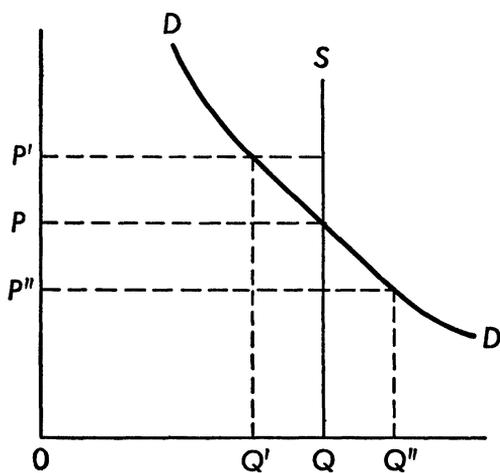


*Introduction to  
Economics*

# *INTRODUCTION*

*TO*



NEW YORK  
TORONTO  
LONDON

# ECONOMICS

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# Preface

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THIS is an elementary introduction to a vast field. We have deliberately refrained from bringing in many of the refinements of theory and for two reasons. First of all, these refinements seem more appropriate to a text for an intermediate course in economics. In the second place, the basic principles as developed in this book seem to provide an adequate foundation on which men of good judgment can build conclusions and recommendations.

After a brief statement of the issues with which economics is concerned, the book starts with a description of certain features common to all economic systems that are based on specialization and the use of money. The national income accounts are introduced briefly at this point and some of their uses and limitations as measures of over-all performance are explained. This is followed by a survey of the operating principles of a predominantly private enterprise economy and of the way in which men *as producers* organize their specialized activities with a view to satisfying their needs *as consumers*. The purpose of this introductory section is to provide the student with guide posts so that he will not get lost as we examine in detail various aspects of a private enterprise economy.

Part Two (Chapters 6 through 15) describes the operations of a market economy under the extreme assumptions of pure competition, a neutral money, and the complete absence of technological change, population growth, and trading relations with other economic systems. The purpose is to show how the forces of supply and demand would, under these circumstances, bring the economy into a position of long-run equilibrium and at one and the same time

determine the allocation of resources and the distribution of the social output among resource owners.

In Parts Three and Four (Chapters 16 through 26) these restricting assumptions are removed one by one. First, the effects of various departures from pure competition are examined. Next, the existence of growth and of economic regions and independent nations is recognized, and it is shown how difficult it would be for the price mechanism to bring about a world-wide general equilibrium even if national governments refrained from interfering with the forces which lead to territorial specialization and trade. In this connection the role of the State in a market economy is examined. Then the assumption of a neutral money is dropped. The operation of a fractional reserve banking system is explained by means of a series of models, and the possibilities of controlling the price level are examined (1) on the assumption of complete isolation and (2) in the real world of independent states with different monetary systems and different goals and aspirations. This discussion ends with an evaluation of the strengths and weaknesses of the international gold standard as a device for promoting international specialization and multilateral trade. The theory of international trade is introduced in connection with this discussion.

The next six Parts (Chapters 27 through 42) deal with what seem to the authors to be the major economic problems confronting the American people today: the control of business fluctuations; the relations of government to business, organized labor, and agriculture; the possibility of introducing social security measures into a predominantly private enterprise system without unduly weakening its adaptability, its productivity, and its capacity to grow; the relationship of all these problems with those which arise from the economic interdependence of nations; and finally the problem of devising a fiscal system compatible with the operating requirements of a private enterprise system and with the realities of political democracy.

Up to this point in the analysis we take no position regarding the ethical validity of the competitive private enterprise system or its superiority (or inferiority) to possible alternative forms of social organization. We simply accept the fact that the American economy is still predominantly based on private property and private initiatives and that our elected representatives believe that their constituents regard these arrangements as desirable from an ethical as well as a narrowly economic point of view. These assumptions appear to be justified by the insertion into the preambles of most

federal laws of statements such as that in Section 2 of the Employment Act of 1946 that the law is designed "to promote free competitive enterprise and the general welfare." In Part Eleven on "Alternatives to Capitalism," we first query these assumptions. With a view to testing them we examine the possibility of substituting for private capitalism the systems of communism, socialism, and comprehensive planning. Of these alternatives, as of private competitive capitalism, we ask this basic question: Can they protect our individual liberties and our political freedoms and at the same time keep the road open for spiritual and material progress? Our own answer to this question, in so far as it has not already slipped out by inadvertency, is set forth in the Epilogue.

The treatment of the national income accounts in the text proper is brief. That is inevitable in a general introduction to economics. For those who wish to acquaint themselves with the way in which the national income figures are derived, we have placed in Appendix A a technical exposition of the national income accounts prepared by our colleague Professor Fergus R. Ormes. It could very well be studied immediately after Chapter 2. We ourselves have found it more satisfactory to use the materials in this Appendix after the study of money and banking and just before the section on business fluctuations.

The questions at the end of each chapter are of two types—*review* questions and *problem* questions. The review questions are intended to indicate to the student the concepts, the facts, and the relationships which he should master before going on. The problem questions are the kind we like to use with a view to showing that theory can illuminate contemporary problems.

The text has benefited from a trial run with our beginning students. We have found it teachable. With work book problems and collateral readings such as are readily available, it is entirely adequate for a full-year course. Chapter by chapter cross-references to six books of Selected Readings and to two Work Books are to be found in Appendix B.

We take this occasion to express our appreciation to the authors and the publishers who have without exception consented to let us use their materials. In particular we are grateful to the Vanderbilt University Press for its willingness to allow us to make free use, sometimes without quotations marks or precise page citations, of ideas developed in *Planning for the South: An Inquiry into the Economics of Regionalism* by J. V. Van Sickle, the senior author of this book. In the same way, we are grateful to Field Enterprises, Inc.,

publishers of *World Book Encyclopedia*, for permission to use various materials from articles on economic topics written by Benjamin A. Rogge, the junior author of this book. It is not always easy for a writer to avoid plagiarizing himself.

Finally we wish to express our gratitude to our colleague Warren Shearer for his critical reading of the manuscript. He has saved us from many errors of fact and theory. There are others too numerous to mention, including students, whose influence is reflected in these pages.

*February 1954*

JOHN V. VAN SICKLE  
BENJAMIN A. ROGGE

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# *I. The Market Economy*

DESCRIPTION AND ANALYSIS

PART ONE

## *Fundamental Concepts*



# *The Nature and Scope of Economics*

---

WITH this sentence many of you begin your first study of Economics. You are about to spend time, effort, and money to gain an understanding of this subject. Do you know what you are buying? If you do, you are unusual. Just what is economics? What can you do with an understanding of economics that you cannot do without it? Why should anyone study economics? This chapter is designed to give you a first, brief answer to each of these questions.

## WHAT IS ECONOMICS?

**A preliminary definition.** Economics is a study of the ways in which people use resources to satisfy their wants. The word *wants* requires little explanation. All of us want the food, clothing, and shelter that we need to stay alive. But most of us (even college teachers!) want much more. We want cars, television sets, vacation trips—in fact, our capacity to want is almost unlimited.

In contrast, the things we want are always limited in quantity. Even in a wealthy country like the United States there is never enough of everything to satisfy all the wants of every person in the country. How to narrow this gap between what people want and what they are able to get is the basic problem studied in economics. We shall refer to this problem as the problem of scarcity.

**Narrowing the gap.** There are two ways to narrow the gap. One is to want less; the other is to get more. Poets, philosophers, the proponents of various religions, and employers often counsel us to follow the first way. History shows that we have usually attempted the second way, the way of getting more, with varying and not-

easily-measured degrees of success. The economist cannot say which way is the better. His studies, however, are limited to the second way, to the method of getting more rather than to the method of wanting less.

**Getting more of what?** The economist limits his studies to the attempts of people to get more of the things they want. But even in this limited area there are things which are outside his field of study. For reasons that will be made clear as we proceed, the economist confines his attention to those things which are exchanged. Useful, scarce goods which can be exchanged are called *economic goods*. All other goods are called *noneconomic goods*.

Many of the things which satisfy human wants cannot be exchanged—the physical potential to play football, the liking of one's friends, the love of family members, etc. It may well be that these sources of satisfaction are more important than the ones which can be exchanged, the ones which the economist studies. However, most people seem to prefer some combination of economic goods and noneconomic goods.

We now have limited the economist to a study of how people go about getting more economic goods—more food, clothing, and shelter, new cars, television sets, etc. Does this mean that each of you can learn how to get more of these things by studying economics? Unfortunately, the answer to this question is, "no."

People who do not understand this often ask us, "You're economists; why aren't you rich?" We regret even more than you do that we cannot tell you how to get rich. What do we mean, then, when we say that economics is a study of the method of getting more? We mean that economics is a study of how groups of people organize the use of resources to accomplish this goal. Let us take a closer look at what this means.

**Using resources: production.** There are two broad classes of resources: human and natural. As human beings we apply our physical strength and intelligence to the resources provided by nature and, barring a mistake in judgment, the result is something which satisfies human wants—a loaf of bread, a symphony concert, or an airplane. This act of creating something which satisfies human wants is called *production*. As we shall see, production in a modern economy is not one act but a long series of acts, performed by many different people, at many different places, and at many different periods of time. Each step, including the final sale of the product or service to the consumer, is part of the process of production.

If resources were so ample or wants so few that we could produce

all of everything that anyone might want, there would be no economic problem (and no economics). But this happy situation can never prevail. Resources are always scarce relative to the wants for the goods and services produced by using resources. Hence, in every society, certain choices or decisions have to be made.

**The critical decisions.** The critical decisions which must be made are: (1) What things are to be produced, and in what amounts? (2) To what task is each person and each unit of natural resources to be assigned? (3) When the goods have been produced, how much is each person to receive as his share? The arrangements used to make (and enforce) these decisions in any society constitute the *economic organization*, or economic system, of that society.

**Types of economic organization.** Each society in the history of man has had a distinctive type of economic organization. Indeed, the economic system of a given society usually changes over time. In spite of this fact, it is possible to classify actual systems as belonging to one of two idealized types. *The first type* is one in which some central agency, usually the central government, decides what is to be produced, who is to do each of the tasks in production, and how the output is to be divided. *The second type* is one in which these decisions are left to individuals who act in response to the indications of what is known as "the price system." In actual life, no economic system conforms completely with either of these idealized systems or models. There is always some blending of central direction and individual decision-making.

In our own times, Germany under Hitler, Italy under Mussolini, Russia under the Communists, and Great Britain under the British Labor Party are examples of economic systems patterned largely after the first type—although there exist significant differences in degree of centralized control and in the amount of personal and political freedom permitted in these countries. The economic systems of the United States and Canada follow the general pattern of the second type of economic organization, although some elements of centralized control are found in each country's economic system.

We shall direct most of our attention in this book to the second type of system. We do this for two reasons: First, the American economy is still predominantly a price-directed economy. Second, a thorough understanding of how this kind of system works is essential to an understanding of the possibilities and the shortcomings of systems based on central direction. The price-directed type of economic system which we shall study in considerable detail is

called by various names: "The Price System"; "The Free Market System"; "The Voluntary System"; "Free Enterprise"; "Free Private Enterprise"; "The Enterprise System"; or "Capitalism." We shall use these designations more or less interchangeably throughout the book.

We shall study the economic systems of the centrally directed type in Chapters 43-45, although we shall make brief references to these systems throughout the book.

**Another definition of economics.** It is now possible to develop a more revealing definition of economics than the one first given. We may now define economics as *a study of how people organize the use of resources to satisfy their wants*. In other words, economics is a study of economic organization. It is a study of how each type of economic organization is supposed to work. It is also a study of how each system has worked in practice, where and when it has been used. It is a study of the problems that arise under each system, and of possible solutions to those problems. It is also a comparative study of economic organization. It examines the relationship of a system to various possible goals of economic life. Which system is likely to bring the largest output of goods and services over time? Which system is likely to bring the most equal distribution of output? of power? Which system is likely to bring the most stable, unchanging way of economic life? Which system is most likely to permit the maintenance of personal and political freedoms?

We shall find that no one system is superior to all others in all respects. For example, we shall find that an enterprise system is likely to produce a larger total output of goods and services than a centrally directed socialist system, but with a less equal distribution of output. The economist as an economist is not competent to pass final judgment on the relative merits of economic systems. He possesses no special insights which enable him to say positively that the size of output is more important than its distribution, that growth is better than stability. He can only point out what can be expected of each system. It is then up to the people to determine which economic system they wish to use.

**Economics and right and wrong.** The line of thinking presented above would seem to indicate that the economist should avoid value judgments altogether. It argues that questions of right and wrong are related to human value systems with which the economist may be deeply concerned as an individual but not as a scientist. In this framework, the task of the economist is to develop tech-

niques for analyzing problems so that he can predict what will happen if a given change is introduced into a given situation. The responsibility then rests with the people, or those in authority, armed with this knowledge, to decide whether the consequences are or are not desirable. Again, given a goal which any group of people desire, the economist can offer useful advice as to the best way of attaining that goal. According to this view, the economist is a technician whose task is to draw up the detailed specifications for a social and economic structure capable of achieving selected goals. He does not pass judgment on the goals. In brief, he is a social engineer, not a social architect.

In general, the authors of this book are in sympathy with this point of view, subject to one important reservation. As a human being the economist will have his likes and dislikes, his preferences, his pet aversions, and his loyalties. As a scientist he must learn to hold these in check. He must not let them color his conclusions. But as a scientist he must have one loyalty, even though it too rests on an assumption. He must believe in the scientific method. What this phrase means was eloquently expressed by the former president of the Rockefeller Foundation, Raymond B. Fosdick, in his 1940 Report:

Science is more than the technologies which cluster about it—more than its inventions and gadgets. It is even more than the discovery and correlation of new facts. Science is a method, a confidence and a faith. It is a method of controlled and rechecked observations and experiments, objectively recorded with absolute honesty. It is a confidence that truth is discoverable. It is a faith that truth is worth discovering. . . . The assumption has to be made that there is time for intelligence to take hold, that the world of the future will still be a free world in which reason rather than force will control. This assumption may be a leap of faith but it is only through faith that men will find courage to face, with what intellectual tools they can devise, the towering obstacles ahead.<sup>1</sup>

Science and freedom are inseparable. The economist cannot be true to science unless he is free—free to speculate, to criticize, to compare and to predict, for prediction is the end goal of science. Freedom is one of the few absolutes which the scientist must recognize. For this reason, we will call that economic system, economic policy, or economic action *wrong* which seems to present a clear threat to the maintenance of freedom. Freedom is not at issue in most of the economic policies and actions discussed in this book. Consequently, the words, right and wrong, will be used

<sup>1</sup> The Rockefeller Foundation, *A Review for 1940*, pp. 43 and 51.

sparingly. When they are applied to given actions, we will always attempt to show why we believe the actions to be directly related to the maintenance of freedom.

When our study turns from individual actions to total economic systems, we shall examine the question of whether the opportunity for personal and political freedom rests on the choice of economic system. More particularly the question will be asked whether these freedoms can be maintained in a society using a centrally directed economic system. This is one of the most important and controversial questions of our day, but it cannot be discussed intelligently until an understanding is gained of the way in which economic systems based on the two idealized types operate.

However, and for the reasons noted before, most of our study will be directed to acquiring an understanding of how a private enterprise system operates, rather than to a study of comparative economic systems. In explaining how this system operates, we shall do as an engineer does in explaining the operation of a machine. The engineer does not say that there are two sides to the question of whether oil or sand is the better lubricant for the moving parts of the machine. He places his approval on oil as the lubricant. In the same way, as economists, we shall approve of those actions or policies which are clearly needed to make the enterprise machine run efficiently and we shall disapprove of those actions and policies which clearly reduce its efficiency. When there is reasonable doubt about the consequences of a given action, we shall indicate as much.

**Economics and the other branches of learning.** There does exist a central body of materials, problems, and questions which can be identified as the subject matter of economics. However, these materials can be understood only through some use of all of the branches of learning, particularly of the other social sciences. Economics is *history* to the extent that the economist must turn to history for an understanding of how economic systems have developed (and declined) and of how they have worked in practice. Economics is *sociology* to the extent that the economist must examine the social conditions necessary to permit each type of economic system to operate efficiently; in the same way, he must give attention to the social consequences that seem to follow from any given economic system, policy, or action. Economics is *psychology* to the extent that it must be based on the behavior of human beings. Economics is *political science* to the extent that every economic system must operate in a political environment and will influence

and be influenced by that environment. Economics is *mathematics* in the sense that any science which treats of quantities and relations is mathematics. When it is concerned with the techniques of production and the natural environment, economics merges with the *physical sciences*. Finally, if and when economics approaches the task of saying what is right and what is wrong, it must turn to *philosophy and religion* for standards. The person who would understand economics must never lose sight of the relationships between economics and these other branches of learning.

### WHY STUDY ECONOMICS?

If you were living in a totalitarian society, there would be little reason for you to make an attempt to understand the economic system of your country. You would have no voice in selecting the type of system to be used or in solving the broad problems of economic life. Only curiosity would prompt a study of economics.

But you live in a democratic society. Through your votes and your participation in public life you help determine the policies of your country. You do have a voice in selecting the type of economic system to be used, and in making it work. If you do not understand the advantages of the various systems, you cannot make a reasoned choice among systems. If you prefer one type to another, but only on emotional or intuitive grounds, without any understanding of its operating requirements, you may, in ignorance, support measures that will produce results which you neither intended nor desired. In a democratic society everyone—not just the professional economist—should have some understanding of economics and of the economic system under which he lives.

But doesn't this understanding come automatically through participation in economic life? It is true that each person participates in economic life, certainly as a consumer, perhaps as a producer, usually as both. Through this participation, each person gains some acquaintance with the workings of one or more parts of the economy. But the economy is made up of many, many parts, and the most important aspect of economic understanding is a knowledge of how the parts fit together, i.e., a knowledge of economic organization. To understand economic organization, the forest of economic life, it is necessary to know more than the details of a few of the trees in the forest. For this reason, the average person who wishes to understand economics must supplement his own experiences with a more or less formal study of economics as such.

At the same time that a study of economics is training for citi-

zanship, it can contribute to strictly personal goals as well. Most importantly, it can contribute to your awareness and understanding of the world about you. The person who has studied architecture is more "alive" to the world of form and structure in which he lives than are those of us with untrained perceptions. To the naturalist, a walk in the woods can be a more exciting and perhaps more complete experience than to the person who is largely unaware of the forms and processes of nature. The musician derives a more complex satisfaction from listening to a symphony than the non-musician.

In the same way, an understanding of the forms and processes of economic organization can make even a reading of the daily paper a more satisfying experience. In other words, an understanding of economics can offer you all of the personal advantages of knowing over not knowing, of understanding over ignorance. If you are possessed of any intellectual curiosity, these advantages alone will compensate you for the time and effort devoted to a study of economics.

### *Questions:*

1. Distinguish between an economic good and a service; between a free good and an economic good.
2. What are the two ways of narrowing the gap between what people want and what they are able to get? Can the economist say which of these ways is the better?
3. Suppose that, through the intervention of a benevolent uncle, you were put in a position to satisfy all of your *present* wants. Do you think that the gap between what you want and what you are able to get would then be closed? Why or why not?
4. "The economic organizations of all societies past and present appear to fall predominantly into one of two classifications or types." Can you think of any exceptions to this statement? What are the two types the authors have in mind?
5. List and keep for re-examination at the close of the course the goals which *you* think a good economic organization should realize. In the event that some of the goals conflict with others, indicate by ranking which you would sacrifice.
6. Write out and file for future reference the definition of economics that emerges from this chapter and list five major issues which you think should become clearer as a result of a study of economics.

## *Features Common to All Economic Systems*

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IN THE next chapter we shall begin a rather detailed study of how a particular economic system operates, the one that has come to be known as "private enterprise." In this chapter we shall consider certain features of economic life that are common to all economies involving specialization and exchange. This chapter and Chapter 3 are designed to present a "view of the whole," a broad outline into which we shall later insert the details. As you proceed through the book, an occasional rereading of these chapters may assist you in tying together the varied materials on the structure and operation of an enterprise system.

Economic life under a private enterprise is not *totally* unlike economic life under other forms of economic organization. The famous visitor from Mars would probably have difficulty recognizing that different peoples were working under different economic systems. Wherever he visited in the Western world he would find men and women going to work in factories, shops, mills and mines, and on farms. He would find them working with complex pieces of machinery, on special tasks, and under the direction of "bosses." Only by going behind these external activities to the methods used in guiding, motivating, and rewarding the people would he be able to perceive that differences do exist. The external features of economic life common to all modern forms of economic organization are the subject matter of this section.

**Wants.** To be human is to want food, clothing, shelter, and other economic goods. Certainly, then, the existence of wants cannot be accepted as a distinguishing feature of private enterprise. Human

wants are the mainspring of all economic action, whether that action is to take place under the rules of private enterprise or of a centrally directed economic system.

To be human is also to want more of these economic goods than can be supplied. Thus even the existence of unsatisfied wants is not unique to private enterprise. Neither history nor our knowledge of human nature gives us any reason to believe that any economic system, however efficient, will ever be able to produce enough goods and services to satisfy *all* the wants of *all* the people.

**Resources.** To obtain economic goods, the people of all societies must produce, and to produce is to use resources. The basic resources are everywhere the same: (a) *man* and (b) *nature*. These are man's only weapons against scarcity, and how well he succeeds in satisfying his wants depends on how well he uses these resources.

Economists use the term *land* to refer to all natural resources in their natural states. When these resources have been processed and delivered to consumers, they become *consumer goods*. When they have been processed but, instead of being delivered to consumers, are used as instruments in the production of other goods, they become *capital goods*. The fabricating of nature's resources into instruments of production—the use of capital goods—is common to all but the most primitive economies. If by capitalism we mean an economic system using capital goods, then even modern communism is a form of capitalism!

Nor is the existence of a class of specialists in collecting and guiding resources for the purpose of production, i.e., the existence of a *management* group, unique to private enterprise. In all forms of economic organization, some persons must perform the management role, whether as private, profit-seeking businessmen, farmers, etc., or as employees of the State. A boss-worker relationship is inevitable in any economy where large numbers of men must work at a common task.

All the nonmanagement contributions of man to the process of production are identified by the term *labor*. The four basic resources recognized by economists—land, labor, capital, and management—are common to all modern forms of economic organization.

**Specialization.** Another characteristic feature of modern economic life is specialization. Any group of people who want to attain even reasonable efficiency in producing goods and services must divide the various tasks involved in production among various individuals and regions so that each person and each region is used

to the best advantage. Chapter 4 is devoted to a study of this characteristic of modern economies.

**Money.** Specialization involves the *exchange* of goods and services, and exchange on any but the simplest scale necessarily involves the use of money. Money is defined as anything that is generally accepted in exchange for goods and services. Some of the most important problems that confront a private enterprise economy arise from the use of money, but neither the problems nor the use of money itself is unique to the private enterprise form of economic organization.

**The circular flow.** Whatever the form of economic organization, the basic processes of economic life consist of a circular flow between households and firms. The *household* is the basic consuming unit in economic life. It is usually centered around the family unit. The *firm* is the basic producing unit in economic life. It may be a grocery store (privately or publicly owned), a steel mill (again privately or publicly owned), or a farm ("collective" or otherwise). The distinguishing characteristic of the firm, whatever the form of economic organization, is that it is a collection of resources brought together under centralized direction for the production of a particular good or goods.

The heart of the circular flow is the movement of resource services (the services of land, labor, capital, and management) from the households to the firms, and the reverse movement of goods and services from the firms to the households. This, the *primary circuit*, is illustrated in Fig. 2-1.

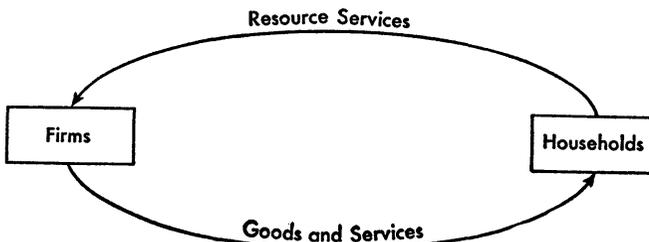


FIG. 2-1

In any economy employing money, there exists a second circuit, which may be called the *monetary circuit*. Households in a modern economy do not "barter" their resource services for goods. Rather they exchange them for money, and then exchange the money for goods. Thus the monetary circuit consists of a flow

of money from the firms to the households, and a reverse flow of money (in the form of payments for goods and services) from the households to the firms. The double-circuit flow is illustrated in Fig. 2-2. The flow of money income payments from firms to house-

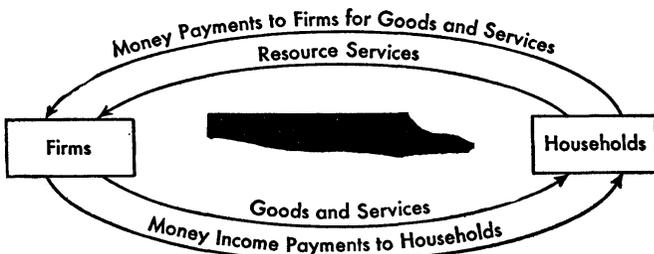


FIG. 2-2

holds represents expenses of production from the point of view of the firms and income from the point of view of the households. Similarly the money payments to firms for goods and services represent the consumption expenditures of households and the gross revenues of the firms.

This circular flow (sometimes known as the “wheel of wealth”) is common to all modern economies; it exists whether resources are publicly or privately owned and whether the decisions that produce the flow are made through a market mechanism or in the offices of a central planning board.

### THE NATIONAL INCOME ACCOUNTS

The economic well being of the people in a society is largely determined by the size, the distribution, and the regularity of the flow of goods and services from firms to households as described in the preceding diagrams. For this reason, measurements of these (and other) aspects of the flow are important materials in economic analysis, regardless of the type of economic system under study. These measurements are usually referred to as the National Income Accounts.<sup>1</sup>

The problems involved in arriving at even rough estimates of the total flow and of various components of the total flow are extremely complex. In this section, we shall make no attempt to deal with the more complex conceptual problems that are involved in national

<sup>1</sup> In this country, the most comprehensive of such measurements are undertaken by the Department of Commerce.

income accounting. However, because of the importance attached to national income accounting in modern economics, we have included in an Appendix a step-by-step picture of the construction and interpretation of the national accounts. In this section we shall be concerned with the uses to which the accounts may be put, with the conceptual framework of national income accounting, with a description of the important elements in the accounts, and with the reliability and usefulness of the accounts for the purposes of economic policy-making.

**Important uses of national income accounts.** Some of the more important uses of the income accounts are: (1) They may be used in rough comparisons of the economic well being of a people at one period of time to their well being at other periods of time. For example, they provide us with rough answers to the question, "Are we better or worse off than we were twenty (or fifty) years ago?" (2) They may be used in (very) rough comparisons of the economic welfare of the people in one country to the welfare of the peoples in other countries where such measurements are attempted. Is the American level of living higher or lower than that of Canada? of Sweden? By how much? These are the kinds of questions to which the national accounts provide approximate answers. (3) Measurements of the various components of the total flow provide valuable information on the *structure of production*, i.e., on what types of goods are produced and in what amounts, and on the relationships over time among the various components. How much of the total consists of nondurable consumer goods? of durable consumer goods? of durable producers' goods? What is the relationship between changes in the output of consumer goods and changes in the output of producer's durables? (4) The national income accounts provide valuable information on the phenomenon of alternating waves of prosperity and depression—on what happens during the course of such cycles, on why the wave-like movements take place, on what the business outlook is at any moment of time, on what might be done to smooth out the extremes of boom and bust. The adequacy of the currently available national income accounts for these purposes will be discussed in a later section.

**The concept of national income.** Any given national income figure is at best a statistical abstraction. It is a number, more or less arbitrary, certainly artificial, which is to stand for something real; but for what? Just what does a national income total measure? Let us begin an answer to this question with a description of the various meanings that may be attached to the single word, income.

*Three types of income.* Economics is concerned with the satisfaction of human wants. From this it follows that a person's income might be thought of as the flow of satisfactions received by that person over a given period of time. This type of income is referred to as *psychic income* and is clearly the type of income that is relevant to questions of human welfare. Unfortunately, there is no standard unit for measuring satisfactions, nor any convenient way of using such a unit if one existed.

An income measure that avoids the problem of measuring satisfactions, and is useful in its own right, is one that deals with the flow of goods and services received by an individual over a given period of time. This is referred to as *real income*. Unfortunately, even this flow of real goods and services cannot be measured *directly* because of the diverse character of the items that enter into the flow. How are pounds of pork chops to be added to gallons of milk, to bushels of wheat, to some number of haircuts? No meaningful sum could be obtained by adding a collection of such numbers.

An income measure that avoids this difficulty, as well as the difficulty of measuring satisfactions, is one that deals only with money, that is simply a count of the number of dollars received by a person over a given period of time. This is referred to as *money income*. For a given person, and with some difficulty, money income measures can be turned into rough measures of real income; with even greater difficulty, real income measures can be turned into very rough measures of psychic income. When it is the income of a nation which is involved, rather than that of a single person, these transformations become even more difficult and the resulting estimates even less reliable. However, money income and real income measures are useful in and of themselves.

*The unit of measurement.* The unit of measurement in national income accounting is the standard money unit of the country, e.g., the dollar in this country and the pound in Great Britain, the franc in France, the mark in Germany, etc. This is not the same as saying that all national income accounts deal with money income only. Rather it means that every item in whatever total is being measured, whether it be money income, real income, or something else, is assigned a dollar value, and the dollar values are then summed to arrive at the total. This is done, as was described above, because the money unit is practically the only standard unit in which each of the items can be expressed.

*The flow to be measured.* The two-circuit wheel of wealth de-

scribes four separate flows: (1) the flow of resource services to the firms, (2) the flow of goods and services to the households, (3) the flow of money to the firms in the form of payments for goods and services, and (4) the flow of money to the households in the form of payments for resource services. Only the first of these—the flow of resource services to the firms—is of little use in the problem at hand. The other three flows can all be used as rough approximations of the income of a society. In fact, all three are used at one time or another in modern national income accounting. The question of when each flow should be used in developing certain aggregates would take us into a more sophisticated analysis than is necessary or advisable at this point. It is sufficient to know that the national accounts may make use of (1) the total value of goods and services produced, or (2) the total expenditures for those goods and services, or (3) the total income payments to resource owners.

*The time period.* The magnitude of a continuous flow, whether of water or of goods and services, must be measured in terms of a rate, i.e., in terms of quantity per period of time. The flow of water through a main, for example, is often measured in terms of the number of gallons per hour passing through the main. The time period used in National Income Accounting is usually one year. The use of any arbitrary time period creates difficulties (see Appendix A), and the one-year period is as convenient (or inconvenient) as any other. On other grounds, the one-year period has much to recommend it. For example, many of the data used in national income accounts are derived from individual accounts constructed with one year as the accounting period.

**The important aggregates.** Measurements of the flow of goods and services to an economy over a given time span give rise to several meaningful sums, rather than one. National Income, in the technical sense in which it will be described below, is but one of these sums (or aggregates). The most important aggregates developed in national income accounting are (1) Gross National Product (GNP), (2) Net National Product, (3) National Income, (4) Personal Income, and (5) Disposable Personal Income.

*Gross National Product.* The total output of goods and services of the economy over a given period of time is called the Gross National Product for that period of time. This output is measured in money values, for the reasons already outlined. To make sure that each unit of a particular good or service is counted but once and to take account of the fact that not all goods attain the finished stage in the course of a given time period, the money value to be

used in the total is assigned to the unit at the highest stage of production it has reached during the period. This avoids the error that would be involved, for example, in counting both the value of the flour and the value of the wheat from which that flour was made.

*Net National Product.* In the course of producing the goods and services that enter into Gross National Product, some "using up" of the capital goods of the economy is inevitable. When this depreciation of capital goods is subtracted from the Gross National Product, the remainder is the Net National Product of the economy. This, too, is expressed in terms of money values.

*National Income.* Both Gross National Product and Net National Product are aggregates based on the output of goods and services. National Income is an aggregate based on the incomes earned in the production of those goods and services. If the entire value of the Net National Product were passed on to the earned-income accounts, the money value of the Net National Product would be exactly equal to the money incomes earned in the production process, i.e., Net National Product would be exactly equal to National Income. In fact, not all of the money value of the goods and services produced can be credited to the earned-income account. Out of this money value the firms who do the producing must pay various indirect taxes to various units of government. However, a money value can be assigned to these indirect taxes, and National Income can be derived directly from Net National Product. National Income is equal to Net National Product minus indirect business taxes.

*Personal Income.* Personal Income is the income actually received by households during the given period. If the firms were to pass on all of the earned income to the household, Personal Income would be exactly equal to National Income. However, firms may retain some of the earned income (or they may pay out more than has been earned). Also, the firms must pay taxes on their earnings (profit), and this reduces the total that is available for payment to households. Finally, households often receive payments from the various units of governments in the form of social security benefits, pensions, etc. These payments which do not represent payments of earned income are referred to as *transfer payments*. Thus Personal Income is equal to National Income minus retained profits and taxes on profits and plus transfer payments.

**Disposable Personal Income.** If there were no levies on the incomes received by households, the total amount of money which

the households could dispose of as they wish would be equal to Personal Income. However, some part of Personal Income must always be used to pay the various personal taxes levied by the various units of government. Thus, Disposable Personal Income is equal to Personal Income minus personal taxes.

### THE COMPONENTS OF TOTAL SPENDING

The Gross National Product is a measure of the total spending of all economic units for goods and services over the given period of time. This aggregate, total spending, is an important aggregate in economic analysis. For example, it is used extensively in the analysis of business cycles. Of equal importance are the various components of total spending. The components of total spending are identified in terms of the types of goods purchased and also in terms of the sources of total spending.

*Types of goods purchased.* In terms of types of goods purchased, total spending may be broken down into (1) spending for *consumer goods* and (2) spending for *producers' goods*. Each of these types of spending may, in turn, be broken down into (1) spending for *durable goods* and (2) spending for *nondurable goods*. Sometimes government-produced goods and services are added to consumer goods and producers' goods to yield a three-way classification.

*Sources of spending.* The total spending in an economy is the sum of the spending by four different source groups: consumers, private investors, units of government, and foreign buyers. *Consumption spending* by households is the largest single element in the spending total. *Investment spending* (the purchase of producers' goods) by firms, while usually much smaller in total than consumption spending, is of great importance in economic analysis. For example, the level of this type of spending is an important determinant of the rate of economic progress. A high level of investment spending means that a large number of buildings, machines, tools, etc., are being added to the productive equipment of the economy, which normally means a larger output of goods and services in the future. Investment spending is also one of the most volatile elements in total spending, i.e., it is subject to rapid swings from one level to another. For this reason, investment spending comes in for close scrutiny in the study of business cycles.

*Government spending* is assuming an ever-more important role in the total spending in modern economies. The reasons for this need not concern us here; it is important only to recognize that

the various units of government represent an important source of total spending, both because of the volume of the spending and because of the directness with which it can be changed in response to public policy decisions.

*Foreign spending* is the fourth type of spending; it varies in importance from country to country. The purchase of English goods and services by buyers in other countries is a very important element in the total spending for the output of the English economy. While less important to our own economy, foreign spending is still a significant variable in the spending equation.

### SOME IMPORTANT RELATIONSHIPS

The major part of the National Income of a country is usually spent directly on consumer goods. That part of the National Income which is not so used, which is not spent on consumer goods, is described by the economist as *savings*. It follows from this that National Income is equal to consumption spending plus savings. If National Income is designated as  $Y$ , consumption spending as  $C$ , and savings as  $S$ , this relationship may be expressed in the equation,  $Y = C + S$ .

If we now view National Income in terms of the expenditures for goods and services and if we classify all expenditures as being made either for consumption goods or producer's goods (investment), it follows that National Income is also equal to consumption spending plus investment spending. If investment spending is designated as  $I$ , this relationship may be expressed in the equation,  $Y = C + I$ .

No involved algebraic manipulation is needed to show that, if  $Y = C + S$  and  $Y = C + I$ , then  $S$  must be equal to  $I$ . That is, savings is equal to investment. This relationship will come in for more intensive study in various later sections, particularly those dealing with business cycle analysis.<sup>2</sup>

### THE LIMITATIONS OF NATIONAL INCOME ACCOUNTS

Even the most sanguine of national income accountants would not claim perfect accuracy for his figures. The figures obtained are at best but rough approximations of the true figures. The question

<sup>2</sup> We have presented here a very simplified statement of these relationships. The equations can be expanded to take account of government expenditures and receipts and of exports and imports, but the basic equality between realized savings and investment remains. We shall develop the more complex patterns as the need for them as analytical tools arises, particularly in the discussion of business cycles and foreign trade.

is not whether error exists but whether it is of such magnitude as to destroy the usefulness of the accounts. No single answer can be given to this question; an error that would not be serious when the figures are being used for one purpose may be very serious when another purpose is involved.

In general the figures obtained are more valid measures of money income than of real income, and more valid measures of real income than of psychic income. Changes in money income reflect changes in two types of variables, prices and quantities. Changes in real income require figures that reflect only changes in quantities. This necessitates the "deflating" of money income figures to eliminate the influence of price changes. However, this process opens the door to other uncertainties (see Appendix A) and the validity of the resulting estimates as measures of real income changes is always open to some question.

It is even more difficult to make valid inter-temporal or inter-country comparisons of psychic income. The precise relationship between real income and psychic income for even a given individual is so difficult to determine that the transformation of real income into psychic income measures is almost impossible.

Another important use for the national income accounts is in forecasting, particularly in forecasting the level of spending and employment at some date in the future. For this purpose not only must the various aggregates be relatively accurate, but also the movement over time of those aggregates and the relationships among them must be predictable. Results obtained so far in the use of national income accounts for purposes of forecasting would not seem to justify undue optimism. However, the continuing improvements in both data and techniques may warrant some optimism about the possibility of accurate economic forecasting in the future.

### *Questions:*

1. Discuss each of the statements below.
  - (a) "A distinguishing feature of the private enterprise system is that the people under it always want more goods and services than can be produced."
  - (b) "A distinguishing feature of the private enterprise system is that the firms use capitalistic methods of production."
  - (c) "A distinguishing feature of the private enterprise system is the fact that a worker must take orders from a boss."

2. (a) Identify in general terms the two circuits that constitute the wheel of wealth.  
(b) Identify the two flows that make up each of these circuits.  
(c) Which of these four flows is most significant for problems of economic welfare? Why?
3. (a) Trace the direct path of relationship between Gross National Product and Disposable Personal Income.  
(b) Under what circumstances would it be possible for the sum of Personal Income and profits taxes to be greater than National Income?  
(c) Is it possible for a people to consume more goods in a given year than they produce in that year? If so, then how?
4. Explain how it is possible for the real income of a nation to decrease and, at the same time, for its money income to increase.
5. Do you think that the average American today is happier than the average American a hundred years ago? Describe some of the problems that are encountered in answering a question of this kind.

## *The Private Enterprise System: A Preview*

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IN THE preceding chapter economic life was described as a process in which resource services flow to firms where they are put to use in the production of goods and services. The flow of these goods and services from the firms to the households completes the primary circuit of the wheel of wealth. The wheel of wealth is a generalized description of economic life, applicable to all types of economic systems.

If economics as a social science were to go no further than a description of this general pattern, it would be of very limited usefulness. The most important questions about economic life are concerned with the forces that drive and direct the two flows that make up the primary circuit of the wheel of wealth. What causes the wheel to turn? How are the decisions made that result in particular resource services being used by particular firms to turn out particular goods and services?

Answers to these questions must be sought in the area of economic organization, i.e., in the arrangements used to make (and enforce) the critical decisions in economic life (see pp. 5-6). This book is largely concerned with a detailed study of how the so-called free private enterprise system operates. Starting with the next chapter, we shall cover this ground "on foot," moving slowly, with frequent pauses to examine at close range some particular aspect of an enterprise system. This chapter may be thought of as a trip "by plane" over the same area. It presents a brief picture of the enterprise system—what it is, how it developed, how it works.

### WHAT IS THE PRIVATE ENTERPRISE SYSTEM?

**A definition.** A private enterprise type of economic organization is one in which (1) the critical decisions in economic life are made by self-seeking individuals, guided by prices and disciplined by competition; (2) most of the means of production are privately owned and controlled; and (3) rewards are approximately in proportion to contributions.

**A brief history.** Some insight into the characteristics of the system can be gained by examining how and why this type of economic organization developed. Certain features of free enterprise can be found in all economic systems, even those of primitive man. However, the system cannot be found in anything like complete form until we reach the England and America of the late 18th and early 19th centuries. Free enterprise did not develop in these countries at this time as a result of a deliberate plan. Rather it came in by the "back door," as the existing form of economic organization—mercantilism—gradually broke down. *Mercantilism* was a set of economic policies directed to the goal of making the nation stronger than its rivals. The policies called for substantial control by the government of the economic life of the people of the country and its colonies—what they should consume, what they should produce, where and at what wages they should work, where they should invest their money, etc. Mercantilist theory and mercantilist practice were based on the assumption that there was an inherent and inevitable conflict between the national interest and the selfish interests of the individuals who made up the nation.

The restrictions that the British parliament placed on the economic life of her American colonies were part of mercantilist policy. The discontent produced by these restrictions was one of the factors leading to the American Revolution. Within England, too, this system of controls became more and more unpopular and more openly violated. For example, it is estimated that, at one time in the 18th century, more than one-fourth of the population of the coastal areas of England was engaged in smuggling, particularly in bringing in forbidden goods from France. Gradually the detailed regulations such as the one making it a crime to wear anything made of colored calico, were modified or repealed. Step by step the economic life of England was freed from the excessive control of mercantilism, and free enterprise was under way.

Free enterprise came into existence as a reaction to detailed government control of economic life. Its further development was

promoted when the free enterprise idea was presented in positive form. Many writers contributed to the idea, but it was left to the Scottish philosopher, Adam Smith, to give the first reasonably rounded account of how such a system might be expected to work. In his famous book, *The Wealth of Nations*, which, incidentally, appeared in the same year (1776) as our Declaration of Independence, Smith demonstrated that a country's interests can be effectively served by permitting each person to make his own decisions and follow his own self-interest in economic life. This is the central idea of the free enterprise system.<sup>1</sup>

### HOW DOES THE SYSTEM WORK?

But how can an economic system work in which each person is left free to do as he pleases? How can the activities of farmers, miners, factory workers, businessmen, etc., be coordinated without some person or group exercising central control? Let us start our answer to this question by recalling the problems of organization which must be solved by any kind of economic organization. The problems are: (a) to decide *what* is to be produced and in what amounts, (b) *who* is to perform each of the tasks involved, and (c) *how much* each person is to get as his share of the output.

**The "what" decision.** Under an enterprise system the "what" decision is made by the consumer. Through the way he spends his dollars he determines what is going to be produced and in what amounts. When he wants more cars and fewer horsedrawn carriages, he casts more of his dollar "votes" for cars and fewer for carriages. This control by the consumer of what is to be produced is often referred to as *consumer sovereignty*. We shall study the decision-making of consumers under the general heading of *demand*.

**The "who" decision.** *Profits and losses.* The dollar "votes" of consumers represent the orders to the firms in the economy telling them what they should produce and in what amounts. However, each firm is free to produce whatever it pleases. What assurance is there, then, that the firms will produce the things wanted by consumers? The answer is that the more votes there are for a good, the more dollars there are for the firms producing the good; the less votes, the fewer the dollars. The reward for obeying the consumers is profits; the penalty for disobeying is losses. It is the desire for profits and the fear of losses which lead the managers of the firms

<sup>1</sup> The idea that a good society can be grounded on self-interest appears to many to involve a self-contradiction. For a statement of Adam Smith's reconciliation of self-interest with his strong ethical views regarding right and wrong, see pp. 33-34.

to do the bidding of consumers—to produce more cars and fewer horse-drawn carriages. Because profits can be made only by producing something that consumers want and consider useful, production for profits becomes just one way of getting production for use.

Profits and losses are part of the signal system of an enterprise economy. They guide firms into the production of the things more wanted by consumers and out of the production of the things less wanted by consumers. Profits and losses have a very important function to perform in an enterprise economy. We shall discuss the responses of firms to the dollar votes of consumers under the heading of *supply*.

*Freedom of job choice.* The managers of firms cannot produce goods without help. To begin with, they need the help of workers. How are workers assigned to the various tasks under an enterprise system? The answer is that each worker decides where and at what job he is going to work. What assurance is there, then, that the workers will follow the wants of consumers, that they will work at the job of producing cars rather than carriages? The answer lies in the fact that the workers, like the managers of firms, are guided by self-interest. They wish to make higher wages and avoid wage cuts. If they want higher wages and continuous employment, they will work for the firms producing cars, the firms that have received the most dollar votes with which to pay workers.

Wages, too, are an important part of the signal system of an enterprise economy. Relative wages, in combination with employment opportunities, guide workers into the production of the things wanted by consumers and out of the production of things that are not wanted. Profits and relative wages also determine in part *where* particular economic activities will be carried on. That is, if wages are higher in one part of a country than another, workers will tend to move from the low wage areas to the high wage areas, and firms will tend to move from the high wage areas to the low wage areas. This movement tends to equalize wages and makes for a better use of resources. We shall give particular attention in our chapters on wages and on wage problems to this function of relative wages.

*Private property.* It takes more than the labor of human beings to produce goods in a modern industrialized economy. It takes land, buildings, tools and machinery, raw materials, and power as well. What assurance is there that these nonhuman resources will do the bidding of consumers? The answer lies in one of the distinguishing features of free enterprise: private ownership of the means of production. Each unit of land, each building, each tool,

and each machine is owned by some person or persons. The owners of these resources receive incomes from selling the services of their resources to the firms. The firms producing cars will be able to offer better opportunities—higher rents, higher interest rates, and higher prices—to the owners of the land, capital, and raw materials than will the firms producing carriages. The necessary nonhuman resources will move into the car industry and out of the carriage industry.

Self-interest, made effective by the device of private property, leads the owners of the nonhuman resources to put them to the uses which consumers desire. Rent on land, interest on capital, the prices of raw materials—all these are parts of the signal system of an enterprise economy. They serve to guide the nonhuman resources into the most productive uses.

It can be seen from this discussion that private property in an enterprise system is simply a device to assure that the nonhuman resources needed in production will be put to their best uses. Private property can be justified on the basis of the important function which it performs and need not be justified on any ethical grounds. We shall be concerned with the ethical question of private property when we turn to an examination of other types of economic organization.

**The “how much” decision.** The consumers have selected the things to be produced; the firms have used the resources, both human and nonhuman, to produce the desired goods and services. The only problem remaining is how to divide this output among the people in the economy. On what basis is this division made under free enterprise?

In the first place, each unit of each good (each car, each loaf of bread) goes to that person who is willing to pay the most for it. In effect, the prospective buyers of a given stock of a given commodity keep bidding up the price of the commodity. As the price goes up, the buyers who would prefer to spend their available resources on other goods keep dropping out. Eventually a price is reached at which the quantity that buyers are willing to take is just equal to the quantity available. This will be the going price, the price which “clears the market.” This is simply a rationing process under which goods go to those who are willing to give up the most to get them. Other things being equal, this will lead to the goods being used in such a way as to satisfy the most wants. We shall discuss this and other rationing schemes in later chapters.

The *total* amount of goods a person will be able to buy will de-

pend on the prices of the goods and on the size of his income. In general, the size of each person's income depends on the productivity of the resources which he owns. For example, the more productive the labor of a worker, the more will firms be willing to pay for that labor, and the higher will be the income of the worker. By distributing income on this basis each person is given an incentive to put his resources in those uses where they will be the most productive (where they will contribute most to satisfying consumer wants). This way of distributing income is essential to the system because it provides the incentive needed to get people to do the bidding of consumers. At the same time, this way of distributing income always produces an *unequal* distribution of income. This fact can lead to serious problems if the people of the society are not willing to accept a substantial amount of inequality in the distribution of income. We shall have occasion to consider later how far and in what ways income can be redistributed in an enterprise economy without destroying the incentives and the signals which are necessary if it is to operate effectively.

**Economic progress.** The level of living of a people can be improved by moving resources from low-productivity to high-productivity uses, from uses where they satisfy few wants to uses where they satisfy more wants. However, sustained and rapid improvement in levels of living usually requires more than this. It requires not only a better use of the given resources but also an improvement in the *quality of resources*, an increase in the *quantity of resources* available (particularly, the nonhuman resources), and an improvement in the *techniques of production*. These are the three basic elements in economic progress.

How is economic progress promoted under an enterprise system? The answer again is self-interest. Self-interest leads the worker to increase his productivity so that he contributes more wherever he works. Self-interest leads other people to search for new sources of raw materials, and for ways of making existing supplies go further. It leads the managers of firms to seek new and better ways of doing things. Self-interest is the driving force behind economic progress in an enterprise economy. That it is a potent driving force is demonstrated by the record of progress in the United States under this system. That it involves stresses and strains will become clear when we enquire into the causes of the business cycle. We know that economic progress is possible under private enterprise. We shall have occasion later to consider whether it is equally possible under a centrally directed type of economic organization.

**The role of saving.** One thing is clear: progress is not cost-less. It requires frequent and sometimes unwelcome personal adjustments. In addition, it requires *saving*. Resources which could be used to make more things of immediate usefulness—more food, more clothing, more cars and refrigerators—must be devoted to increasing the *quantity* and improving the *quality* of resources, and supporting those who are busy devising new and better ways of organizing resources.

Saving, from the point of view of society as a whole, occurs when resources are released from the production of consumption goods. These savings are always made by individuals, voluntarily or involuntarily. They occur whenever a person refrains from spending all his income. But whether such savings result in social saving depends upon the use of the savings. If they are borrowed and spent by a spendthrift, there is no saving from the social point of view. What A saves, B spends. Only as they are used to maintain and improve the apparatus of production do they permit a people as a whole to live better in the future.

Saving is necessary to economic progress under any type of economic organization. Under centrally directed systems, the central planning group decides how much is to be saved, who are to do the saving, and how the savings are to be used. Under the enterprise system these three decisions are left to individuals. In later chapters we shall explain how the system is supposed to bring it about that *all* that individuals *choose to save* will be put to effective use, and what happens when people save and their savings, for some reason or other, fail to be put to effective use.

**The role of competition.** The system just described will not work efficiently under any and all conditions. Perhaps the most important requirement is that of competition. A brief but precise definition of competition is difficult to construct. We shall content ourselves with a meaningful but rather inexact definition at this time. Competition is rivalry for income by the method of offering more for less. It was Adam Smith's recognition of this force that led him to predict that, in any society in which competition was protected and encouraged, there would be an essential harmony between individual self-interest and the national interest; that individuals, in striving to promote their own interest, would, without being aware of it, promote those of their fellows. Competition is the disciplining force in all buying and selling activities. Buyers compete against buyers, sellers against sellers, workers against workers, employers against

employers, savers against savers, landlords against landlords, and so on, throughout the whole range of economic life.

**International trade.** So far we have been discussing the operation of an enterprise economy as if there were no other countries in the world but the one under study. Actually every country that attempts to use an enterprise system is part of a world economy. As we shall see, trade between the peoples of different nations develops for the same reason that it does between the people of Indiana and the people of Florida. By specializing, by taking advantage of the distribution of natural and human resources, the people in each area can produce more than would be possible without trade. We shall give considerable attention to the nature, mechanics, and problems of international trade in later chapters.

**The role of government.** The enterprise system is often (and rightly) associated with the concept of *laissez-faire*. Literally interpreted, this phrase means "leave it alone." When applied to economic life *laissez-faire* is usually understood to mean that the government should let the people do as they wish and should keep its hands off the economy. But this is only a half-truth. Although an enterprise system is designed to operate without detailed central control and direction, the government nevertheless has a very important role to play in making the system work.

*Providing a reliable money.* One of the most important responsibilities of government is related to the use of money in economic life. Money is anything that is generally accepted in exchange for goods and services. The primary function of money is to simplify the processes of exchange. In the next chapter we shall describe the importance of money in our modern world in which almost everything is produced for sale and not for the producer's own use. Then, in Chapters 22 through 26, we shall show what governments can do to provide a reliable money and what happens when a people lose confidence in the goodness of their money.

*Providing the "rules of the game."* As we have already indicated, self-interest is a powerful force. It is doubtful whether any human society could get along without it. Yet it must be channeled and directed if it is not to be destructive. Competition is one of the channeling forces. But government must set the rules of the competitive game. First of all government must define permissible action in such a way that the game is played competitively. Maintaining competition is one of the most important (and most vexing) responsibilities of government. It is evident that the definition of permissible action must prevent persons from getting ahead by

fraud, robbery, murder, etc. In other words, it is the responsibility of government to maintain law and order. Further government must enforce contractual obligations. Free individuals cooperate with one another on the basis of written and unwritten contracts. If these contracts are not honored, the whole system breaks down. Fortunately the enforcement problem is not serious since the overwhelming majority of contracts express the mutual interest of the parties that make them.

For the moment these indications of the role of government suffice. When we come to the discussion of the State in an enterprise economy in Chapter 20 we shall have occasion to note that there are many other things which government must do if an enterprise economy is to be an effective method of economic organization.

### THE PROBLEMS OF FREE ENTERPRISE

Nothing created and operated by man is ever perfect. This is true of the enterprise type of economic organization—and of every other type of economic organization. Hence there are always problems. Some of the problems of the enterprise system are unique to that system; others are found in most or all economic systems.

One group of problems is related to maintaining the conditions necessary for the enterprise system to operate effectively. Two problems from this group were identified in the discussion of the role of government: maintaining competition and providing a sound money system. These two problems never seem to be solved in any permanent sense. They require continuous attention and constant vigilance on the part of the citizens and their elected representatives.

We shall stress the role of the citizen in problem solving because government action is often the source of the particular problem rather than the solution of the problem. This is not a criticism of the democratic form of government. Rather it is a recognition of the fact that short-run political expediency and good economics do not necessarily coincide. They can be brought into rough correspondence if the citizens understand the operating requirements of an enterprise system and really want their representatives to protect and promote these requirements.

The maintenance of this rough correspondence is made more difficult by the fact that it is always to the advantage of a particular economic group to escape from the disciplines of competition. At the same time it is to the advantage of each group that all other groups should remain subject to these disciplines. Workers seek to

escape competition in their own activities but usually insist that the business firms of the country be exposed to competition. In the same way businessmen (or farmers or professional men) seek to escape competition, but insist that workers shall compete for jobs. This struggle may force all groups to accept the disciplines of competition, or it may result in each group acquiring some degree of monopoly control of its own market.

This second result is described with delightful satire in a book by A. S. J. Baster entitled, *The Little Less*.<sup>2</sup> Baster describes how the economy of Great Britain was converted into a caricature of an enterprise system between the two World Wars. This came about by the simple process of allowing each economic group to try to get ahead by offering less for more, rather than more for less. Output restriction was permitted, even encouraged, in one activity after another. The result: all elements in the economy were reduced to a lower level of living. Whether we shall continue to use an enterprise system in the United States depends largely upon whether the interplay of so-called "pressure groups" produces a workably competitive economy or a restrictionist, monopolistic economy.

To understand the activities of pressure groups it is necessary to understand the problems of economic life as they are seen by the individuals who make up the groups. These problems are usually related to one or more of the following considerations: the absolute size of each man's income; the size of his income relative to that of others; the relative continuity of his income; the conditions under which the income is earned; and the prospects of improvement over time in both the amount of the income and the conditions of employment.<sup>3</sup>

These general problems are reflected in the specific problems which we shall discuss in later chapters: the business cycle; labor-management relations; distress in agriculture; the insecurities due to age, unemployment, industrial accidents, etc.; and international economic relations.

In analyzing each problem, the authors will begin by asking if the problem arises out of some inherent shortcomings of the enterprise system or out of some remediable failure in the operation of the system. If the problem can be reduced or eliminated by improving the operation of the system, the proper line of action is relatively

<sup>2</sup> A. S. J. Baster, *The Little Less*, Methuen, London: 1947.

<sup>3</sup> Apparently men resent personal inequalities much less in a society in which they can look forward to a steady improvement in their lot, and the lot of their children, than in one which offers no such hope.

easy to define, although it may be difficult to enact. If the problem would exist even if the system were operating just as it should, the solution will involve difficult decisions. In this event, it may well be that the best alternative is to accept the problem and learn to live with it. This will be true if the people decide that the cure—changing to another type of economic organization—is worse than the disease. No economic system can solve all problems, and the people must decide which system on balance is best suited to their purposes.

This statement will take on more meaning after we have examined the advantages and the disadvantages of other economic systems. At this point it is important only to warn the reader not to expect that the enterprise system can solve all the social and economic problems of life.

**A note on self-interest.** The discussion of this chapter has made it clear that the force which moves men to action under the enterprise system is self-interest. This motivation has been partly responsible for the widespread doubts concerning the ethical rightness of the enterprise system. No thoughtful person can defend a system that he believes to be ethically wrong. This idea of ethical rightness is so important that it is well to see how one man at least reconciled the motive of self-interest with his own strong concepts of right and wrong. The Adam Smith who wrote *The Wealth of Nations* was also the man who earlier wrote (1759) *The Theory of Moral Sentiments*. He was deeply concerned with questions of morality, of right and wrong. How did this man of strong moralistic bent reconcile his ethics and his economics? His reasoning ran somewhat as follows:

Man is a normal animal, animated by sympathy for his fellow as well as regard for himself and his immediate family. He wants the respect and esteem of his neighbors; he wants to serve the general welfare. But he has no intuitive way of knowing how he can best do this. Fortunately the prices which come into existence in a regime based on private property and private enterprise tell him where his services will prove most useful. If a thing is scarce relative to the wants of consumers it will command a high price; if abundant it will command a low price. The individual who shifts his resources from the making of things that are in relative abundance to the making of things that are relatively scarce serves his fellows, and the fact that he prospers by doing this in no wise detracts from the usefulness of his act. At the same time this same principle of self-interest permits an individual *not* to devote his resources to the making of something that is scarce, if he is convinced that he should do something else that would be still more useful. He is free to compose

poetry or paint pictures, or preach to the souls of men if he thinks that the world will be better for his doing so. But he must not ask the State to force those who do not like his poetry, who find no beauty in his pictures or who seek salvation through other doctrines, to support him. If he really wants to provide his fellows with something which *he* thinks they need, he must be prepared to pay for his conviction in material privations. There is nothing moral in providing the public with what it does not want if one also insists upon being rewarded as well as if one devoted oneself to providing them with what they do want. In the centrally directed mercantilist society of his time, Adam Smith argued, there is less opportunity for men to voluntarily serve the long-run spiritual interests of their fellows than there is in one based on freedom of choice. For in a centrally directed society the planning authority simply cannot permit individuals to do what they choose; hence it cannot permit them to do what they think is right.

Regardless of whether one accepts or rejects this concept of self-interest, it is important to realize that all thoughtful defenders of private enterprise accept the idea of self-interest as an essential feature of the system because of their conviction that it serves highly moral ends.

### Questions:

1. Define "the private enterprise system"; indicate the criteria the authors use for determining whether an actual economic system is predominantly private.
2. "The private enterprise system came into existence as a result of the publication of Adam Smith's *Wealth of Nations*." Discuss.
3. List the major problems that any economic system must solve and indicate the role of the following in the solving of these problems in a private enterprise system: (a) consumer sovereignty; (b) profits and losses; (c) prices; (d) competition; and (e) self-interest.
4. Explain by example the difference between the economist's conception of saving and that of the man on the street.
5. Go back to your "goals for a good economic system" and indicate which of them appear to be attainable under private enterprise and which unattainable. Add any further goals suggested by this chapter.
6. "Anyone with strong ethical convictions must reject a form of economic organization based on self-interest and competition. The good society must be founded on love of one's fellow man and cooperation." Indicate how a believer in the "rightness" of a competitive enterprise system might answer this statement.

# *Specialization*

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WE HAVE noted before that the main goal of economic activity is the satisfaction of human wants. Most of the goods and services that we use to satisfy our wants come to us through a complex chain of production. To illustrate, let us construct a history of the pair of shoes you are now wearing.

## THE DIVISION OF LABOR

The hide may have come from a steer fattened on the pampas of the Argentine and slaughtered in a plant located in Buenos Aires. The machinery and the equipment of the slaughterhouse may have been made in England and transported to the Argentine in a Greek tramp steamer built in Norway. Perhaps the hide was shipped to Boston in a British ship, then sold through wholesale channels to a plant in Nashville, Tennessee, and transported there in a freight car which moved over three railroad systems. In Nashville it was cut up and worked on by many men, using a number of complex machines. These machines had been produced with the use of still other machines, which in turn had been produced by other men using other materials, tools, and machines. Out of all this emerged a finished pair of shoes. The shoes moved from the factory through wholesale and retail channels into your hands against the payment of a ten dollar bill. When you turned over that bill to the retailer, a long cycle of production was completed. The final payment was made for all the work performed in many lands and over many years.

**Division of labor involves cooperation.** In a modern economy, the making of even a pair of shoes involves a near miracle of cooperation and coordination. It is quite impossible to say how many persons, some living, some long dead, were involved in one way

or another. The tasks which these people performed were many and varied. If we could identify every one of the tasks and watch the men and women at work, we would be struck by the fact that most of the tasks were quite simple. Also, we would find that the workers and employers were largely unaware of the complexity of their joint efforts. How then was this amazing feat of coordination accomplished? How was the cooperation of each person obtained? The answers to these questions lie in the details of what we have called "economic organization." Much of the rest of this book is devoted to showing how these questions are answered under a free enterprise type of economic organization. At this time it is important only to note that *all* forms of economic organization involve cooperation and coordination. The main differences between economies based on free enterprise and those based on detailed production planning relate to the methods of reaching decisions and bringing about the necessary cooperation.

*Division of labor defined.* The term, "the division of labor," describes a method of production in which a complex process is broken down into a number of small tasks. When one (or a related group) of these tasks tends to be performed in one place, we refer to this as territorial specialization or the *territorial division of labor*. During the 19th century the territorial division of labor was considerably expanded. Countries and regions within countries specialized. Paris became noted for women's fashions, Lancashire in England for its textiles, Holland for its cheeses and tulips, Denmark for its bacon and eggs, and Brazil for its coffee. Ceylon is now noted for its tea; Burma for its rubber plantations. In this country Detroit is associated with automobiles, Hollywood with motion pictures, the South with cotton and tobacco, etc.

Much of the world's territorial specialization rests on climatic conditions or upon the distribution of natural resources. However, an important part of economic activity is not tied to given locations by unalterable factors such as rainfall and coal deposits. It is this locationally freer part that gives rise to some of the most interesting and difficult issues in the field of social control. Why is Switzerland such a great watch-making country? If competition from Swiss-made watches is hurting the American watch-making industry, should the American firms be protected by tariffs on Swiss watches? Why did the American textile industry start in New England? Why is it migrating southward? If this shift causes unemployment and individual hardships in New England, should the Federal Government intervene to stop or at least slow down the movement?

In other words, should goods be permitted to move freely from one region of a country to another and from one country to another? It should be clear that the answer to this very important question must be sought in the advantages and disadvantages of territorial specialization.

In the remainder of this chapter we shall discuss (1) the conditions that promote the division of labor, (2) the economic advantages of specialization, and (3) some of the more important social consequences and complications of specialization.

### CONDITIONS FAVORING SPECIALIZATION

An elaborate division of labor depends upon the presence of a number of favorable conditions of which the following deserve attention: (1) the use of money; (2) the size of the market; (3) exact standards for weighing and measuring; (4) the protection of the claims of specialists; (5) surpluses to carry the load of waiting involved in modern production; and finally (6) a favorable social environment.

**Money and specialization.** Specialization goes back to the very beginnings of recorded history. Even as late as the Middle Ages we can find examples of the earlier, simpler forms of division of labor. There was the hunter, the farmer, the smith, the carpenter, the weaver, the fuller, the cartwright, and a host of other craft specialists. Old family names carry the record of this simple division of labor. These specialists worked for the most part with hand tools and were almost entirely dependent for power on their own muscles and upon the strength of domesticated animals. Markets were small and local, and the specialist could (and, to some extent, did) exchange his products directly with other specialists, without the need of a medium of exchange. We speak of such an economy as a barter economy. The process was necessarily cumbersome, time-consuming, and unsatisfactory. It was largely a matter of luck if one specialist found others who had what he wanted, in the quantities he wanted, and were prepared to take in exchange what he had to offer. Exchange was immensely promoted, therefore, whenever a people agreed upon some one commodity as a medium of exchange. Thus the social invention of money encouraged the division of labor, and every improvement in the quality and reliability of money made possible further specialization.

**The role of the market.** Adam Smith long ago pointed out that "the division of labor is limited by the extent of the market." The market is a four-dimensional concept, involving area, number of

buyers, their purchasing power, and time. If, for example, a shoemaker could sell only 20 pairs of shoes per month, and if he could make one pair of shoes a day, there would be no advantage in his breaking the job down into many small parts and employing a helper for each specialized task. If, however, he could sell 75 pairs of shoes per month, it might be profitable for him to hire helpers to perform the less difficult tasks while he devoted himself to those requiring special skills.

But what would make it possible for him to sell 75 rather than 20 pairs of shoes per month? One factor might be a breakdown of barriers to trade between localities. In the Middle Ages, it was exceedingly difficult for a shoemaker in one town to sell his shoes even in the neighboring town. Special tolls and other forms of discrimination confronted the "outsider" in every market. With the rise of nationalist-minded rulers, many of these barriers to trade *within* each country were reduced (at the same time, barriers to trade *between* countries were increased).

Another factor might be a lowering of the cost of transporting goods from one place to another. Improved roads and canals, better transport vehicles, better protection against robbers, improved ocean transport—any number of such changes—could *widen* the market for this man's shoes. A market is said to be widened when some change permits a producer to extend his sales over a wider geographical area.

Or the increased sales might have come through an increase in the population in his market area or through a general improvement in the economic well-being of the people in the area. Either of these changes would *deepen* the market for his shoes. A market is said to be deepened when buyers within a given area are able and willing to buy more than before even in the absence of a price reduction.

These same market factors operate today to determine the extent to which it is profitable to carry specialization. The American market itself is wide and deep enough to permit American producers in many lines to carry specialization further than the producers in any other country of the world. All of us have profited from this specialization through the lowered costs of the things we buy.

**The role of standards.** Another condition necessary to the full development of the division of labor is the establishment of exact standards of length, area, volume, weight, temperature, pressure, etc. Until quite recently rather primitive and inexact standards

sufficed. Each country had its own measures. In England, for example, the "foot" was the length of the king's foot.

As trade between people in different areas developed, and as tool making and science grew in importance, it became imperative that men should agree regarding the exact meaning of the weights and the measures involved in their transactions. Governments have played a large and constructive role in the establishment of standards. For example, all of our states define the "yard" as being 0.9144 as long as a platinum-iridium bar which was presented to our Bureau of Standards by the International Bureau of Weights and Measures. The American bar is identical in length with a similar bar located in France when that bar is supported in a definitely specified manner, at the temperature of melting ice, and at standard atmospheric pressure.

Despite the great advantages to be had from the general adoption of international standards, most countries keep customary standards and content themselves with expressing them in terms of the international standards. This diversity is inconvenient enough when the national units have different names; it is downright confusing when two areas use the same term but define it differently. The British quart is larger than the American quart; the Georgia bushel is not the same as the New York bushel. These differences serve no useful purpose. International trade would be facilitated and we would all be better off if national governments could agree upon a single set of physical standards.

**The protection of claims.** As the products of specialists move from hand to hand and from place to place and are combined with the products of other specialists, claims must be kept distinct, identifiable, and enforceable at every instant of time. Contracts must be made and must be legally binding. Without the legal protection of claims, the division of labor could never have advanced much beyond the narrow limits set by the shortcomings of barter. Our modern economy with its minute division of labor is essentially a credit economy. It rests on a vast network of reciprocal obligations and it can persist only as long as men take it for granted that these obligations will be observed. Thus the protection of claims through dependable commercial law is an essential prerequisite to the development and to the maintenance of the division of labor.

**The importance of surpluses.** The division of labor increases output per worker and hence makes it easier for men to develop surpluses over and above their immediate and customary needs. These surpluses in turn favor the further elaboration of the division of

labor. Robinson Crusoe could stop to fashion a bow and arrows because he did not need the last ounce of his energy to gather food. Once a surplus has been created the further development of the division of labor becomes progressively easier. Men can be supported from this surplus while they devote their time, energy, and ingenuity to devising new and better ways of doing things. Others can be fed, clothed, and housed while they add to our supply of capital goods and durable consumer goods. Still others can cater to our desire for education. Our complex, enormously productive and highly specialized economy depends upon the surpluses accumulated by past generations. These surpluses are represented by our vast stocks of tools and machines, our factories, office buildings, our roads and railroads, our schoolhouses and homes and, last but not least, "the whole mass of commonplace and of specialized knowledge which enables people to work in disciplined harmony for each other and to make use of each other's products."<sup>1</sup> A surprisingly large part of our annual effort is required merely to maintain this vast stock of material and immaterial wealth. If we neglect this maintenance, we can increase for a short time the supply of consumer goods and thereby increase our material well-being. A society, like an individual, can consume its capital. However, this surplus is, in a very real sense, a trust to be handed on to our children. It can and it always will be drawn upon to tide a nation over a great emergency; it is dangerous to draw upon it in ordinary times simply that we may live beyond our means.

**The role of environment.** Division of labor can exist under almost any type of social environment. However, for specialization to develop to its most advanced forms (see the discussion of mass production below) and for it to be supplemented by technological progress, special environmental factors seem to be required. One of the most important of these factors is a willingness of men to accept and adjust to change. In Western Europe during the feudal era, custom and tradition had a strong hold on the minds of men. The same is true today in many of the so-called "underdeveloped" countries. In such an environment, both specialization and technology are likely to be frozen at very simple levels.

Another environmental factor of great importance is the philosophy of life which motivates the men and women in a given society. If the goal of life in this world is largely to prepare for life in the next world, the best minds and talents will not be devoted to im-

<sup>1</sup> Wesley C. Mitchell, *Business Cycles, The Problem and Its Setting*, National Bureau of Economic Research, Inc., New York: 1927, p. 93.

proving the techniques of production or the level of specialization. It is not for the economist to say that such "other-worldliness" is a better or worse approach to life than the "this-worldliness" which seems to characterize modern Western societies. He is, however, in a position to say that "other-worldliness" is not conducive to economic progress. The economist can say also that these philosophical differences must be taken into account when plans are made to improve the well-being of the peoples in the underdeveloped countries. We shall come back to this point in our discussion of American foreign economic policy.

### THE ADVANTAGES OF SPECIALIZATION

Our discussion so far has taken for granted the economic gains of specialization. Now we must ask just how and why specialization leads to lower costs of production. There are a number of reasons for the technical superiority of specialized over nonspecialized operations.

**More effective use of human resources.** In the first place specialization promotes a more effective use of men differing widely in natural aptitudes than does nonspecialization. The making of a pair of shoes, for example, involves operations of varying degrees of complexity. There may be a dozen men capable of performing the simplest operations for every one able to perform the most complicated task. It would obviously be advantageous, therefore, to relieve the very skilled worker from the routine and easily mastered phases of the job and put him exclusively to the task which he alone is capable of doing easily and well. The result is more and better shoes than would otherwise be possible. If, as is apparently the case, skills and aptitudes are very unevenly distributed in a population, much is to be gained by breaking down a complicated job into simple repetitive tasks and then assigning to each man the task that appears to be most suited to his abilities and his temperament.

**Increased efficiency.** A subsidiary advantage follows from this first advantage. Not only is it possible to assign an individual to a task suited to his abilities, but it is further inevitable that the constant repetition of the task will increase, up to a certain point at least, the ease, precision, and speed with which it is performed. Practice makes perfect. Workers with various skills become more efficient.

**Saving time.** A third advantage of the division of labor is the saving of time. The master shoemaker who has to assemble his

own tools and materials, to shift from one tool to another as the shoe takes shape, and to stop to serve his customers obviously wastes a lot of time in the absolute sense, as well as in the relative sense of devoting a large part of his time to doing things which less skilled workers could do equally well. As the scale of production increases, the production process can be planned. A boy can be hired to keep the shoemaker supplied with the needed materials and to clear away the waste and collect the finished shoes. A little thought and a visit to a modern shop will make it clear how large a role this saving of time plays in modern production.

**Machines and power.** A fourth advantage of the division of labor is that it paves the way for the replacement of the hand tool and the muscular power of the worker and his domesticated animals by precision machines and mechanical power.

As the division of labor became more complex, men of ingenious mind and acute powers of observation noticed that certain productive processes involved identical motions repeated over and over again. They also noticed that the excellence of the product was frequently reduced by the inability of the worker to repeat these motions with complete fidelity. Why not attach an iron arm to a wheel and the tool to the iron arm and let the man turn the wheel? In this way he could secure that identity of motion that he was unable to maintain when he himself grasped the tool and attempted the impossible task of forcing his arm to repeat the motion.

Once this idea was grasped, the development of the division of labor went ahead rapidly. Heretofore, the breakdown of jobs appears to have been on the basis of differences in the skills required. Now it was advantageous to make a further breakdown with a view to separating out a process involving the repetition of some simple movement and to developing a machine to take it over. Invention, itself, now became a recognized form of specialization.

Adam Smith noted this new development in his well-known discussion of the advantages of the division of labor.

All the improvements in machinery, however, have by no means been the inventions of those who had occasion to use the machines. Many of the improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade; and some by that of those who are called philosophers or men of speculation, whose trade it is not to do anything, but to observe everything; and who, upon that account, are often capable of combining together the powers of the most distant and dissimilar objects. In the progress of society, philosophy or speculation becomes, like every other employment,

the principal or sole trade and occupation of a particular class of citizens. Like every other employment, too, it is subdivided into a great number of different branches, each of which affords occupation to a peculiar tribe or class of philosophers; and this subdivision of employment in philosophy, as well as in every other business, improves dexterity and saves time. Each individual becomes more expert in his own peculiar branch, more work is done upon the whole, and the quantity of science is considerably increased by it.<sup>2</sup>

**Mass production.** A further advantage of specialization is that it makes possible the economies of what has come to be known as mass production. We have mass production when a producer turns out very large numbers of items identical in every respect. This is technically possible only through the use of power-driven machines and specially designed tools. It is economically possible only when there exists a market broad enough and deep enough to absorb a very large output. In many lines of production the American market is the only one today broad enough and deep enough to warrant the use of the best equipment that engineers can design with their present knowledge. That is the principal reason why mass production has been carried further here than anywhere else and why the American level of living is the highest in the world. In parts of the world where broad markets do not exist, the economies of mass production cannot be had even if the people were to be given the funds and the know-how to acquire and operate modern specialized equipment.

### SOME SOCIAL CONSEQUENCES OF SPECIALIZATION

It would require many books and the wisdom of many men to identify and assay all the consequences that have flowed from the specialization of the last 200 years. The consequences cited in the preceding section are regarded by most people as desirable, as evidences of progress. More people enjoy more goods and services and a far wider array of goods and services than ever before. In the countries where specialization has gone the farthest the work day is relatively short, and much of the really exhausting physical labor has been taken over by power-driven machinery. In these countries famine is almost unknown, and life expectancy is two to three times as high as it was a couple of centuries ago or as it is

<sup>2</sup> Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* with an Introductory Essay and Notes by J. Shield Nicholson, T. Nelson and Sons, London: 1895, p. 5.

in countries that have not yet developed the complex division of labor.

All these things are surely good. Yet there have been losses as well. In this section we shall examine a number of consequences in which gains and losses are blended. We shall find that specialization is not an unmixed blessing, that it brings with it various problems and complications which must be handled properly if the net result of specialization is to be beneficial to mankind.

**Growth of population.** The first and most obvious result of the shift from the simple division of labor to the complex specialization characteristic of the modern world has been the growth in population. Our knowledge of the population of Western Europe prior to 1800 is scant and uncertain. There was probably a decline in the dark centuries between the fall of the Roman Empire and the emergence of the feudal system and a slow but pretty steady growth from around 1650 on until the powerful new technologies of the Industrial Revolution made themselves felt. Thereafter the growth was phenomenal. By 1929 the peoples of Europe and their descendants overseas had risen from about 100 to about 642 millions. During the same period the population in the area that is now the United States increased from about 52,000 to about 130 million; non-European stocks increased by about threefold. The population of the world today is in the neighborhood of 2,350 millions. Population experts predict that it may pass the three billion mark in the next fifty years.<sup>3</sup> Unless the new methods of production can bring a fuller and more satisfying life to these increasing numbers there is no clear reason why we should regard the new methods as a boon to mankind.

**Growing interdependence.** Another far-reaching consequence of the complex division of labor has been the growth of interdependence of man on man and region upon region. Any division of labor, of course, makes man dependent, to some extent, upon his neighbor. Only a Robinson Crusoe can be completely independent. But until very recently this dependency was among persons who lived, as it were, face to face with one another. Throughout the Middle Ages the overwhelming majority of the people lived in small rural settlements grouped around the medieval manor. Virtually their every want was satisfied by their own production or by the production of their immediate neighbors. Only the lord of the manor, his

<sup>3</sup> The population of the world was probably less than 900 million in 1750. This figure and that for today are taken from M. K. Bennett, "Population and Food Supply: The Current Scare," *The Scientific Monthly*, January, 1949, p. 18.

family, a few of his more important retainers, the higher ranks of the clergy, and the rich burghers in the larger towns consumed products made in far places. The simple folk in the towns and on the manor lived out their lives within a radius of a few miles of their birthplaces and were fed, clothed, and housed with materials produced within the same narrow confines. Feudal society as a whole was dependent, but the dependency was primarily upon impersonal and, as far as they were concerned, uncontrollable forces of nature. Given a cycle of favorable growing weather, the people and their flocks grew fat and multiplied. Given a cycle of bad weather, the people and their flocks grew thin. Hunger and disease cut numbers down to what the local farming lands could support. And if these two grim agencies of population control failed to re-establish the balance between production and reproduction, wars between rival manors could be counted upon to complete the task. Subject to these important limitations the great majority of the people of medieval Europe lived out their lives in communities possessing a high degree of self-sufficiency and independence.

The new specialization changed all this. Today, in countries with an advanced capitalistic structure the majority of the people live in towns and cities of considerable size, perform simple, repetitive tasks, and are dependent for their daily bread upon the uninterrupted interchange of goods and services with peoples scattered across the world. There is not a city in the United States in which the people could be fed adequately if the complex division of labor broke down. In the same way every highly industrialized country faces disaster if the international exchange of goods and services is interrupted (as Great Britain has discovered in two world wars). It is not surprising then that modern man looks at this complex division of labor and territorial specialization with mixed feelings. Some of the most important problems of today arise out of men's efforts to escape from this interdependence upon which their very existences have come to depend.

**Belief in progress.** The growth in population and the slow but steady rise in the material well-being of the broad masses in the countries of the West created a popular belief in the inevitability of progress. For the first time in recorded history man appeared to have at his disposal a technique of production so powerful that it could wipe poverty from the face of the earth and provide, as a matter of right, a decent living to all.

The new and optimistic attitude toward life engendered by this faith in progress has had profound social, psychological, and polit-

ical effects. In the United States it has been responsible for much of our social legislation and for our popular confidence in public education. The improvement factor, providing for an automatic annual increase in wages, which was first introduced into a contract entered into by the General Motors Corporation with the United Automobile Workers, CIO, reflects this faith in the inevitability of progress.

On balance the faith appears to have promoted tolerance and to have released energies wherever people were able and willing to welcome and adjust to change; as a consequence, progress has justified and strengthened this faith in these areas. Where this type of environment does not exist, or where it has been seriously weakened by popular demands for personal security, the belief in progress leads to disappointed hopes and to revolutionary movements which end in tyranny rather than progress.

**Joy in work.** A substantial fraction of each man's life is devoted not to spending but to earning income. His happiness, then, depends not just on what he gets but also on what he does. There are many who argue that specialization has taken most of the joy out of work. These people point to the greater monotony of highly repetitive tasks, to the nervous fatigue that may be involved in fitting one's pace to that of the machine, to the sense of futility that may be involved in doing one minute and apparently insignificant task hour after hour and day after day. John Ruskin was sure that the life of the medieval craftsman was more satisfying than that of the mechanic of his day.<sup>4</sup> Many poets, artists, and professional people are prone to agree with Ruskin. But all that they are saying is that they do not think that they would be happy tending a machine. The steady decline of the hand crafts appears to prove that most men prefer the incomes and satisfactions of the new work methods to the incomes and satisfactions of the old ones. Also modern managers seem to be increasingly aware of the need of each man to derive satisfaction from his job. The techniques of modern personnel management represent, in part, an attack on this problem.

**The business cycle.** As far back as the record goes there have been good and bad times, but there is considerable evidence that these changes only assume the roughly rhythmic character that has given rise to the expression "the business cycle" in societies in which

<sup>4</sup> See his *The Seven Lamps of Architecture* (1849); *Unto This Last* (1862); *Munera Pulveris* (1862); *The Crown of Wild Olive* (1868); and *Fors Clavigera* (1871-78); and above all, *Time and Tide* (1867). A sympathetic appreciation of Ruskin, the social reformer, will be found in J. A. Hobson's *John Ruskin, Social Reformer*, D. Estes & Co., Boston: 1895.

most of the "economic activities have taken on the form of making and spending money."<sup>5</sup> This is simply a way of saying that the phenomenon of the business cycle is presumably connected with the way in which a complex money economy operates. If this is true, the great gains in productivity which have resulted from the use of money and the elaborate division of labor which money makes possible may be offset, in part, by the periodic losses which result from mass unemployment. We shall be concerned with the business cycle in later chapters and with the possibility of controlling it without destroying the productivity of a money economy and without assigning to the State powers of direction so great as to threaten our personal and political liberties.

Specialization, as it has developed over the last 200 years, has created societies quite different from those of any preceding age. Probably the majority of the adults of the generation that ended in 1914, in the United States at least, believed that mankind stood on the threshold of an era of abundance, freedom, and peace. Two world wars and the collapse of popular governments in many parts of the world have shaken this comfortable optimism. We know that what has been accomplished in the past is nothing to what lies within our grasp, if we use wisely the enormous new forces that are at our disposal as we enter the atomic age. But we also know that progress is not inevitable.

### Questions:

1. Discuss critically the charge that the private enterprise system is ethically wrong because it is based on competition instead of co-operation.
2. Identify the conditions favoring the development of the division of labor, and, in the light of your general knowledge, indicate with supporting reasons which of the following measures tend to promote and which to restrict the division of labor: (a) Tariffs at national frontiers; (b) advertising; (c) the maintenance of law and order and the enforcement of contracts; (d) agricultural subsidies; (e) research in the pure sciences; (f) growth of population; (g) a highly progressive income tax; (h) "otherworldliness"; (i) rigid folkways.
3. Identify the principal advantages of the division of labor and list the reasons for its relatively high development in the United States.

<sup>5</sup> Mitchell, *op. cit.*, p. 63.

4. Define specialization; identify some of the social consequences of specialization; and indicate with supporting reasons those which you regard as desirable and those which you regard as undesirable.
5. Give examples of (a) developments which tend to widen and (b) developments which tend to deepen the market, and explain the significance of Adam Smith's statement that "the division of labor is limited by the extent of the market."

## *Forms of Business Organization*

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IN A private enterprise economy the firm is the agency that executes the orders of the consumers. It is a voluntary association of resource owners organized for the purpose of making profits by producing for sale economic goods and services. The firm sells to individuals, to other firms, and to the State and its subdivisions.

In addition to business firms there are many voluntary, nonprofit-making associations catering to human needs. These are churches, lodges, private schools, and philanthropic corporations.

The State too is an association that uses resources and provides goods and services. Membership is compulsory, and the managers do not have to keep the organization "out of the red," as do the managers of private business firms. Hence there is no easy method of determining the scope of its activities. One of the tasks of economics and political science is to determine the appropriate roles of the State and of private profit-making firms in societies that desire to maintain the institutions of private property and private enterprise.

Our concern in this chapter is with private, profit-seeking firms. Such firms vary from the one-man shop and the small family farm to the huge enterprise with dozens of separate plants and tens to hundreds of thousands of paid workers. The term *plant* refers to the basic production unit. With a few exceptions, such as railroads, a plant is located in a single community. A *firm*, on the other hand, may consist of one plant or many. Altogether there are over three million nonagricultural firms in the United States and close to six million agricultural firms, i.e., farms, most of which are very small. Smallness is also characteristic of the firms outside of agriculture.

91.3 percent of the 3,316,700 nonagricultural firms doing business in the United States in 1939 had less than 8 employees, while less than one percent hired more than 99. Only three-tenths of one percent had more than 249 employees on their payrolls. But these large firms, while few in number, are responsible for the bulk of nonfarm employment. In round numbers 16 million, or 57 percent, of the gainfully employed not engaged in agriculture were working for firms employing 100 or more workers. The 4,900 largest firms, those with 500 or more workers, represented one-fifth of one percent of all nonagricultural firms and gave employment to 40 percent of the nonagricultural labor force. The 90 odd percent of small firms employed less than one-quarter of the working population (23.7%). More than a million and one-half had no hired workers. These were the self-employed and the members of their families. The proportions will not be very different today.<sup>1</sup>

It is customary to group firms into a few major classifications according to some common characteristic, such as materials handled or products made. United States Government statistics recognize seven large groupings: the extractive industries; contract construction; manufacturing; transportation, communication, and public utilities; wholesale trade; service industries; finance, insurance, and real estate—with many subgroups under each. The term “industry” is used interchangeably to cover one of the major classifications or one of the narrower subgroups. The term lacks precision and hence lends itself to misuse. It is easy, for example, to prove that an industry is monopolistic by simply narrowing the definition of the industry to cover a single, highly specialized product.

### THE LEGAL CONCEPT OF THE FIRM

Any form of voluntary association requires either tacit or formal public approval. In the United States business firms are organized under four legal forms: the individual proprietorship; the partnership; the corporation; and the cooperative.

**The individual proprietorship.** In the individual proprietorship a single individual is legally responsible for the conduct of the business, is entitled to all the profits, and is obliged to meet all the losses to the full extent of his ability. The business may be large or small and it may be conducted in a single plant or in many plants; the proprietor may supply all the labor and capital himself as well as the management, as in the case of a one-man repair shop; or he may hire a large number of workers, including a salaried manager, and

<sup>1</sup> From A. D. H. Kaplan's *Small Business: Its Place and Problems*, McGraw-Hill, New York: 1948, p. 25.

borrow a substantial part of his operating capital. The typical and important feature of this form of organization is that all those who cooperate with the proprietor do so on terms agreed upon in advance. The workers receive *explicit* wages; the suppliers of capital receive *explicit* interest. If the proprietor does not own the land used in his operations, he pays *explicit* rent. In brief, the proprietor pays all the expenses of production and gains legal title to all the moneys derived from the sale of the goods and services produced by the firm. If receipts exceed *explicit* expenses, the excess in the eyes of the law belongs to him. Often this excess may be less than he could earn by working for someone else. A proprietor gets no wages; he earns no interest on his own capital invested in the firm. If expenses exceed receipts, he must nonetheless meet all his explicit expenses on pain of bankruptcy. His home, the savings which he had not intended to commit to the business, everything is involved.

The advantages of the individual proprietorship are fairly obvious: unity of command, the ability to make quick decisions, the complete dedication of the owner to the success of the venture. The great disadvantage of this form of business organization is that it does not lend itself to the bringing together of the capital needed to finance really large enterprises. The resources and the credit of even a very wealthy man would not be adequate for the requirements of even a medium-sized enterprise in the United States today. Also the unlimited liability that the individual proprietor must assume tends to deter wealthy men from engaging in an enterprise involving unlimited liability. To do so would jeopardize all of their resources and not merely those directly committed to the business.

Numerically, individual proprietorships outnumber the other three categories, but in terms of work done they play a less important role in the American economy. The family farm, the tiny grocery store, the garage, the filling station, and the one-man lawyer's or doctor's office are examples of the single proprietorship.

**The partnership.** The partnership is nothing more than an enlargement of the single proprietorship. Each partner may commit the firm and in turn is legally liable for the acts of the other partners, as well as for those of subordinates. This unlimited liability gives the partnership excellent credit standing, but imposes a degree of risk that has made this form of organization, like the individual proprietorship, unsuitable to most enterprises requiring large amounts of capital. Another disadvantage of the partnership grows out of the necessity of dissolving the firm and reorganizing it every time a change occurs in the membership or in the relative

investments of the several partners. This right of withdrawal places a minority partner in a strong bargaining position in the case of any proposal to which he strongly objects. It thus complicates prompt decision making. The partnership form of organization is most practical when the number of partners involved is small and the relationship between the partners intimate.

**The corporation.** The corporate form of organization developed slowly. In the 16th and 17th centuries a group of individuals would buy "shares" in a single adventure—a trading expedition to India or the Hudson Bay Region, for example. They participated in the profits or losses of the expedition according to the relative value of their shares. The Company of Adventurers disbanded after the completion of each project. The problems of continuity and authority had not been solved. The "regulated" companies which came next partially met these needs. British "regulated" companies were given royal charters and monopoly privileges in parts of the world under British control. Such were the British East India Company, and the Virginia, the London and the Plymouth Companies that established and administered the first settlements in what is now the United States. Each member of a "regulated" company was permitted to provide his own capital, look out for it and withdraw it at his pleasure. Effective centralization of control had not been achieved, and the problem of continuity had been only partially solved.

An important forward step occurred in 1662 when the British East India Company was converted into a "joint stock" company. Under the new arrangement the assets of the company were represented by transferable shares which could be bought and sold without affecting the amount of capital at the disposal of the management. Those who provided the equity capital in this fashion exercised their control through their right to choose the management. Each shareholder cast as many votes as he owned shares. The problems of continuity and authority had been solved.

This continued to be the situation for the next 200 years. Then, around 1850, the last step was taken with the introduction of the principle of limited liability. Shareholders were relieved of legal responsibility for all losses over and above what they had put in when they bought the shares. In the United States owners of bank stock are usually liable up to twice the par value of their shares.

*Main features of the corporation.* The corporation is thus a partnership with features added which (a) enable individuals to enter or withdraw from the firm without interrupting its legal existence—*Continuity*; (b) tighten lines of command so as to secure unity of

decision and of action in what would otherwise be an unwieldy organization—*Authority*; and (c) limit the losses of owners to their equity investments in the organization—*Limited Liability*.

Equity investment or *equity capital* refers to resources that are supplied by the owners of the enterprise. It is, *par excellence*, risk capital put into the business with the expectation of getting a substantial return but with the realization that part or all may be lost, and that in any event the affairs of the business may make it impossible or inexpedient for the management to make any return in a particular year. The reward to equity capital does not form part of the *explicit* expenses of the firm.

*Nonequity capital* refers to resources loaned to the firm for a consideration stated in advance. This consideration, interest, is an explicit expense which must be met punctually regardless of whether the firm is or is not making a profit.

A corporation comes into existence by an act of government. It receives a charter from the state. Originally these charters were granted by special acts, but the danger of corruption and the popular favor which corporations enjoyed during most of the 19th century led to the passage of general laws governing the granting of charters. Although our Federal Government has the power to grant charters and occasionally does so, as in the case of our national banks, most private American corporations hold theirs from the individual states. With some exceptions, a charter granted by one state entitles a corporation to do business in all the other states.

*Corporation and partnership compared.* In law the partnership and the corporation are very different things. The real entities in a partnership are the partners. It is they, and not the firm, who carry on the business, who sue or are sued for breach of contract, and who pay income taxes on the partnership earnings. Under federal and state income tax laws the profits and the losses of partnerships are treated as additions to or deductions from the personal incomes of the partners. The partners pay personal income taxes at the rates determined by their total taxable incomes whether or not the profits are actually withdrawn from the business.

The corporation, on the other hand, is a "legal" person and as such is entitled to many of the rights and immunities of "natural" persons. It may not be deprived of its property except by due process of law. It is a person in the sense that one state may not discriminate against a corporation created by a sister state. The corporation conducts business through its officers; it may sue and be sued; it makes profits and experiences losses. A minority stock-

holder, unlike a minority partner, cannot block an action, provided the action has the approval of those holding a majority of the stock, by threatening to withdraw from the corporation. Nor can he force the corporation to return his money. All he can do is offer his shares for sale in the open market. The proceeds may or may not reimburse him for his original investment.

Under federal and state laws the profits of the corporation are taxable as such. They form no part of the income of the stockholders until they are actually distributed, and then they are taxed again. Since individuals and only individuals actually pay taxes, the result is double taxation of that part of a person's income derived from making risk-capital available to firms organized as corporations. In the partnership, on the other hand, the income is taxed to the partners in proportion to their interest, whether it is distributed or not.

**The cooperative.** Cooperatives are private firms organized for the primary purpose of serving their own members and not the general public. They may either buy or sell for their members.

*The Rochdale Pioneers.* The operating rules that cooperatives generally follow are very much the same as those worked out by the small group of textile workers in Rochdale, England, in 1844, when they arranged to buy a few staples for themselves. The Rochdale Society of Equitable Pioneers, as they called themselves, agreed: (1) that goods should be sold at prevailing prices; (2) that savings (earnings) should be distributed according to purchases; (3) that interest on capital should be restricted to a fixed rate; (4) that membership should be open to all; (5) that each member should have one vote and no more; (6) that full information—based on proper audits and accounts—should be presented to the members; (7) and that all business should be conducted on a cash basis. The vast cooperative movement is generally regarded as the outgrowth of the efforts of this little group of British workers to eliminate the middleman and his profits and bring the consumer into direct contact with the producer.

*Comparison with other forms of business organization.* The cooperative resembles the corporation in a number of respects: (a) the suppliers of the equity capital enjoy limited liability; (b) they appoint the directors and the officers of the firm, who in general (c) have the same powers as do the officers and directors of corporations; and finally (d) individuals may withdraw their equity capital without endangering the continuity of the firm.

The differences, nonetheless, are striking:

(a) The suppliers of equity capital get only a limited dividend.  
(b) Each stockholder has only one vote regardless of his investment. This is in marked contrast to the practice in the corporation. (It conforms rather with the practice in modern mass democracies in which each citizen has only one vote regardless of his wealth and of how much he must contribute to the expenses of the State. In this sense the cooperative is a more democratic form of business organization than the corporation.)

(c) The real profits of the cooperative are paid out to the co-operators not in proportion to their equity interests in the firm but in proportion to the business they do with it, either as buyers or sellers. They are patronage dividends rather than risk-capital dividends. They may be paid to anyone doing business with the cooperative or reserved exclusively for those customers who are also stockholders. In general, the bulk of the business of cooperatives is done with their members, a fact which automatically limits the scope of this form of business organization.

(d) The most striking difference, at least in the early days of cooperatives, was in the spirit and purpose. The first cooperatives were started by working class people (England) or by workers or peasants (Continental Europe). They were a form of self-help. The appeal was to group solidarity and to the spirit of service. In part they were an expression of protest against profits and the profit motive. As they have grown larger, the sentiment of solidarity has undoubtedly weakened, but the tradition of service is still strong and reflects itself in the relatively moderate salaries paid to top executives.

The future of the cooperative movement should depend on how well cooperatives serve as agents for carrying out the orders of consumers. If cooperatives receive no special favors, there can be no valid objection by owners of profit-seeking businesses to the field they manage to carve out for themselves. Many believe, however, that the recent and rather rapid increase in the number of cooperatives and in the volume of business done by cooperatives in the United States is due not so much to their efficiency as to the tax advantages they receive from the Federal Government. Cooperatives pay no tax on moneys accumulated for expansion, whereas the other forms of business organization pay a relatively heavy tax on comparable accumulations. The alleged justification for this differential treatment of the cooperative is that the money really belongs to the patrons. If an attempt were made to tax these sur-

pluses, so runs the argument, the cooperatives would avoid the tax by lowering their selling prices, if their patrons are buyers, or by raising their buying prices, if their patrons are sellers. In brief, co-operators deny that the earnings of cooperatives are profits.

There could be no objection in principle to the tax treatment accorded cooperatives, if the other forms of business organization received similar treatment. But the corporation, it will be recalled, has to pay a heavy tax on any profits held back for expansion purposes, and, in addition, the stockholders have to pay a personal tax on the distributed earnings (dividends) without any allowance for the fact that the income from which the dividends are paid has already been heavily taxed. Partnerships and individual proprietorships are not subject to this type of double taxation, but the earnings are subject to the personal income tax, regardless of whether or not they are used for expansion.

The immunity of cooperatives from taxation on their net earnings thus gives them a competitive advantage over corporations, partnerships, and individual proprietorships when it comes to raising new capital for expansion purposes. It is true that the cooperatives can avoid the tax by altering their buying or selling prices, but if they do they then have to induce the co-operators to put up more money to finance their expansion programs. It is always much easier to get people to leave unpaid money claims in a firm than it is to get them to put them back in once they have been paid out.

### THE SOCIAL SIGNIFICANCE OF THE CORPORATION

The rapid growth of the corporate form of business organization clearly proves that it is peculiarly appropriate to the requirements of the complex division of labor. Presumably consumers are better off because of the perfecting of this method of organizing an enterprise. Two further favorable consequences deserve consideration.

**The field for private enterprise widened.** The privileges of incorporation have greatly extended the field within which private enterprise can operate effectively. Stated negatively, it has reduced man's dependence upon the state as a provider of goods and services. Many goods and services can be supplied efficiently only by large firms, operating without a break over long periods of time. An example is rail transportation. If private firms cannot accumulate the funds or provide the continuity needed for such operations, then the operations must be undertaken by government.

The corporate form of organization has provided the continuity lacking in both the partnership and individual proprietorship. At

the same time, it has provided a convenient way for literally thousands of people to pool their resources to finance the operations of a single firm. Even more important to the raising of capital, the device of limited liability has reduced the risk to each person who shares in the venture. The person of some means does not wish to place his entire fortune in jeopardy each time he participates in a venture.<sup>2</sup> Yet this is what he must do if the venture is organized under the individual proprietorship or partnership form. Through its limited liability feature, the corporate form of organization has made it possible for private firms to obtain the financing needed for large-scale operations, and thus has widened the sphere for private enterprise.

**Capital formation promoted.** In a private enterprise society, rising levels of living depend upon voluntary saving, investing, and capital formation and upon improvements in technology. All these actions involve risks. The privilege of incorporation has reduced the repressive effects of risk by providing a wide variety of investment opportunities capable of appealing to individuals of very different temperaments, ranging from extreme caution to recklessness. The individual can so blend his investments as to secure the degree of risk on his total wealth that fits his particular temperament. There can be no doubt about the fact that the corporation has greatly stimulated the volume of saving and hence increased the annual rate of capital formation.

An understanding of the relationship of the corporation to the rate of capital formation requires some discussion of the two principal ways in which corporations obtain outside funds for expansion purposes: borrowing through the sale of bonds and notes; and obtaining equity investment through the issue of preferred and common stock.

*Bonds and notes.* Those supplying funds through the purchase of bonds and notes have a claim to stipulated payments (interest) at stipulated times (annually, semi-annually, or shorter intervals) regardless of whether the company is or is not making money. Failure to pay the interest or the principal when due automatically throws the company into technical bankruptcy. The bond and note holders may or may not insist upon the liquidation of the company. If they do, their claims on the physical and other assets of the enter-

<sup>2</sup> The State in Elizabethan England solved this problem by granting trading companies *monopoly rights* to particular trade areas. This reduces the risk, but in a way that would not be consistent with the operating requirements of an enterprise system. The device of limited liability would appear to be a more satisfactory way of reducing risk.

prise stand ahead of those who supplied the equity or ownership capital.

*Preferred and common stock.* A common characteristic of preferred and common stock is that the payment of dividends is discretionary. They may be "passed," i.e., omitted, without throwing the company into technical bankruptcy. Preferred stock differs from common stock, however, in a number of important respects. First of all, the dividend on preferred stock is fixed in advance, whereas there is no stipulated dividend to which the owner of common stock is entitled. If the preferred stock is cumulative, all "passed" dividends must be paid before any dividends may be paid on common stock. It follows that noncumulative preferred stock is frequently much more risky than common stock. Another difference is that preferred shares are usually nonvoting. The real ownership of the corporation is in the hands of the holders of the common stock. They are entitled to whatever remains, after all other claims have been settled in full. The income from common stock is thus *residual*. If nothing remains, the holders get nothing. If a company is liquidated and its assets sold, again the holders of the common stock receive only what is left after *all* other claims have been satisfied *in full*.

Our purpose in making this brief excursion into the field of corporate finance is to show that the device of limited liability has greatly widened the range of outlets for the savings of those who are not prepared to go into business for themselves and has thus contributed to the exceptionally rapid growth of the American economy. It would be an exaggeration to say that the corporation produces savers where otherwise there would be no savers, but it is probably true that the corporation greatly stimulates private saving and investment where the willingness to save already exists.

The device of limited liability is thus a social invention of great significance, comparable in its importance, probably, to any single invention in the field of natural science. And like discoveries in the field of the natural sciences, this one is entirely amoral. It can be put to good or to bad purposes.

Critics of the corporation allege that this form of business organization facilitates certain types of unethical business behavior, makes it possible for businesses to grow too big, and promotes a concentration of power in private hands that threatens the vitality of our democratic institutions.

**Unethical business practices.** The following practices are illustrative of the "unethical business practices" charge: excessive directors'

fees; excessive salaries and bonuses; stock market dealings by directors.

*Excessive directors' fees.* Some companies pay their directors as much as \$100 for each meeting attended. Directors could thus make around \$5,000 in fees if meetings were held weekly. For many of them this would represent substantially more than the dividends from their holdings in the company. If the meetings were held in a convenient place and were brief, the majority of the directors might be favorably disposed to unnecessarily frequent meetings. In a small company this drain on its revenues could reduce considerably the rate of return on the common stock. What the "inside" group of stockholders lost in dividends would be profitably offset by their directors' fees. The common stockholders who were not directors would be the victims of this sharp, yet entirely legal, practice. It would be very difficult for them to prove before a court of law that the Board of Directors was meeting too frequently.

*Excessive salaries and bonuses.* The payment of unnecessarily high salaries and bonuses to the top management is said to be another way in which the legitimate interests of the rank and file of the common stockholders can be hurt. Again the effect is likely to be more serious in small- and intermediate-sized companies than in very large ones, and it is in the latter that the very large awards usually occur. The effect of overly generous salaries and bonuses on the other claimants to the company's earnings is insignificant in the case of giant corporations. In 1948 General Electric, for example, had over 180,000 wage and salaried employees, more than 250,000 common stock holders, and realized net sales of close to \$1,000,000,000. Suppose that it could be proved that in a corporation of that size ten men on the Board of Directors and five officers, who were also members of the Board of Directors, were getting \$1,000,000 more than was necessary to secure their services. This is a lot of money when divided among 15 men. Yet the effect on the customers, stockholders, and the other employees is very slight. Prices could be cut by only one-tenth of one percent if the money were used exclusively for that purpose. Had it gone to the wage and lower-salaried personnel, (say, five-sixths of the total number employed) the average wage rate could not have been increased by as much as one-half cent per hour. (At 2000 hours per employee—50 weeks at 40 hours per week—General Electric provided some 360 million man-hours of employment. An additional \$1,000,000 spread evenly over five-sixths of this payroll amounts to one-third of a cent per hour, or less than 14 cents per week.) Nor

could \$1,000,000 added to net profits mean much to the average stockholder in a company with more than 250,000 stockholders.

Needless to say these practices are just as objectionable ethically whether indulged in by large companies or by small ones. Popular faith in private capitalism is inevitably weakened by acts of this sort. They also complicate the task of maintaining good labor relations. A firm that pays extravagant top salaries finds it very difficult to explain satisfactorily to the rank and file its inability to pay an additional five cents an hour. It is probably true that a cut-back of these salaries to the level of top clerks would not provide the means to advance wages generally by as much as one cent an hour. This answer does not satisfy the men, and the reason that it does not is probably due more to resentment at what they consider the overpayment at the top than it is to dissatisfaction with the going rate. This attitude complicates good labor-management relations and confronts large corporations with a problem which cannot be solved in a wholly satisfactory manner. Since really able leadership is extremely scarce, they must bid high for it, regardless of the reactions of the rank and file of their employees.

*Stock market speculation.* The market value of a company's common stock depends much more on future earnings than upon the value of the company's physical assets. The proceeds from the sale of \$100,000 worth of common stock may have been used to build a factory, but the stock will not be worth much if the factory operates at a loss. Stock values are exceedingly sensitive to coming events. This fact gives members of management an excellent opportunity to speculate in the stocks of their companies. They know a great deal more than outsiders possibly can know about coming developments that will affect the company's earnings, favorably or unfavorably. Indeed through a generous or a parsimonious dividend policy, or through the handling of obsolescence and depreciation expenses, or through the issuing of optimistic or pessimistic forecasts, and in many other ways, management can create misleading impressions regarding the affairs of the company and then buy or sell with the certainty of making a profit.

For obvious reasons this abuse is more likely to be found in large companies than in small ones. State laws and more recently federal laws have attempted to stop these practices. The situation is greatly improved.

The list of alleged sharp practices could be greatly lengthened. Many are already historical curiosities. This shows what can be done when public opinion is really aroused and stays aroused.

Unethical practices there will always be because of defects in human character. There is no reason to believe that the abolition of the corporation or the nationalization of all large businesses would reduce the opportunities for men to act dishonorably. It is probable that unethical practices occur at least as frequently in partnerships and individual proprietorships as in big corporations, in nationalized enterprises as in privately owned enterprises.

**The corporation and the problem of bigness.** Much more serious than the allegation that the privilege of incorporation has encouraged unethical business practices is the charge that it has made possible the growth of firms that are too big, from the point of view of efficiency; and dangerous because of the resulting concentration of power in private hands.

The "power" charge touches upon issues in the realm of political theory and political philosophy. The implication is that a workable democracy can be preserved only by limiting the maximum size of the firm, even if this means some sacrifice of material well-being. We shall have more to say about this problem in later chapters.

The charge that the privilege of incorporation permits firms to grow beyond their most economical size implies that competition is not effective. We shall be concerned with this charge throughout this book, but particularly in the next few chapters.

### *Questions:*

1. Distinguish between a plant, a firm, and an industry and identify the four legal forms used for carrying on business in the United States.
2. What legal forms do businesses usually assume when they require relatively large amounts of capital? Why?
3. "The legal definition of profits exaggerates their importance in the American national income." Indicate with supporting reasons your agreement or disagreement. In the event that you agree, what practical consequences appear to follow from this exaggeration?
4. Identify significant differences between corporations and partnerships, on the one hand, and corporations and cooperatives, on the other.
5. "The cooperative is a more democratic form of business organization than the corporation." Indicate with supporting reasons your agreement or disagreement. In the event that you agree, argue for or against the following proposition: "In a democratic society govern-

ment should actively promote the cooperative form of business organization.”

6. Do our federal personal and corporate income taxes favor certain forms of business organization more than others? If so, how? If you conclude that they do, discuss the social and economic effects of the differential treatment.
7. List the various ways in which a growing corporation can secure additional capital. Indicate in each case whether the new resources represent equity or nonequity capital. Explain the difference between equity and nonequity capital.
8. “Noncumulative preferred stock is frequently much more risky than common stock or bonds.” Identify these three types of securities and defend or rebut the statement.
9. Identify a few abuses which are alleged to be due to the corporate form of business organization.

PART TWO

*The Market Economy  
Under Pure Competition*



# *Markets and Competition*

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IN CHAPTER 3 we described competition as the force that compels the owners of resources to do the bidding of consumers. We turn now to a study of how this result is obtained. In this study we shall examine the operation of the entire signal system of an enterprise economy. We shall begin with an examination of how the signal system works when all economic activities are subjected to the discipline of competition. Later we shall examine the changes in the operation of the economy that arise when competitive pressures are weakened or eliminated.

## THE MEANING OF COMPETITION

Competition is one of the most elusive, yet one of the most important, concepts in economics. Even the professional economist has not been able to draw a sharp dividing line between competitive and noncompetitive behavior. It is not surprising then that Congress and the courts have found it difficult to define and enforce competitive conditions. Instead of black and white, these groups have been confronted with various shades of gray. The very light shades are clearly competitive; the very dark shades, clearly noncompetitive. But what of the shadings in between? Let us examine the various ways in which the economist approaches this problem.

**Markets.** Before attempting a definition of competition we would do well to recall the areas in economic life which the competitive discipline is supposed to govern. In Chapter 3 we indicated that competition is supposed to discipline men in all of their buying and selling activities. In other words, it is to the *markets* in which goods and services are bought and sold that we must turn our attention when we study competition.

Each household and each firm operates in many markets, some-

times as buyer, sometimes as seller. Each household is a buying unit when it is acquiring the food, clothing, and other goods and services used in the household. It is a selling unit when it offers its labor, its land or other natural resources, or its capital in the markets for resources. Each firm is a buying unit when it is acquiring the resources—the labor, land, capital, and managerial talent—which it uses to produce goods and services. It is a selling unit when it offers those goods and services for sale.

It is clear from this that each market is a two-sided affair, involving both buyers and sellers. It follows that for a market to be fully competitive there must be competition on both sides. That is, buyers must compete with buyers and sellers with sellers. For example, in a competitive labor market, workers will be competing for the available jobs, and employers will be competing for the available labor. It is a mistake to associate competition and its opposite, monopoly, only with the behavior of business firms as sellers of goods. It should be clear from our discussion that the behavior on either side of a market, whether it be a market for goods or a market for resources, can be classified as competitive or noncompetitive.

**The results of competition.** Still delaying a definition of competition, let us describe in general terms the results of competitive action. Competition results in a situation in which each individual can advance his own interest only by advancing the interests of others. Under competition, the owners of a business firm can increase their own incomes only by giving the customers of the firm more for their dollars. Under competition, workers can increase their own incomes only by making bigger contributions to the satisfaction of consumer wants.

**A definition of competition in terms of results.** This leads the way to a definition of competition in terms of results. Competition can be said to exist in a given market whenever each buyer and each seller in that market can improve his own economic position only by offering *more for less*. This is approximately the same definition as the one used in Chapter 3. It might be called a *performance test* for determining the existence of competition.

We shall make considerable use of this definition, but we must recognize its limitations. The most serious limitation of this definition is that the results of market behavior are not easy to assess. Reliable quantitative evidence showing that more is being offered for less in any given situation is often difficult if not impossible to obtain. For this reason, economists have usually defined competi-

tion not in terms of results but rather in terms of the organization of the market which they believe is necessary to produce competitive results. This approach provides us with an *organization test* for determining the existence of competition.

**Definitions of competition in terms of market organization and behavior.** The average person has a rough perception of the features of a market which tend to make it competitive or noncompetitive. He is uneasy whenever he finds that there is only one source of something he wants to buy or one buyer for something he wants to sell. He is uneasy whenever he lacks the technical knowledge to appraise what he is buying or selling. He is deeply disturbed to find that union rules or racial prejudice or some other factor prevents him from moving into a particular kind of work. He is suspicious of an arrangement under which the firms selling or buying some product seem to be "working together," rather than acting independently.

*"Ideal" competition.* These same factors are recognized in the economist's classification of markets. We shall present first a very demanding definition of competition, which we shall always refer to hereafter as *"ideal" competition*. The requirements of "ideal" competition are as follows:

(1) Each buying unit and each selling unit must be so small relative to the total market that by its own activities it can have no perceptible influence on the market price. This is illustrated in the selling of wheat in the United States. If one American wheat farmer were to hold his wheat off the market, what would happen to the price of wheat? The answer: Nothing.

(2) Each unit of the goods or services sold must be a perfect substitute for each other unit. This often requires more than that the units be technically identical. Because of personal or locational factors, a tube of a certain toothpaste sold in one store may not be the same to a consumer as another tube of the same size and brand sold in another store. Pure competition requires that there be no preference for one seller or buyer over another on any basis other than price.

(3) Each person involved in the market must have *full knowledge* of the alternatives confronting him.

(4) Each economic unit must be perfectly willing and able to act on the basis of that knowledge, to move from one alternative to another. This is often referred to as the requirement of *mobility*.

(5) Each economic unit must be acting independently. That is,

there must be no collusion among buyers against sellers or among sellers against buyers.

*The significance of "Ideal" competition.* It is obvious that many of the foregoing requirements can never be realized in economic life. Of what use then is the definition? Admittedly it is of little *direct* use in analyzing the actual behavior of our economy or as a guide to public policy. However, it can contribute *indirectly* to both these purposes. It provides the economist with an analytical tool of considerable importance. It can be used as a bench-mark against which to measure degrees and forms of deviations from "ideal" conditions. Also it focuses attention on those aspects of market organization and behavior which determine the way in which a market operates. Those aspects are:

- (1) the size of the economic unit relative to the market;
- (2) the degree of homogeneity of the items being exchanged;
- (3) the degree to which the participants are acting on the basis of knowledge;
- (4) the degree of mobility of the participants;
- (5) the degree to which the participants are acting independently.

These characteristics are the ones used in classifying actual markets in an enterprise economy. As we shall see, they are the keys to an understanding of both competitive and noncompetitive behavior.

*Pure competition.* By relaxing the requirements of "ideal" competition, it is possible to construct one which is more realistic, more directly useful, yet still of value as a tool of analysis. The modified definition is as follows:

- (1) Each buyer and each seller, acting alone, can exert so little influence on the market price that it does not pay him to attempt to do so.
- (2) Each unit of the good or service sold is so much like every other unit that buyers and sellers will react to any but very small differences in price.
- (3) Enough buyers are possessed of sufficient knowledge of the alternatives to keep the sellers in line, and vice versa.
- (4) Enough buyers are sufficiently willing and able to move from one alternative to another to keep the sellers in line, and vice versa.
- (5) Just as before, each buyer and each seller acts independently.

The advantages of this over the first definition of competition will be made clear as we proceed with our study of an enterprise system. In the future we shall distinguish between the two by calling this one "pure competition," and both will be distinguished in a later chapter from a still less exacting concept which will be referred to as "effective competition" or "workable competition."

### NONCOMPETITIVE MARKETS

Whenever one or more of the preceding conditions is missing in the market for a particular good, that market is technically a non-competitive market. However, we shall find that certain market forms which do not meet the technical requirements for pure competition are as efficient in yielding consumer satisfactions as those which do—in some cases, even more efficient! It is in connection with such market situations that we shall use the terms "effective competition" and "workable competition." In view of the fact that there are many types of markets, ranging from purely competitive to completely monopolistic, it is evident that the terms "competitive" and "noncompetitive" are only roughly descriptive and are not synonymous with "good" and "bad."

**Deviations from purely competitive markets.** The following deviations from technically competitive conditions will be discussed in later chapters:

- (1) *Monopolistic competition* describes a market situation in which all of the requirements for pure competition are met but the requirement of standardized product. The distinguishing characteristic of this type of market is product differentiation.
- (2) *Oligopoly* describes a market situation in which each seller is large enough relative to the market to be able to exert a significant influence on the market price. It is characterized by fewness of sellers and difficult entry into the market. *Duopoly* is a form of oligopoly in which but two sellers operate in the market.
- (3) *Monopoly* is a situation in which only one supplier operates in the market.
- (4) *Cartel* is a market situation in which the sellers of the good or service make joint rather than independent decisions about price, output, and other policies. Collusion is a form of behavior that may be found in any of the market situations described above.

These four definitions were expressed in terms of the activities of sellers. When buyers rather than sellers are involved, we shall follow established practice and use the designations *monopsonistic competition*, *oligopsony*, *duopsony* and *monopsony*. Cartel is used to describe collusive action on either side of the market.

### ON THE MEANING OF MARKET

Up to this point we have deliberately refrained from defining the term "market." It should be apparent that it too is an elusive concept. The economist uses the word "market" to describe the process of exchange. It is, however, a process that always involves the following elements: a good or service (or some group of goods or services), buyers, sellers, area (place), and time.

This far we can go without difficulty. But the definitions of competitive and noncompetitive conditions given before require that we draw up specifications for each of the elements in the market process for each market that we wish to examine. For example, monopoly was said to be a situation in which only one supplier operates in the market. Here is a town in which there is only one supplier of new lumber and lumber products. Is this supplier a monopolist? The answer depends on how the market is defined.

**Market as area.** If the commodity exchange is limited to new lumber and lumber products and if the area is permitted to embrace only the town itself, this supplier could be described as a monopolist. However, if the area specification were changed to recognize the fact that suppliers in neighboring communities can also sell in this town, this one dealer could not be described as a monopolist. In the buying and selling of some good or service where transportation costs are relatively low (as in the buying and selling of insurance), the market area may actually embrace a whole country or even a large part of the world. Even in the marketing of bulky commodities like steel and steel products, suppliers from all over the world may be in active competition with one another. This illustrates the importance (and difficulty) of drawing up area specifications for each market under study.

**Market as commodity.** Again, if the commodity specifications for the market under discussion were changed to read, "building supplies," the new lumber dealer could be seen to face competition from the sellers of other products that are directly competitive with new lumber in many uses—the suppliers of used lumber, brick, concrete and concrete blocks, for example. Aluminum competes with plywoods, veneer woods, and light steels; California oranges com-

pete with Florida grapefruit; milk is in competition with a dozen other beverages; trucks vie with railroads, ships, and airplanes; new cars are in competition with second-hand cars. This *competition of substitutes* reduces the significance of the much publicized findings regarding the high degree of concentration in various industries. This kind of competition effectively limits the ability of many so-called “noncompetitive” firms to exploit the consumer.

**Market as time.** Finally any realistic description of market behavior in the United States today requires recognition of the role that time plays in managerial decisions. A firm may have a complete monopoly in a market (in the area or the commodity sense) and yet refuse to exploit its advantage because of its knowledge that entry into the market is very easy and that the charging of a high price will soon bring this about. It defends its monopoly position by acting as though it were operating in a purely competitive market. Or it has a legalized monopoly—through a patent, for example, but hesitates to charge all that the traffic will bear because of its knowledge that this will encourage research by other firms directed at discovering new and superior processes not covered by its patents. With a large investment in specialized plant and equipment and with perhaps a still larger investment in the research on which its patent rights are based,<sup>1</sup> it is convinced that the only way to protect this investment is to keep the price of its product as low as possible. This type of behavior is all the more likely if the market demand for the product is highly elastic. The term *potential competition* is used to describe such situations as these.

We shall have occasion to return to this discussion later. At this time it is important only to warn the reader that the phrase, “the market for a good,” requires specific definition whenever it is to be used in analyzing actual behavior or as a guide to public policy.

### Questions:

1. Distinguish between “ideal” and “pure” competition and identify the conditions that must be satisfied in each case.
2. Distinguish between “performance” and “market organization” tests of competition.

<sup>1</sup> In *Big Business: A New Era* (New York: Harper & Bros., 1952-53), p. 69, David E. Lilienthal reports that Du Pont spent \$27,000,000 and more than thirteen years before nylon could be put on the market. It took eleven years of research to perfect Monsanto Chemical Company's new chemical substance for changing soil structure, *Krilium*.

3. Explain why many economists regard the concept of “pure” competition as a valuable analytical tool, despite the fact that it can never be realized in the real world.
4. Identify the nine market situations listed in the text as representing the principal deviations from pure markets and define the term “market” as it is used in the text.
5. Give examples from your experience of “potential competition” and the “competition of substitutes” and define the two terms.
6. What bearing, if any, have the two foregoing types of competition on the determination of the existence or absence of competition?

# *Demand:*

## *The Laws of Consumption*

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WE TURN NOW to a study of how the signal system of an enterprise economy guides resources into the uses desired by consumers. In Chapter 3 we identified the elements of the signal system as prices (including prices of resources as well as prices of goods and services), profits, and losses. We start our study of this system with the consumer, for it is the consumer who generates the initial impulse. He does this by sending out a "call" for particular goods and services. We shall trace this call as it is interpreted by the firms, transmitted to the owners of resources, and eventually answered by the production and sale of goods and services. First, however, we must examine the nature of the call itself. We must study human wants and how an individual ranks them and decides which shall get satisfied and which shall go unsatisfied.

### THE MEANING OF DEMAND

**Individual demand.** In economics the call of a consumer for a particular item is known as his demand for that item. *Individual demand*, as viewed by the economist, is a panoramic picture of a particular consumer's attitude, or reaction, toward some particular commodity. The economist defines individual demand as a schedule of the quantities of a good which a consumer stands ready to take off the market at a series of prices at a given moment of time. It is this schedule which represents his call for the good.

**Market demand.** The *market demand* for a good is the summation of the demand schedules of all of the individuals participating in the market. This is illustrated in Table 7-1. The five prices in

the left-hand column are to be regarded as selections from a larger range of prices beginning well above \$2.00 a pound and declining by penny (or smaller) intervals to a price well below 25¢ a pound. The reactions of consumers A, B, C, and D to the five prices are shown in columns 2, 3, 4, and 5. Consumer A, for example, will buy no coffee if the price is \$2.00 and 7 pounds if the price is 25¢. In between these two prices, the quantities he would take, assuming coffee can be bought in small fractions of a pound, would vary continuously. The quantities bought at the prices shown in column 1 are his responses to a few of the specific prices in his total schedule. The same holds true of consumers B, C, and D. The total market call for coffee is shown in column 6. It is the summation of the calls of the participants. It is the *market demand* for coffee. It shows the total number of pounds that the participants will take at each of the selected prices.

TABLE 7-1  
INDIVIDUAL AND MARKET DEMAND FOR COFFEE

(1) Price per pound (\$)	Quantity in Pounds of Coffee Purchased per Month				
	(2) Consumer A	(3) Consumer B	(4) Consumer C	(5) Consumer D	(6) Total
2.00	0	1	0	2	3
1.00	1	2	0	4	7
.75	2	3	0	6	11
.50	4	4	0	8	16
.25	7	5	1	10	23

We stress the fact that demand, as used by the economist, refers to a *schedule* linking a series of prices to a series of quantities. The single word "demand" does not refer to the quantity purchased at one particular price. For example, the economist does not say that the market demand for coffee at a price of \$1.00 is seven pounds. Rather he says that the *amount demanded* or *quantity taken* at a price of \$1.00 is seven pounds. The single word "demand" is reserved to designate the entire schedule. A precise language is as important to the economist as it is to all other scientists.

**Graphic presentation of demand.** The economist finds it convenient and desirable to present material like that in Table 7-1 in graphic form. In graphing demand schedules, it is customary to let

the Y- or vertical-axis represent prices and the X- or horizontal-axis represent quantities. Figure 7-1 is a graphic presentation of the materials in Table 7-1.

Graphic presentation is very helpful in explaining the operation of market forces. Considerable use will be made of the device throughout the book. It should be remembered, however, that the smooth curves of the economist's graphs reflect precise mathematical relationships which can never be completely realized in the real world where prices and quantities cannot be varied by infinitely small amounts. Thus the A curve in the Fig. 7-1 which shows A's

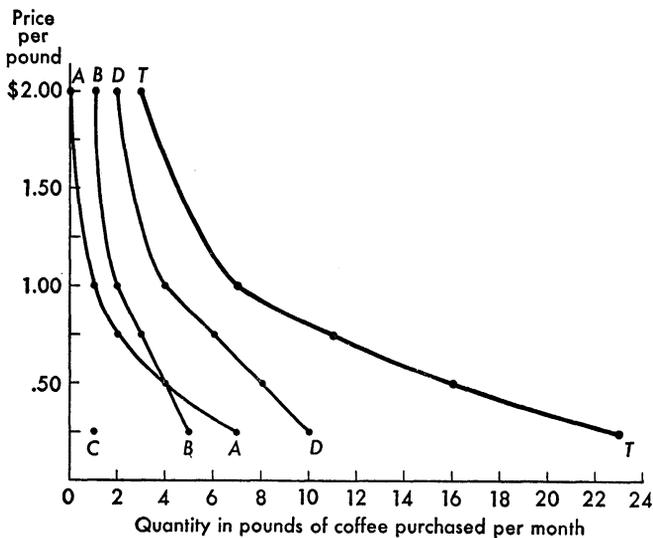


FIG. 7-1

demand for coffee is built upon the known relationship between the 5 prices and the 5 quantities shown in A's demand schedule. All that we really have is 5 points. When we connect them by a smooth curve we make the assumption that the quantity of a good can be varied by infinitely small amounts and that A will respond to infinitely small changes in price by infinitely small changes in the quantities he will buy. The same holds true for B, C, and D. The curve marked T is the market demand curve.

We are now in a position to define demand curves. An *individual demand curve* is a graphic statement or presentation of the quantities of a good which a particular consumer stands ready to take off the market *at all possible prices* at a given moment of time.

A *market demand curve* is a graphic representation of the quantities of a good which all of the participants in a market stand ready to take off the market *at all possible prices* at a given moment of time.

### THE DETERMINANTS OF DEMAND

The calls of consumers are their demands for the various goods and services that can be produced in the economy. But what determines whether the call of a consumer for a particular good will be loud or weak? Why does Consumer A stand ready to buy 4 rather than 2 or 8 pounds of coffee at a price of 50 cents? Why is Consumer C unwilling to buy any at this price, whereas Consumer D is willing to buy 8 pounds?

The answers to these questions are to be found in three factors which we shall call the determinants of demand. The three determinants are (1) the *tastes and preferences* of the consumer; (2) the *money resources* of the consumer; and (3) the *prices of related commodities*.

**Tastes and preferences.** The first factor in determining a consumer's demand for a good is the intensity of his desire for the good. His desire for the good is in turn determined by how much satisfaction he expects to derive from using (consuming) the good. The power of a good to satisfy human wants is referred to as its *utility*. Obviously no two persons assign identical utilities to a given good. Nor is there a standard unit in which utility may be measured.

The phrase "tastes and preferences" refers not just to the utility to the consumer of the good in question but to the *relative utility* of the good. That is, the call which a consumer sends out for coffee is determined by how strongly he wants the coffee *relative* to how strongly he wants other goods. It is this ranking or pattern of preferences that is referred to in the phrase, "tastes and preferences."

The economist is not directly concerned with how this preference pattern comes into existence. Nor is he directly concerned with whether the consumer wants the "right" things. These are questions for the psychologist, the sociologist, the moralist, and others. The economist is concerned only with how preference patterns influence the calls for goods and services in the economy.

**Money resources.** We are all painfully aware of the fact that desire alone is not adequate to obtain a given good. It is not enough to want coffee; it is necessary to back up this want with

something the seller wants. Thus Consumer C in Table 7-1 may have wanted coffee as much as Consumer D but may have lacked the money resources of Consumer D. We shall have something to say later regarding the reasons for Consumer D's lack of money resources. Here, however, we are concerned only with the fact that he does lack money and that this is one of the factors influencing his demand for coffee. Other things being equal, the greater a person's money resources, the greater his demand for a good, and vice versa.

Differences in demand may be more than or less than proportionate to differences in resources. In fact, there are goods for which the demand tends to go down as the money resources of a consumer go up! The less desirable cuts of meat and second-hand clothes are goods of this kind. Coffee would be in the larger group of goods and services for which the demand varies directly with the money resources of consumers.

Increases or decreases in the money resources of all or of most consumers produce significant changes in the relative pattern of demands. This in turn calls for a substantial adjustment of resources and often presents serious problems to particular groups and areas in the economy. If the change is a rapid fall in the money resources of consumers, the problems may include serious unemployment. We shall come back to the causes and consequences of economy-wide changes in money resources in our discussion of a country's money supply.

**The prices of related commodities.** The careful buyer takes account not only of how much he desires a given commodity and of the size of his money resources, but also of the prices of related commodities. For example, our coffee buyers would presumably take into account the prices of tea and other *substitutes* for coffee. They would also be influenced by the prices of cream and sugar, *complements* of coffee.

Other things being equal, a fall in the price of tea (a substitute for coffee) would reduce the demand for coffee, and vice versa. A fall in the price of cream (a complement) would, on the other hand, tend to increase the demand for coffee. These interrelationships of demand are very extensive and very intricate in a modern economy. They account, in part, for the fact that a change in the demand for one good will affect the demand for many others, thus setting into motion reactions which carry through the entire economy. The changing demands of consumers thus affect all prices. The resulting interdependence, in turn, accounts for the difficulty

governments have encountered in attempting a "partial" control of economic activities.

### CHANGES IN DEMAND

It should be clear from the discussion that a change in any one of the determinants of demand produces a change in demand. If the consumer comes to like coffee more or less than before, relative to his wants for other goods, or if his money resources are increased or diminished, or if the prices of related commodities change, the consumer's demand for coffee will change.

It may not be equally clear that demand changes *only* with a change in one or more of these determinants. Particularly, it may be difficult to see why a change in the price of coffee does not produce a change in the demand for coffee. The difference between the effect of a change in the price of coffee and the effect of a change in one of the determinants of the demand for coffee can be seen by reference to Fig. 7-2.

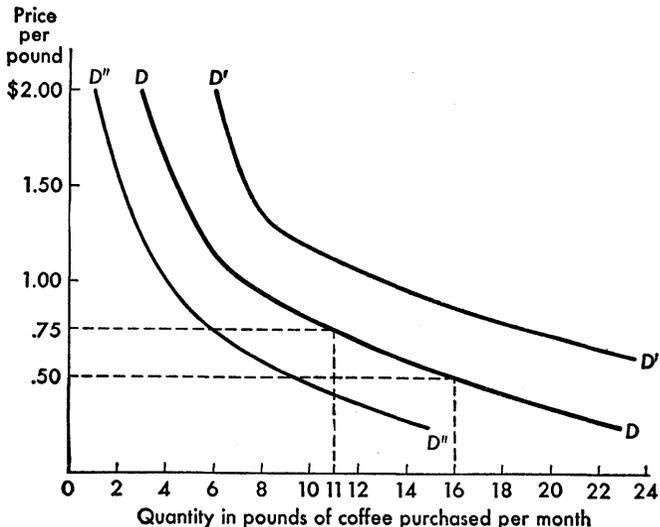


FIG. 7-2

The curved line,  $DD$ , represents the original demand for coffee. An increase in demand, caused by a change in one or more of the three determinants of demand, is represented by a new demand curve,  $D'D'$ , lying above and to the right of the original curve.

Similarly, a decrease in demand is represented by a new demand curve,  $D''D''$ , lying below and to the left of the original curve.

With the original curve holding (that is, with no change in the basic determinants of demand), a change in the price of coffee from 75 cents a pound to 50 cents a pound would lead to a change in the *amount taken* from 11 pounds per month to 16 pounds per month—but would not cause a change in the demand (demand curve) itself. A change in the demand itself can come only through a change in one or more of the determinants of demand. The geometrician might prefer to think of a change in demand as involving a movement to a new curve, whereas a change in the price of the good involves only a movement along the old curve.

### THE LAW OF DEMAND

The demand schedules presented in Table 7-1 indicated that the consumers were willing to buy more coffee at lower prices than at higher prices. We shall find this relationship to be characteristic of *all* demand schedules. This relationship between prices and quantities taken is often referred to as *the law of demand*. The law states that, other things being equal, the quantity of a good that will be purchased varies inversely with the price of the good. That is, the lower the price, the larger the quantity, and vice versa.

If this law be valid, how then can we explain the fact that Americans were buying more coffee in 1950 than in 1940, although the price of coffee was substantially higher in 1950 than in 1940? The answer is that other things did not remain equal between 1940 and 1950. Particularly the money resources of consumers increased substantially during this period of time. The resulting movement of the demand curve for coffee explains the seeming paradox.

**Marginal utility.** The reason for the inverse relationship between prices and quantities taken lies in part in a psychological principle known as *the law of diminishing marginal utility*. In inexact language, this law states that the more a person has of something, the less he values any one unit of it.

A more precise statement of the law requires a definition of marginal utility. Utility was defined before as the power of a good to satisfy human wants. It may also be thought of as the property of a good which leads consumers to wish to acquire it. Table 7-2 presents a schedule of the satisfaction a given consumer would derive from consuming various quantities of homogeneous

good. We shall use a fictitious unit, the *util*, to measure levels of satisfaction.

TABLE 7-2

Cups of Coffee Consumed per day	Total Utility (utils)	Marginal Utility (utils)
		10
1	10	9
2	19	7
3	26	4
4	30	1
5	31	-2
6	29	

This consumer (who obviously is not one of the twenty-cups-a-day men so dear to the heart of the Brazilian coffee grower) finds that, up to a point, his total satisfaction increases as his consumption of coffee increases. However, the *rate of increase* is constantly diminishing. The fourth cup per day would add only four units of satisfaction whereas the third would add seven, the second nine, and the first ten units of satisfaction.

These figures, which measure the change in total satisfaction as consumption increases, are given in the column headed "Marginal Utility." *Marginal utility*, then, is the increase in total satisfaction which comes with a unit increase in the rate of consumption of a good. At a rate of consumption of three cups of coffee per day, total utility is twenty-six units and marginal utility is seven units (the difference between twenty-six and nineteen). At a rate of consumption of four, total utility is thirty and marginal utility is four (the difference between thirty and twenty-six).<sup>1</sup>

The material in Table 7-2 indicates that marginal utility diminishes as the rate of consumption increases, other things being

<sup>1</sup> The figure, 4, representing the marginal utility at a rate of consumption of four, is placed *between* the row starting with a rate of consumption of three and the row starting with a rate of consumption of four. For reasons that do not concern us here, a marginal quantity should be shown (and plotted, if graphic presentation is being used) at the mid-point of the interval to which it applies, rather than at either end of that interval.

equal.<sup>2</sup> This is the principle of diminishing marginal utility. How does it help us explain the inverse relationship between prices and quantities taken? In this way: When the coffee drinker buys coffee, he is sacrificing satisfactions that could be gained by spending the money on other goods and services. The second cup of coffee a day is "worth" nine units of satisfaction to him (that is, he would lose nine units of satisfaction if he were to drink one rather than two cups a day); the fifth cup is "worth" only one unit of satisfaction. Consequently, this coffee drinker would give up more to acquire a second cup a day than he would a fifth cup. As the sacrifice entailed in getting a cup of coffee (the price per cup) goes down, his rate of consumption of coffee goes up; as the price goes up, his rate of consumption goes down.

The principle of diminishing marginal utility explains the inverse relationship between prices and quantities shown in the demand schedule of an individual consumer for a particular good. When we turn to the market demand for a good, we find that other factors contribute to this result as well. A factor of particular importance is an unequal distribution of money resources. At a high price for a commodity, its use may be limited to the very wealthy. At a lower price, the way is opened for people with fewer resources to enter the market. This means that more coffee would be sold in a market at a lower price than at a higher price even if the marginal utility of coffee to many consumers did not diminish as the rate of consumption increased.

**Some applications of diminishing marginal utility.** The principle of diminishing marginal utility has been put to many uses. For example, it has been used in attempts to show that even the gambler who "breaks even" over a period of time suffers a net loss of satisfactions. The assumption is that the marginal utility of money diminishes with increases in an individual's stock of money in the same way as the marginal utility of any other commodity. Given this assumption, it can be demonstrated that a dollar won in a given gamble adds less to the satisfactions of the individual than the reduction in satisfactions from the loss of a dollar. It follows that even "breaking even" over time involves a net loss of satisfactions.

<sup>2</sup> The illustration shows marginal utility diminishing from the very first unit. It is not impossible for marginal utility first to increase, then to diminish as the rate of consumption is increased from zero. The second cup of coffee at breakfast may make a larger contribution to the coffee-drinker's satisfactions than did the first. Diminishing marginal utility might not set in until the third or fourth cup. This possibility does not reduce the usefulness of the concept of diminishing marginal utility.

This analysis ignores the satisfactions the gambler derives from the gambling itself, regardless of winnings or losses. Also, the validity of the assumption of diminishing marginal utility of money is difficult to prove or disprove. It is on this same assumption that some part of the argument in support of equalization of money incomes is based. It is argued that total satisfactions could be increased by taking dollars away from the rich, to whom each dollar means little, and giving them to the poor, to whom each dollar means much.

The important question in an enterprise economy is not whether this argument is correct or incorrect; it is whether it would be desirable to act on the basis of the thesis if it were correct. To take the full action implied in the thesis would be to destroy the incentive system of an enterprise economy and, hence, to force the people to select some other type of economic system. This they may be willing to do; however, if they desire to continue to use an enterprise system, they must recognize that a forced and radical equalization of incomes is inconsistent with the operating requirements of the system.

We shall return to this topic in our discussions of fiscal policy and of other forms of economic organization.

### THE CONSUMER'S SPENDING PATTERN

The law of demand shows why a would-be coffee drinker must weigh the satisfaction gained by drinking one more cup of coffee a day against the sacrifice he makes when he spends his money on the cup of coffee rather than on something else. From this it follows that the careful buyer will not spend his money on one commodity if he can obtain a larger increase in satisfaction by spending it on one or more other commodities.

If all commodities could be purchased in minute fractions of a unit and if the dollar could be divided into minute fractions of a dollar, the careful buyer would allocate his money resources in such a way that the last minute fraction of a dollar spent on one commodity would bring the same increase in satisfaction as the same fraction of a dollar spent on any other commodity. A consumer who had allocated his money in this way would be in an *equilibrium* position. He could not gain by buying less of one commodity and more of another. Hence his spending pattern would remain unchanged until such time as one or more of the determinants of his demand changed. A situation in which all consum-

ers have attained their equilibrium positions is referred to as one of *general equilibrium* in consumer spending.

In the real world various factors limit the ability of the individual consumer to reach his equilibrium spending pattern. In the first place, the average consumer does not buy with the care needed to bring him to the equilibrium position. Also, neither goods nor money is infinitely divisible. Consequently, the average consumer arrives, at best, at a very rough approximation of the equilibrium pattern.

In spite of this, the concept of consumer equilibrium provides us with a useful insight into some of the tendencies at work in the real world. After all, the average consumer does attempt to "get the most for his money." General equilibrium is simply a description of the situation that would exist if all consumers were completely successful in doing so.

### *Questions:*

1. Define (a) individual demand schedule, (b) individual demand curve, (c) market demand schedule, (d) market demand curve.
2. If a person's desire for a good is determined by how much satisfaction he expects to get from using it, what is the explanation for the fact that the market value of a diamond in the United States greatly exceeds that of a loaf of bread? Can you imagine a situation in which the converse would be true?
3. Identify the determinants of demand and illustrate the effect of a change in each on an individual's demand schedule.
4. Explain and illustrate by diagram the difference between "a change in demand" and "a change in the quantity demanded."
5. State the law of demand and explain it by use of the principle of diminishing marginal utility.
6. State the principle of diminishing marginal utility. Argue for or against the validity of the proposition: "The principle proves that the economic well being of the members of a society would be maximized if money incomes were equalized."
7. Identify the concept of "consumer equilibrium" and indicate with supporting reasons whether an individual can ever attain this type of equilibrium. If it is unattainable, what useful purpose does the concept serve?

## *Demand Elasticities*

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THE law of demand describes the *direction* of the response of the consumer to a change in price. We turn now to a study of the *intensity* of the response of the consumer to a change in price. This aspect of consumer behavior is studied under the heading, *elasticity of demand*. In the second part of the chapter we shall use the elasticity concept to describe the demand for a good as it is seen by the managers of firms operating under the discipline of competition.

### THE MEANING OF ELASTICITY

The law of demand describes the fact that, other things being equal, consumers will buy more of a good at a lower price than at a higher price. The elasticity concept asks the question, "Is the change in quantity taken more than, less than, or just proportionate to the change in price?" In other words, how intense is the response of the consumer to the change in price?

The elasticity of demand is defined as the percentage change in quantity taken divided by the percentage change in price. For example, if a 10 percent reduction in price were to lead to a 20 percent increase in quantity taken, the elasticity of demand would be equal to  $-2$ . If a 10 percent reduction in price were to lead to a 5 percent increase in quantity taken, the elasticity of demand would be equal to  $-0.5$ . (The minus sign identifies the fact that prices and quantities taken vary inversely. Because prices and quantities offered by suppliers usually vary directly, the elasticity of *supply* with which we shall be concerned presently usually carries a plus sign.)

### DEGREES OF ELASTICITY

The economist recognizes degrees of elasticity ranging from zero to infinity with unit elasticity as the dividing line, separating de-

mands that are said to be elastic from demands that are said to be inelastic. It is important to note that all demands except those represented by the limiting case of zero elasticity have some degree of elasticity. All that is meant when it is said that a demand is inelastic is that it possesses elasticity greater than zero but less than unity.

Demand is said to be *elastic* when the percentage change in quantity taken is greater than the percentage change in price. It is said to be *inelastic* when the percentage change in quantity taken is less than the percentage change in price. Demand is said to possess *unit elasticity* (or to have an elasticity of unity) when the percentage change in quantity taken is equal to the percentage change in price.

At one extreme is the completely (or infinitely) elastic demand. A minute change in price produces an enormous change in quantity taken. It is represented graphically by a straight line parallel to the X- or quantity-axis at the level of the going price. The demand represented by the straight line  $D_1$  in Fig. 8-1 is infinitely elastic. It is uniquely associated with the demand facing the seller under competition.

At the other extreme is the completely inelastic demand. Consumers are completely unresponsive to a price change. They will buy a given quantity of the good regardless of the price. It is represented graphically by a straight line perpendicular to the X-axis at the given quantity. The demand represented by the straight line  $D_2$  in Fig. 8-1 is completely inelastic.

A demand with unit elasticity is represented graphically by a rectangular hyperbola. The demand represented by the curve  $D_3$  in Fig. 8-1 possesses unit elasticity. In general, the more elastic the demand curve, the closer it approaches a straight line parallel to the X-axis. A relatively elastic demand is illustrated by the  $D_4$  curve in Fig. 8-2. The more inelastic a curve, the closer it approaches a straight line perpendicular to the X-axis. A relatively inelastic demand is illustrated by the curve  $D_5$  in Fig. 8-2. However, the appearance of a demand curve is not always a reliable guide to the

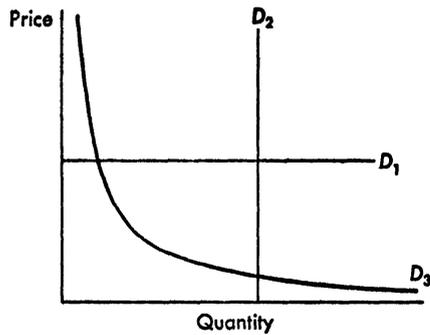


FIG. 8-1

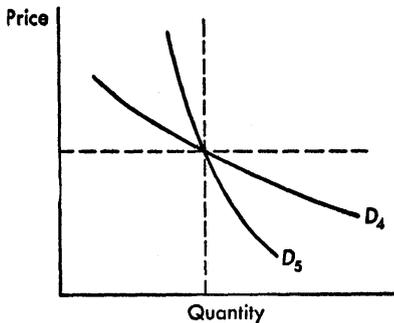


FIG. 8-2

A straight-line demand curve, far from possessing a constant degree of elasticity, is possessed of a different degree of elasticity at each point on the line (except in the limiting cases of infinitely elastic and completely inelastic demands). Thus when the demand for a commodity is described as elastic (or inelastic) what is usually meant is that over the range of prices relevant to the problem at hand the demand is elastic (or inelastic).

### THE SIGNIFICANCE OF ELASTICITY

To what purposes may this concept be put? How does it contribute to an understanding of behavior in the real world? In the first place, everyone who has anything to sell is interested in the elasticity of demand for the good or service he is selling. If he reduces the price, will consumers buy a little more or a lot more? If he raises the price, will consumers buy a little less or a lot less? A common goal of the market research undertaken by modern business firms is to make a rough approximation of the elasticity of demand for the products of the firms. An important purpose of advertising is to increase the demand for the product advertised and make the new demand more inelastic.

Whenever sellers are taking joint action, they are particularly interested in the elasticity of demand. For example, when workers are taking joint action through a union, they wish to know whether an increase in wages will lead to a large or small drop in employment opportunities. In general, the more inelastic the demand for the labor of the workers, the more vigorously will the union press demands for a wage increase.

Our present farm program owes its existence to the fact that the demand for many agricultural products is inelastic. Because consumers are relatively insensitive to price changes, a large reduction

elasticity of demand. The measures of elasticity described later are more reliable tests of the degree of elasticity than are visual tests.

The typical demand schedule (curve) will not possess constant elasticity throughout. It may exhibit relative inelasticity over some ranges of prices, unit elasticity over other ranges, and relative elasticity over still other ranges.

in price is needed to clear the market of an above-average crop. Farmers as a group are frequently in the unfortunate position of having to sell a larger crop for less than a smaller crop! The crop restriction programs undertaken in agriculture would never have been considered had the demand for farm products been elastic rather than inelastic.

The elasticity concept is a tool of analysis that must be part of the equipment of every economist—and every student of economics.

**MEASURES OF ELASTICITY**

The definition of elasticity of demand as the percentage change in quantity taken divided by the percentage change in price is itself a measure of the degree of elasticity. However, other measures can be developed from this definition, measures that are often more convenient or more meaningful. These measures derive from two further definitions which can usefully be introduced at this point.

**Total revenue.** The *total revenue* from the sale of a given quantity of a good is defined as the price per unit multiplied by the number of units sold at that price. Thus, in Table 8-1, the total revenue from the sale of coffee at a price of \$1.00 would be \$1.00 multiplied by 2 (the quantity taken), or \$2.00. The total revenue at a price of 75¢ would be 75¢ multiplied by 3, or \$2.25.

**Marginal revenue.** Marginal revenue is the change in total revenue per unit change in quantity sold. From Table 8-1, it is apparent that total revenue will rise from \$2.00 to \$2.25 if the price is reduced from \$1.00 to 75¢. The additional or *marginal revenue* at a rate of sales of 3 is thus 25¢.

TABLE 8-1

Price per Pound	Pounds of Coffee Taken	Total Revenue	Marginal Revenue	Arc Elasticity of Demand
\$2.00	1	\$2.00		
1.00	2	2.00	\$0.00	-1.00
.75	3	2.25	0.25	-1.40
.50	4	2.00	-0.25	-.71
.25	5	1.25	-0.75	-.33

Another way of viewing marginal revenue at a given rate of sales is to look on it as the change in total revenue that would come if the rate of sales were reduced by one. Thus, at a rate of 3, 25¢ of total revenue would be "lost" by a price increase which reduced the rate of sales to 2.

**Elasticity and total revenue.** Degrees of elasticity can be identified by the changes in total revenue associated with price changes. If, between two prices, the price and the total revenue vary inversely, the demand between those prices is elastic. Thus, in Table 8-1, inspection shows that as the price falls from \$1.00 to 75¢ the total revenue goes up. Or, reversing the direction, as the price goes up, the total revenue goes down. This means that the demand is elastic between these two prices.

If, between two prices, the price and the total revenue vary directly, the demand within this price range is inelastic. In Table 8-1, total revenue goes down between 75¢ and 50¢. This means that the demand is inelastic in this range.

If the total revenue remains constant between any two consecutive prices, the demand between those prices has unit elasticity. In Table 8-1, the total revenue does not change between the prices of \$2.00 and \$1.00. The change in quantity taken just offsets the change in price. This means that the demand has unit elasticity within this price range.

It should be noted that it is most unlikely that the demand for a commodity would possess the same degree of elasticity throughout any large range of prices. This is true in the case of a single consumer. It is still more true in the case of a large group of consumers with different money incomes and different preference patterns, as may be seen by looking back at Fig. 7-1 in the preceding chapter. The T or market demand curve becomes progressively more elastic as more and more consumers enter the market.

Variations in total revenue as a result of price changes provide a very useful measure of elasticity. Firms are interested in the effect of price changes on dollar sales (total revenue), and this measure is stated in just these terms. The ease with which this measure can be computed is another factor in its favor.

**Marginal revenue and elasticity.** The measure of elasticity given above is stated in terms of changes in total revenue. Because marginal revenue is a measure of changes in total revenue, the elasticity of demand can also be determined by the *sign* of the marginal revenue at a given rate of sales. If marginal revenue is positive, demand is elastic; if marginal revenue is negative, demand is inelastic; if

marginal revenue is zero, demand has unit elasticity. A brief check of Table 8-1 will confirm these statements.

**Arc elasticity of demand.** The foregoing measures of elasticity of demand can be used to determine whether demand has an elasticity greater than, less than, or equal to unity. However, they do not yield an exact figure. The following formula (which can be derived from the definition of demand) provides a convenient way of computing the exact degree of elasticity of demand:

$$\text{Elasticity} = \frac{\frac{Q_0 - Q_1}{Q_0 + Q_1}}{\frac{P_0 - P_1}{P_0 + P_1}}$$

where  $P_0$  and  $Q_0$  represent one price and the quantity taken at that price;  $P_1$  and  $Q_1$  represent another price and the quantity taken at that price.

For example from Table 8-1 let \$1.00 be  $P_0$  and 75¢ be  $P_1$ ;  $Q_0$  would then be 2, and  $Q_1$  would be 3. Substituting these values in the arc elasticity formula yields an arc elasticity of demand figure of  $-1.40$ .

If the figure derived in this way falls between a minus one and a minus infinity, the demand is elastic. If it falls between zero and a minus one, the demand is inelastic. If it is equal to a minus one, the demand possesses unit elasticity.

The interpretation of the exact figure is as follows: An arc elasticity of demand of  $-3$  means that a 1 percent change in price will induce a 3 percent change in quantity taken. An arc elasticity of demand of  $-0.5$  means that a 1 percent change in price will induce a 0.5 percent change in quantity taken.

### THE DETERMINANTS OF ELASTICITY

What determines whether the demand for a good will be elastic or inelastic? The answer to this question is to be found in large part in the relationship of goods to one another. These relationships were noted in the discussion of the determinants of demand in the preceding chapter. It was pointed out there that some goods are substitutes for others, and that some goods are complements of others.

**The role of substitution.** In general, the existence of close substitutes for a commodity tends to make the demand for the com-

modity elastic. Conversely, the demand for a commodity for which there are no close substitutes tends to be inelastic.

To illustrate, if the price of maple syrup were to increase, many consumers would turn to other kinds of syrup. If the price of maple syrup were to decrease, many consumers would change from other syrups to maple syrup. The availability of close substitutes makes consumers sensitive to changes in the price of maple syrup; hence the demand for it tends to be elastic.

On the other hand, consumers would probably buy about as much table salt after as before a price rise because there are no close substitutes for salt for seasoning purposes, and also because in the United States today the outlay for salt is insignificant in the total food budget of even the poorest family.

A highly inelastic demand exerts a powerful attraction on would-be monopolists. A group of Michigan salt producers once attempted to gain control of the entire salt-producing industry in this country. Their efforts were unsuccessful because they could not control the entry into the market of salt from abroad and from new production centers in this country. The consumer who is not protected by the existence of substitutes may be protected by the competition of rival producers.

**The role of complementarity.** Complementarity also influences the elasticity of demand. In general, consumers are less sensitive to changes in the prices of goods that are used jointly with other goods than they are to changes in the prices of goods that are used alone. The inelastic demand for salt is due, in part, to the fact that people do not "take it straight." The demand for lubricating oil for use in automobiles provides another illustration of the importance of complementarity. For example, even a 50 percent increase in the price of lubricating oil would mean only a small percent increase in the total cost of operating a car. Hence the demand for oil *for this use* tends to be quite inelastic. On the other hand, a 50 percent rise in the price of fuel oil would lead many householders to shift to coal or gas. A similar rise in the price of salt might affect the industrial and other demands for salt. Many of us would probably scrape the ice off our sidewalks instead of letting salt do the work. In these situations the existence of substitutes dominates the complementarity effect.

The same kind of reasoning explains why the demand for any *one* type of building trades labor will tend to be inelastic, much more inelastic than the demand for houses. This fact explains the strong bargaining position of each of the building trades labor groups.

### TIME AND ELASTICITY

It may be difficult for a consumer to turn to a substitute for a good immediately after an increase in the price of the good. However, when given time, the consumer may be able to replace coal with gas (or vice versa) as a heating fuel, or to give himself haircuts rather than rely on a barber. In the same way the firm confronted with a sharp increase in the price of one of the materials used in its product may be forced to maintain its purchases of the material for some time. Given time, however, to carry on research, redesign the product or the machinery used in making the product, and otherwise adjust to the price increase, the firm may be able to reduce its purchases of the material or even stop using it altogether.

In short, because substitution is a time-consuming process, the demand for a good is always less elastic in the short-run than in the long-run. The bricklayers who ask and receive an increase in wages may notice little immediate change in employment opportunities. However as consumers gradually substitute other materials for brick, the employment effect of the wage change becomes apparent. It is important for the student of economics to keep in mind this difference between short- and long-run elasticities of demand.

### DEMAND FACING THE FIRM UNDER COMPETITION

We are now in a position to describe the demand for a commodity as it is viewed by the manager of a firm selling under competitive conditions. The competitive conditions referred to here are those listed on page 68 of Chapter 6, in particular the conditions that the output consist of completely standardized units and that the number of firms in the industry is so large that a change in the output of any one firm cannot increase or decrease total output enough to cause a finite change in market price. Under such conditions each firm knows that it can sell as many units as it wishes at the going market price; that it cannot sell a single unit if it asks more than the going price; and that it takes an unnecessary loss on every unit it sells below the going price. This is the situation facing the individual growers of such crops as corn, wheat, and cotton, or the brokers who are dealing in the stocks and bonds of great corporations like General Motors or General Electric. In this kind of a situation the demand facing the individual firm is said to be *infinitely elastic*, and can be presented graphically as in Fig. 8-3.  $DD'$  is the demand curve confronting this particular firm. It is parallel

to the  $X$ -axis and at the height,  $P$ , which represents the market price.

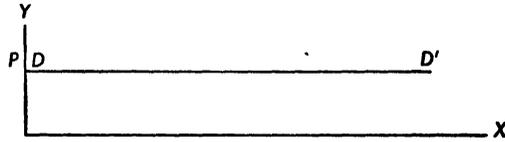


FIG. 8-3

The extreme sensitivity of consumers to price changes by individual firms in a large competitive market is due to the existence of substitutes. All bushels of wheat (of the same grade) are perfect substitutes for one another. Hence the demand for any one farmer's wheat must be infinitely elastic, despite the fact that the total or market demand for wheat probably has an elasticity of less than unity.

This assertion that market demand for the output of an industry can be relatively inelastic while the demand confronting each individual firm is infinitely elastic sounds paradoxical. A moment's reflection, however, will clear up the ambiguity. The fact that one firm in, say, 100,000 can increase its output without depressing market price does not mean that all or the majority of the firms can increase their outputs simultaneously without provoking a fall in price. If all or most of them increase their outputs, the demand confronting the individual firm will still be infinitely elastic, but at a lower price. In Fig. 8-3 the  $DD'$  curve would now be represented by a horizontal straight line closer to the  $X$ -axis.

The infinitely elastic demand diagram also reveals another significant fact. *The marginal revenue of the individual firm selling under competitive conditions is always the same as the market price.* Obviously if each additional unit can be sold at the prevailing price, then the increase in total revenue from the sale of an additional unit—and this is what marginal revenue means—must always be equal to the prevailing price. The firm's marginal revenue curve is identical with the demand curve confronting it. This equality between marginal revenue and price holds only for infinitely elastic demand curves.

In the next chapter we shall be concerned with the considerations that determine how much output a competitive firm will put on the market at various prices. Then, in a subsequent chapter, we shall show how the forces of supply and demand interact to determine the actual output and the actual price.



## Supply: The Laws of Production

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THE calls of the consumers have now been traced from the households to the firms. The nature of the call for a given good as it is seen by competitive firms has been identified. We turn now to a study of the responses of the firms to this call. These responses take the form of producing goods and services and offering them for sale. In other words, they represent the *supply* side of the famous pair, supply and demand.

**Supply defined.** *Individual supply* is defined as a schedule of the quantities of a good which a given seller stands ready to place on the market at a series of prices at a given moment of time. In a competitive market, *market supply* is a summation of the individual supply schedules. As in the case of demand, individual and market supply may be presented graphically in the form of supply curves.

**Supply illustrated.** The quantities shown in columns 2, 3, 4 and 5 in Table 9-1 are the quantities of a particular good that would be placed on the market by four sellers at each of five prices. Again, this is just a "sample" drawn from the full schedule;

TABLE 9-1  
QUANTITY OFFERED IN POUNDS PER MONTH

(1) Price per lb.	(2) Seller A	(3) Seller B	(4) Seller C	(5) Seller D	(6) Total Offered
\$2.00	100	50	80	200	430
1.00	70	20	70	100	260
.75	50	0	70	50	170
.50	20	0	70	0	90
.25	0	0	50	0	50

ule would show the quantities that would be offered at each of a great number of prices. The figures in column 6 represent the total number of units the four sellers would place on the market at each price. In other words, column 6 represents the market supply.

The significant thing to note in this table is the fact that the quantity *offered* (in contrast to the quantity *taken*) varies directly with the price. That is, the higher the price, the more units offered for sale, and vice versa. It also can be seen that some sellers are more sensitive to price changes than others. We shall have occasion to return to these characteristics of supply in later sections.

### BEHIND SUPPLY

We were able to identify the factors that lie behind demand; we must now attempt to do the same for supply. All of the factors lying behind supply can be summarized in the one word: *cost*. The quantity of a good that will be offered at a given price is determined by the cost to the seller of making it available.

**Cost.** Cost is another of the elusive concepts in economics. Cost to the economist is not necessarily the same thing as cost to the accountant or the businessman or the sociologist or the government policy maker. The economist defines cost and classifies the various types of cost in such a way as to permit him to explain the workings of an economic system. His definition should be judged on how well it contributes to this goal and not on whether it is consistent with other definitions of cost.

**Opportunity cost.** The economist's definition of cost is constructed in terms of opportunities foregone. The cost of doing any one thing is measured by what is lost in not doing something else. This is the meaning of "opportunity cost."

Adam Smith illustrated the principle of opportunity cost in the following way: A hunter can always bring back one deer from a day's hunting if he hunts in one direction from the village. He can always bring back two beaver from a day's hunting if he hunts in the other direction. What then is the cost of one deer? The answer: two beaver. What is the cost of one beaver? The answer: one-half deer. In the same way, in our modern economy, the cost of an automobile is the refrigerators, stoves, or other goods that could have been produced by the resources used to produce the car.

**Opportunity costs** cannot be measured directly in a complex, specialized economy. However, they are reflected in the prices that the firms must pay to secure resources. To obtain the resources to produce an automobile, the manufacturer must bid labor, steel,

and other resources away from the firms producing refrigerators, stoves, and so forth. The resulting prices of these resources are a measure of the opportunities foregone.

### BEHIND COST

The cost to a firm of producing a given quantity of output is determined by two factors: (1) the number of units of each type of resource required to produce that output and (2) the price it must pay for each unit of each type of resource. The first is related to resources as physical entities, and to production as a technological problem of combining inputs (resources) to produce outputs (goods and services). The second is related to resources as economic entities, and to production as an economic problem of minimizing the cost of any given output.

**Production as a technological problem.** Production involves the use of resources and techniques. In this sense it is a problem for the engineer and not the economist. This fact is so obvious that it has led to the suggestion that the running of our economy should be turned over exclusively to engineers and scientists. This was the recommendation of the brilliant but eccentric economist, Thorstein Veblen. This idea, under the title of Technocracy, was advanced as a cure for the depression of the 1930s. Unfortunately many of the decisions that must be made if the wishes of consumers are to prevail are beyond the competence of the engineer as such.

### PRODUCTION: CRUSOE MODEL

We shall start our study of production with an examination of the problems confronting Robinson Crusoe. This child of Defoe's fertile brain is the manager of the firm, the landlord, the capitalist, and the consumer all rolled into one. He has more wants than he can satisfy. He has to rank them and decide which he will try to satisfy and to what extent and in what way. He has to balance the disagreeableness of additional hours of labor against the agreeableness of additional food and creature comforts. As we guess at his decisions we shall discover certain important relationships which, though present, are easily lost sight of in our complex society. Only as we keep these relationships in mind can we grasp the design of modern capitalistic production.

**Durable consumer goods and tools require saving.** Let us start with the assumption that Crusoe can keep himself in good physical shape by working 6 hours a day. As long as he is content thus to limit his working hours, that is all he can have. But being an Eng-

lishman accustomed to the comforts and conveniences of life, mere subsistence is not enough. He decides to work 12 hours a day and get ahead in the world. Immediately he is forced to choose. Shall he gather more fruits and berries and snare more fish and grow fat or devote the additional 6 hours to building himself a crude shelter? Since the marginal utility of additional food is relatively low and the marginal utility of shelter is high, he decides in favor of the shelter. He builds himself a durable consumer good at the cost of leisure.

Once the cabin is built, another problem arises—the problem of drinking and cooking water. A spring of pure water is located on rising ground a quarter of a mile inland while the cabin is located close to the shore where he can command a view of the ocean—the direction from which help must come if he is ever to get back home. Since he is spending an hour a day carrying water to the cabin in hollow gourds, he decides to cut down some trees, split them lengthwise, hollow them out and build a trough or aqueduct that will provide him with an abundant supply of fresh cool water. He devotes 6 hours a day to the task and in 3 weeks it is done.

**Investment of time and effort also necessary.** The trough is a new tool—an enormous labor-saving device. Henceforth he need devote only 5 hours to food gathering. He has gained an hour which he can convert into leisure or expend in the production of further labor-saving devices. He elects to cut his workday to 11 hours and to devote 6 to fashioning himself a crude canoe and a paddle with which he can get out beyond the breakers where the fishing is better. With this job done he can now catch as many fish in an hour as previously he had in 3 hours. He has saved another 2 hours. Three hours of work a day now suffice to keep him physically fit. From now on he has a substantial surplus of time on his hands which he can use entirely for the further improvement of his dwelling, for making clothes, a comfortable bed, a chair, cooking utensils and other conveniences or for making more tools, for example a bow and arrows; or he can divide his surplus time between all of these and cut down his working day still further.

Day by day and week by week Crusoe plans his production and consumption program with a view to maximizing his satisfactions and minimizing his dissatisfactions. If he is a bit of a philosopher, or just plain lazy, his work week may be reduced rather rapidly. In that event, his material level of living will remain extraordinarily austere. If he is inventive, loves working with his hands and enjoys

creature comforts, his work week will remain long and his material level of living will continue to rise.

**Round-about methods of production.** Let us see now what lessons can be drawn from this Robinson Crusoe economics. The first is that labor, at least beyond some reasonable amount, is irksome. It was the comforts and conveniences which Crusoe conjured up in his mind that kept him at work from dawn to dark. Second, Crusoe discovered that the easiest and quickest way to produce the comforts and conveniences was to take out time to make tools. Crusoe, the food gatherer, had to get together enough food to take care of himself and Crusoe the tool maker. Had we started with Crusoe and his man Friday we might have assigned to Friday the task of food gathering and to Crusoe the task of tool making. Either way it is clear that tool making depends on the creation of a surplus—in this case, time—and the investment of this surplus in tool making.

**Capital goods or capital.** The economist calls these tools “capital,” or the products of past labor used for further production. Capital is productive in the sense that it enables a worker to turn out during the physical life of the tools more goods or services than without the tools; moreover, things which he could not make at all without the tools can now be made. We must, of course, account for the time required to make the tools. If a tool lasted only a few days and it took a long time to make it, Crusoe would have to do some very careful reckoning before deciding to make another.

The physical wearing out of the tool is part of the cost of producing the goods or services made with the aid of the tool. Modern business firms set up special accounts known as *amortization reserves* to take care of this physical wearing out of tools. In a money economy the reserve should be large enough to buy replacement tools at the appropriate time.

Crusoe may also be confronted with the problem of *obsolescence*. Thus it is quite likely that his first canoe will be a rather crude affair. As his condition improves he may decide to take time and fashion himself a lighter and better one, after which he throws the old one away or sets it aside as stand-by equipment against the chance of an accident to his new canoe. Thus the economic life of a tool may be much shorter than its physical life, and it is its economic life that really matters. *Obsolescence reserves* are used to protect firms from the losses resulting from the necessity of scrapping perfectly good tools simply because so much better ones have been invented that it would be wasteful to continue to use

the old ones. Needless to say, the economic life of a tool is much less predictable than its physical life.

### THE LAW OF DIMINISHING RETURNS

Whether on Crusoe's island or Manhattan Island, production involves the use of labor, land, and capital. These resources may be combined in different proportions. Which proportion to use in producing a given output is one of the decisions confronting the manager of the firm, whether he be Robinson Crusoe or the president of General Motors.

In making this decision, the manager of the firm encounters one of the underlying principles of economic activity, the law of non-proportional outputs, or, as it is more commonly known, *the law of diminishing returns*.<sup>1</sup> This law defines a relationship between inputs (resources) and outputs (goods and services), *with a given level of technology*. It states that, as an increasing number of units of one resource are applied to a fixed number of units of other resources, output first increases at an increasing rate, then at a diminishing rate, and eventually decreases absolutely. That point in the application of the variable resource beyond which output increases at a diminishing rate is known as the *point of diminishing returns*.

The assumption of an unchanging technology is an essential part of the law of diminishing returns. The law does not deny that progress in the technical arts may delay indefinitely the tendency to diminishing returns. However, at a given moment of time, the production plan of the firm must be constructed with the use of specific techniques of production. Once the plan is in operation, it cannot be revoked overnight; the buildings, machines, and tools cannot be revised each day to take account of changes in technological possibilities. In other words, the assumption of a given level of technology does not destroy the usefulness of the law of diminishing returns as an explanation of behavior in economic life.

All that is necessary to establish the validity of the law is to ask what the world would be like if it were not true. The world's food

<sup>1</sup> This law is usually associated with the early 19th-century economist, David Ricardo. Ricardo developed the relationship with land treated as the fixed input. Later economists demonstrated that the law holds whether the fixed input is land, labor, capital, or management. To emphasize the general applicability of the law, economists have identified it in such phrases as "the law of variable proportions" and "the law of nonproportional outputs," while reserving "the law of diminishing returns" to refer to cases in which land is the fixed input. While recognizing the greater precision of this usage, the authors will continue to use these three identifications interchangeably.

supply could be grown by simply adding increased "doses" of labor and capital to a few plots of ground. The total supply of any given manufactured good could be produced by simply adding larger and larger quantities of labor to one plant. Even a cursory inspection of the world about us is sufficient to establish the fact that production takes place under the constraint of diminishing returns.

*An illustration.* Let us create a small manufacturing plant producing some standardized product. The plant itself represents a fixed "bundle" of land, capital, and management. To this fixed input of resources is added successive units of the variable resource, labor. The resulting outputs are shown in column 2 of Table 9-2. The increase in output (*marginal product*) per unit increase in man power is shown in column 3. The output per man or *average product* is shown in column 4.

It can be seen that total output increases at an increasing rate through the point at which two men are employed. Beyond this point, output continues to increase but at a diminishing rate. This point, where two workers are hired and the total output is 12 units, is the point of diminishing marginal product, or diminishing re-

TABLE 9-2  
DIMINISHING RETURNS ILLUSTRATED

(1) No. of Workers	(2) Output per Day	(3) Marginal Product	(4) Average Product
0	0		0
1	5	5	5
2	12	7	6
3	18	6	6
4	23	5	5.75
5	26	3	5.20
6	27	1	4.50
7	25	-2	3.57

turns. The point at which three men are hired and the total output is 18 is the point of diminishing average product.

The point of diminishing marginal product should not be confused with the point of diminishing total product. It may pay this firm to hire three, four, five, or even six workers; it would never pay this firm to hire a seventh worker inasmuch as he would make a *negative* contribution to total output. So long as an extra worker makes a *positive* contribution to total output (so long as marginal product is positive rather than negative), it may pay the firm to hire the extra worker. In other words, the point of diminishing returns does not necessarily define the optimum rate of use of the variable resource. As a matter of fact, we shall find that the optimum rate of use of the variable factor usually lies *beyond* the point of diminishing returns but *short of* the point of diminishing total output.

**Graphic presentation of the law of nonproportional outputs.** The data in Table 9-2 are shown graphically in the accompanying diagram (Fig. 9-1). The graph pictures the relationship between the

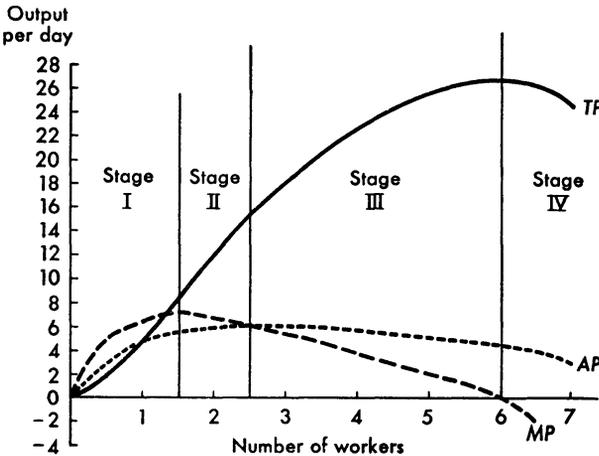


FIG. 9-1

output of the firm and the number of units of labor (the variable input) employed by the firm. The workers are assumed to be of equal quality and to be used in conjunction with a fixed plant, i.e., in conjunction with a given-sized “bundle” of land, capital, and management.

Inspection of the graph shows that the total output of the firm

(*TP*) increases as the amount of labor hired increases, until the addition of a seventh worker causes total output to decrease. It will be further noted that the use of, first, one and, then, two workers causes total output to increase at an increasing rate, i.e., the increase in output is more than in proportion to the increase in the number of workers hired. This stage in the expansion of output (often called *the stage of increasing returns*) is identified as Stage I in Fig. 9-1. During this stage *all three measures of output*—total, marginal, and average—are increasing.

In Stage II total output and average output continue to increase, but marginal product is decreasing. In other words, with this Stage the firm encounters diminishing marginal returns. Total output is still increasing but at a diminishing rate, i.e., the increase in output is less than proportionate to the increase in the variable input, labor.

In Stage III total output continues to increase, but now both marginal and average product are decreasing. The firm is encountering diminishing marginal *and* diminishing average returns as measured against the additional workers hired.

In Stage IV *all three measures of output* are decreasing. Clearly no firm would deliberately and voluntarily push its hiring of labor into Stage IV. Where, then, should the firm stop? What number of men should it employ? No precise answers can be given to these questions on the basis of the data presented here. We would have to know what the firm would have to pay in the way of wages for each additional worker hired and what it could expect to earn from the sale of the additional output. Lacking these data, all we can say is that the firm will try to balance extra revenues against extra costs in trying to determine the right-sized labor force.

We can say, of course, that the firm will get the most out of its labor, i.e., obtain the highest average product, if it hires three workers. But this does not help us. What the firm wants to do is get the most out of a combination of labor *and* the land, capital, and management which represent the fixed input. Only if these other resources were free goods would it be best for the firm to stop with the hiring of the third man. To get the most out of the combination of all of the resources used, the firm will normally be compelled to operate with a labor force and total output that places it somewhere in Stage III. This will become more obvious as we turn to the discussion of cost in the next chapter.

We selected labor as the variable resource in our illustration. This does not mean that labor is always the variable resource, and that land, capital, and management are always the fixed resources.

On the contrary, labor may be taken as the fixed resource, and land, capital, or management (or some combination of the three) may be taken as the variable input. The law holds whatever the variable and whatever the fixed resources.

**Management and the Law of Diminishing Returns.** We have recognized management as a special kind of labor, so special that it is separated as a resource class, coordinate with labor, land, and capital. If we treat management as the fixed and indivisible factor, and labor, land, and capital as variable factors, we find that the analysis of diminishing returns answers some very important questions. Why do the firms in some industries grow to such a size that only a few firms (or even just one firm) are needed to supply the total output? Why is even the largest firm in other industries still so small relative to the total market that it produces but a fraction of one percent of the total output?

If we treat management as the fixed and indivisible factor, we find that as more land, capital, and labor are gathered together under the direction of one man, output can be increased at first more than in proportion to the increase in the size of the "plant," then less than in proportion, and finally a stage is reached beyond which output actually declines. There are limits to what one man or one group of men can do. Even under an exceptionally able businessman, operations can get "too big." He is simply unable to make the innumerable decisions that have to be made promptly and wisely, and, what is no less important, he is unable to see to it that his decisions get executed with vigor and effectiveness. Improvements in the techniques of business organization and administration have pushed back the stage of diminishing returns to size of plant but have not eliminated diminishing returns as a restraint on the growth of the firm.

The stage of diminishing returns sets in much later under very able business executives than under mediocre ones. However, as more and more resources are placed under the control of the able executive, a stage is reached where additional resources could be better used by a mediocre but less-burdened executive. Here is probably the most important single reason why a single firm in an industry rarely absorbs all its competitors.

It should be recognized that technological and other forces may "overpower" this factor and produce industries in which one or a few firms supply the entire output. Whether the consumer is better or less well served under such an arrangement is a question which we shall attempt to answer in a later chapter.

*Questions:*

1. Define "opportunity costs"; give three examples, and explain how the market translates opportunity costs into dollars and cents costs.
2. Define the term *capital* and state just what Robinson Crusoe had to do to increase his supply of capital. If we exclude the possibility of borrowing from other societies, can a modern complex society increase its supply of capital in any other way?
3. "In some cases American grants to industrially underdeveloped countries to help them improve their productive capital appear to have been wasted (in the sense that they were very much less useful than they might have been), because the investment decisions were determined by engineering rather than economic considerations." Can you cite from knowledge or from general reasoning the kind of faulty decisions suggested by this statement?
4. "The extraordinary technological progress of the last 100 years shows that the so-called law of diminishing returns is a myth invented by reactionary economists to deter governments from taxing the wealthy to help the poor."
  - (a) State the law of diminishing returns; (b) defend or rebut the proposition that it is a myth; (c) if you regard it as a reality, illustrate its usefulness as a tool of economic analysis; and (d) indicate with supporting reasons whether there is any truth in the charge that acceptance of the reality of the "law" is likely to influence one's attitude toward income redistribution through taxation.
5. Argue for or against the correctness of the following statements:
  - (a) "The prospects of maintaining competition in a private enterprise society would be nil if the law of diminishing returns were not a reality."
  - (b) "The law of diminishing returns demonstrates that a society's resources will be used to the best advantage in the sense that output per capita will be maximized, if each firm employs labor up to and not beyond the point at which the marginal product of labor is at its maximum."

## *Supply: Costs of Production*

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IN THE preceding chapter we described certain relationships between the input of resources and the output of goods and services, summarized in the law of non-proportional outputs. This, the physical side of production, can be translated into money costs of production by assigning prices to the resources used. In this chapter, we shall take the production schedule developed in the preceding chapter and, by assigning prices to the resources used, transform it into a schedule showing the cost of producing each of the outputs. In the next chapter we shall take the final step of combining cost factors and demand and showing how these determine the responses of the firms to the calls of consumers.

### **SUPPLY OF RESOURCES TO THE FIRM**

The prices our firm must pay for resources will be determined by the market demands for and supplies of those resources. Because, by assumption, our firm is but one of many buyers of resources, it can purchase as many or as few units of each type of resource as it wishes without changing the "going" price for that type of resource. If the going rate for experienced punch-press operators is \$2.30 an hour, that is the price our firm will pay for its punch-press operators, whether it hires two or twenty. In the technical language of economics, the supply curve of a given type of resource facing the competitive firm is a straight line parallel to the X-axis at the level of the market price for the resource.

We are not concerned here with the total complex of forces that determines the price of each type of labor, of each type of capital, of each type of land. We are concerned only with the fact that the competitive firm, acting alone, can buy few or many of these resources without producing a finite change in their prices.

## SHORT-RUN COSTS

We are now ready to assign prices to resources and thus transform production data into cost data. Before we do so it would be well to identify the nature of the cost pattern to be described. The firm under study has already committed itself to a plant of a given size, that is, to a fixed "bundle" of resources in the form of land, buildings, machinery, top management, etc. This bundle represents the *fixed input* of the firm, in the sense that it will remain unchanged throughout this section of our investigation into costs. The *variable input* is labor and the added raw materials with which each laborer must be supplied. The question we will be asking is this: "What will it cost this firm to produce various quantities of output when it is free to vary only the amount of labor and raw materials used with its fixed plant?"

The answer to this question will be a schedule of costs that may be identified as the *short-run cost schedule* of the firm. The short-run is defined as a period of time long enough to permit the firm to vary its rate of use of some but not all resources. The long-run is defined as a period of time long enough to permit the firm to vary its rate of use of all resources. We shall turn to the long-run cost schedule of the firm in the second part of this chapter.

**The firm's costs.** In the short-run, the firm employs a combination of fixed and variable inputs; corresponding to these types of inputs are two types of costs: overhead or *fixed costs* and *variable costs*. Total overhead costs do not vary with output; total variable costs do. *Total overhead cost* per time period is the sum of the costs of the fixed inputs—the land, buildings, machinery, top management, etc.

Particular attention should be given to the fact that the economist includes a payment to management as part of the overhead cost of the firm. This payment includes more than just the salaries of the top executives. In a modern corporation it includes a payment to the common stockholders, the basic decision-making group in the corporation, equal to what they could have earned had they put their resources into the best alternative uses. The accountant does not treat payments to common stockholders or returns to partners and proprietors on their equity capital as part of the "costs" of the firm; the economist does. The logic of the economist's position (in terms of his purposes) will be made clear when "profits" and "losses" are defined in the next chapter.

*Total variable cost* is equal to the sum of the expenditures per

time period on variable inputs, such as labor and raw materials. *Total cost* is the sum of total fixed and total variable costs. Fixed, variable, and total costs may be expressed as totals or as costs per unit of output. The *average fixed cost* at a given rate of output is equal to total fixed cost divided by the output. *Average variable cost* at a given rate of output is equal to total variable cost at that output divided by output. *Average total cost* at a given rate of output is equal to the sum of the average fixed and average variable costs at that output; or it can be found by dividing total cost by the output.

Of particular interest to the economist is marginal cost. *Marginal cost* is the *additional* cost of producing one more unit of output. The marginal cost between any two outputs can be found by dividing the increase in total cost (or total variable cost, since changes in total cost can come only through changes in total variable cost) by the increase in output. (The mathematical symbol  $\Delta$  is used to indicate an increment or addition; thus,  $\Delta TC$  should be read as "the increase in total cost.") Obviously, if the increase in output is one unit, marginal cost can be measured directly by the increase in total cost or total variable cost.

The abbreviations, *TVC*, *TFC*, *TC*, *AFC*, *AVC*, *ATC*, and *MC*, are frequently used to represent respectively, total variable cost, total fixed cost, total cost, average fixed cost, average variable cost, average total cost, and marginal cost.

**An illustration.** Table 10-1 presents the short-run cost pattern of the firm whose production data were given in Table 9-2 of the preceding chapter. Labor and the added raw materials with which each laborer must be supplied are assumed to be the only variable input used and are assigned a price of \$10 a day. The total fixed costs are assumed to be \$50 a day. All of the other costs can be developed from these figures and from the production data, in the manner indicated in the heading of each column.

Thus at a rate of output of 18 units per day, total variable cost is \$30 (the daily wage of 3 workers). Total cost at this output is \$80 (\$30 of variable costs plus \$50 of fixed cost). Average variable cost at this output is obtained by dividing total variable cost (30) by the rate of output (18), which yields \$1.67. Similarly the average fixed cost of \$2.78 is obtained by dividing total fixed cost (\$50) by the output (18). The average total cost of \$4.45 is the sum of variable cost (\$1.67) and average fixed cost (\$2.78). This same figure (give or take a penny, because of rounding errors) can be obtained by dividing total cost (\$80) by output (18). Marginal

TABLE 10-1  
SHORT-RUN COSTS OF THE FIRM

(1) No. of Workers	(2) Output per Day	(3) Marginal Product	(4) Average Product $(2) \div (1)$	(5) TVC $(1) \times \$10$	(6) TC $(5) + \$50$	(7) AVC $(5) \div (2)$	(8) AFC $\$50 \div (2)$	(9) ATC $(7) + (8)$ $(6) \div (2)$	(10) MC $\Delta TC \div (3)$
0	0			0	\$50				
1	5	5	5	\$10	60	\$2.00	\$10.00	\$12.00	\$2.00
2	12	7	6	20	70	1.67	4.17	5.83	1.43
3	18	6	6	30	80	1.67	2.78	4.45	1.67
4	23	5	5.75	40	90	1.74	2.17	3.91	2.00
5	26	3	5.20	50	100	1.92	1.92	3.84	3.33
6	27	1	4.50	60	110	2.22	1.85	4.07	10.00

cost at a rate of output of 18 is found by dividing the \$10 increase in total cost (\$80 — \$70) by the increase in output (18 — 12) of 6.

It can be observed that average fixed cost decreases as output is increased; this is the familiar result of "spreading the overhead over more units." Average variable cost first decreases and then increases as output is increased. These stages in average variable cost correspond to the stages of first increasing, then decreasing, average product. Average variable cost is at a minimum where average product is at a maximum. In other words, at that rate of output where the firm is getting the most out of its variable resources, its variable costs are the lowest.

Average total cost also decreases and then increases as output is increased from zero. In the early stages, both average fixed and average variable cost are decreasing. Hence, average total cost must fall. When average variable cost starts increasing (as the law of diminishing returns, or variable proportions, tells us it must), the resulting upward pull on average total cost is at first more than offset by the continued decrease in average fixed cost. Eventually, however, the upward pull of increasing average variable cost overcomes the downward pull of decreasing average fixed cost and average total cost begins to increase.

Marginal cost can be seen to decrease and then increase as output is increased from zero. It reaches its minimum at that rate of output where marginal product is a maximum. In other words, the greater the addition to total output resulting from the use of one more man, the less the extra or marginal cost of producing an added unit.

**Graphic presentation.** Cost data, like demand data, can be presented graphically. Figure 10-1 presents the four short-run cost curves as they would appear if taken from a more complete cost schedule than the one presented in Table 10-1.

The curves give a visual picture of the way a firm's costs per unit of product change with every change in its output. The *AFC* curve falls throughout. (It has the shape of a rectangular hyperbola.) The *AVC* curve depicts the effects of variations of output on average variable costs. It shows that this average falls for a time and then begins to rise. The upper curve, marked *ATC* on the diagram, is the average total unit cost curve.  $L_v$  is the low point on the *AVC* curve;  $L_t$  is the corresponding point on the *ATC* curve.  $L_t$  necessarily lies to the right of  $L_v$  since average fixed costs are still falling more rapidly than average variable costs are rising in the range of

output involved. At output  $L_t$ , the downward pull of average fixed costs are exactly offset by the upward pull of rising variable costs.

It will be noted that the marginal cost curve cuts both the average variable cost and the average total cost curves at their lowest points. This is not just coincidence. So long as marginal cost is less than either of these costs, it exerts a downward pull on the average; so long as marginal cost is greater than either of these costs, it exerts an upward pull on the average. Consequently marginal cost must be equal to average variable cost where average variable cost is at a minimum, and must be equal to average total cost where it is at a minimum. We shall find that these relationships are of more than geometric importance.

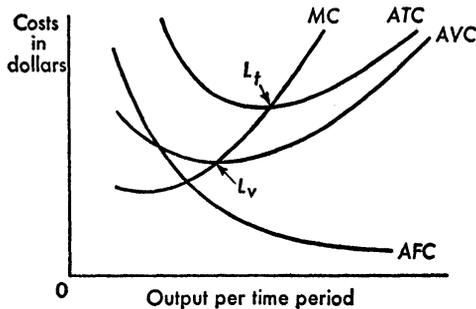


FIG. 10-1

Cost curves plotted from actual operating data (if such were available) would not necessarily display the same eye-pleasing symmetry of the curves in Fig. 10-1. For example, it is entirely possible that the average variable, average total, and marginal cost curves would all be "flat-bottomed" curves, that is, would show little change in the level of cost over a wide range of intermediate outputs. However, the curves would still bear the same relationship to one another as that pictured in Fig. 10-1.

### LONG-RUN COSTS

Up to this point, we have permitted the firm to vary only its rate of use of labor and raw materials, not the size of its plant. Because this is a limitation facing actual firms in most of their day-to-day decisions, our findings will be of great assistance to us in explaining behavior in an enterprise economy.

However, when given time to make changes, firms may decide to increase or reduce the size of their plants. Also, at the planning

stage, before capital is committed to plant and equipment, the manager of the firm is free to select the size of plant he wishes. This is a very important decision. It may affect the profitability of the firm for many years to come. What considerations should guide the manager? His decision is most likely to be correct if he works out with his engineers and accountants estimates of the fixed and variable cost schedules for plants of various sizes. For each plant size there will be a lowest *ATC* figure. For the manager of a firm operating in a purely competitive market, the only proper decision is to settle on the plant size that yields the lowest *ATC*, since by definition he can sell his entire output at market price, regardless of the size of plant.<sup>1</sup>

**A graphic illustration.** The curves shown in Fig. 10-2 may help visualize the problem of determining the proper size of plant.

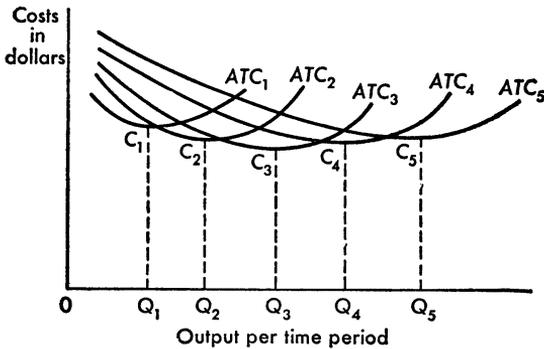


FIG. 10-2

The curves designated  $ATC_1, ATC_2, \dots, ATC_5$  show how average total costs will vary from very small to very large outputs for plants of five different sizes. The  $ATC_1$  plant has the smallest amount of capital tied up in land, buildings, machinery, etc.; the  $ATC_5$  plant has the largest amount. An examination of the five curves shows that the larger the plant, the longer the range of output over which the firm will encounter increasing returns on its variable costs, and the larger the output at which *ATC* will be at a minimum. The important consideration, however, is not the size of the output at which *ATC* will be at a minimum; rather it is the size of the plant

<sup>1</sup> For the management of a firm operating in a noncompetitive market the decision is more complicated. As will be shown later, account must also be taken of the effect of plant size and output on market price. In this chapter the analysis is based on the assumption that the firms are operating under conditions of pure competition.

which yields the lowest possible minimum  $ATC$ . In this particular case it is the  $ATC_3$  plant size that yields this result. This is said to be the *optimum-sized plant* for this particular management. When a plant of optimum size is operating at the scale at which its  $ATC$  is at its minimum, the plant is said to be operating at *normal capacity*.  $OQ_3$  represents the normal capacity of the  $ATC_3$  plant and  $Q_3C_3$  is its *long-run normal cost of production*. We shall show in the next chapter how competition tends to force all purely competitive firms to operate at normal capacity. But we shall also show why, in the short-run, it may be more profitable for a firm to operate at less or at more than normal capacity.

Does this mean that the optimum size of all firms in a given industry will be of the same size? The answer is, "no." The appropriate size of plant for a less efficient management will be smaller than for a more efficient management. Will the larger and more efficiently managed firms drive out the smaller and less efficiently managed firms? Here the answer is, "probably not." And the reason for this is that the firms that command managements of exceptional ability have to pay for these abilities in the form of higher salaries and managerial earnings. We shall have more to say about these managerial earnings in the discussion of wages in Chapter 15. Here it suffices to point out that economic theory explains what experience shows to be true: that firms of very different physical sizes can compete indefinitely against one another in the same market, without the big ones having any marked advantage over their smaller rivals. More of the output will be produced by the bigger and more efficiently managed firms—just as the consumer would wish—but the smaller, less efficiently managed firms will continue to operate.

**Return to scale of plant.** Inspection of the curves in Fig. 10-2 shows that the minimum  $ATC$  first decreases and then increases as the size of plant is increased. Thus  $C_2$  is closer to the  $X$ -axis than  $C_1$ , and  $C_3$  is still closer; but beyond  $C_3$  the minimum  $ATC$ 's begin to rise. If we connect these points,  $C_1, C_2, C_3, C_4, C_5$ , we get what is known as a firm's *long-run cost schedule*, or its *planning curve*. It declines, reaches a minimum, and then rises. The first stage is described as the stage of *increasing returns to scale* of plant. The second stage is described as the stage of *decreasing returns to scale* of plant. If minimum  $ATC$  were constant through a range of plant sizes, the situation would be described as one of *constant returns to scale* of plant.

The explanation for increasing returns to scale of plant is usually found in technological factors, the larger plants being able to use

more efficient machines and techniques than the smaller plants. In the modern steel industry, a very small plant would be forced to use very primitive techniques for processing ore and for its other operations, and its unit costs of production would be correspondingly high.

The explanation of decreasing returns to scale is usually found in the management factors referred to on p. 103. As the plant grows larger, it eventually reaches a size where increased technical efficiencies are more than offset by losses in the efficiency with which the unit can be managed. It is these management factors that eventually place a ceiling on the growth of the firm.

Constant returns to scale are usually found in a range of plant sizes where technological gains from increased size are just balanced by losses in management efficiency. As the plant size is increased beyond this range, diminishing returns to scale of plant are usually encountered.

**Significance of returns to scale.** Some of the most important questions in economic policy are related to returns to scale. For example, what if the optimum-sized plant in a given industry is a plant of enormous size? Doesn't this destroy the possibility of competitive behavior?

The answer to this question is, "not necessarily." If the market is very large (perhaps, a world-wide market), even the very large firm may be small relative to the market in which it operates. (This is one of the reasons that economists consistently press for a widening of markets through a lowering of tariffs and other barriers to world trade.) Also, as we shall see, the rivalry among a number of large firms, a rivalry that takes many forms, may provide the consumer with more goods at lower cost than would be true if the product were produced by a great number of small firms.

But if the large firm is in a position to exploit the consumer, what then? Can it be broken up without a great sacrifice of technical efficiency? The answer here depends in part on a careful distinction between "plant" and "firm." The large firm possessed of almost monopoly power may be just a collection of a great number of plants, each of approximately optimum size. It may be that the *firm* could be broken up into a number of firms, each controlling one operating unit, without any great sacrifice of technical efficiency.

However, we would do well to delay a final answer to this question until we have completed our survey of market behavior. Without pressing the topic further at this time, it should be clear that

the concept of returns to scale is one of considerable practical significance.

*Questions:*

1. Distinguish between fixed costs and variable costs as the terms are used by economists and identify expense items which the economist would include and the accountant would exclude from fixed costs.
2. Define marginal cost; indicate at what point the marginal cost curve cuts the average variable cost curve and the average total cost curve and why it must cut them at these points.
3. Explain why the economist regards as particularly significant the behavior of marginal costs.
4. Define the terms "optimum size" and "normal capacity" and state which of the following costs will be at a minimum when a firm of optimum size is operating at normal capacity: *ATC*; *AVC*; *AFC*; *MC*.
5. Argue for or against the correctness (from a strictly economic point of view) of each of the following propositions:
  - (a) "The management of a plant of optimum size should always operate at normal capacity if it is to maximize the profits of the owners."
  - (b) "The private enterprise system would serve the public better if the managers of all the firms continuously adjusted their production schedules so that their average costs (which include a reasonable return on investment) just equaled market price."
  - (c) "In view of the fact that practically every industry is made up of firms of very different sizes it is obvious nonsense for economists to say that all of the firms may nonetheless have the same average total costs."

# *Demand and Supply Under Competition: Concepts of Equilibrium*

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THE purpose of this chapter is to show how firms react to market prices that are higher or lower than their minimum average total costs, and how these reactions tend to bring resources into the uses desired by consumers. These reactions are motivated by the desire for profits and the fear of losses. The first step is to define the terms "profits" and "losses," as they will be used in the analysis to follow.

## PROFITS AND LOSSES

During an accounting period a firm realizes revenues from the sale of output and incurs costs associated with the production of the output. The difference may be positive, or negative, or zero. If positive, it represents profits; if negative, losses. If the total revenues just equal the total costs, the firm realizes neither profits nor losses.

It is important to note here that the economist does not use these terms in the same sense as does the accountant or the businessman. The economist includes in total costs a return to management equal to what the management resources could have earned in the best alternative use. Thus profits, as defined here, represent a return to management *over and above what is needed to keep the management resources in the industry*. Losses represent a return to management below what is needed to keep the management resources in the industry.

To illustrate: suppose that the total revenues of a firm are \$100,-

000 a year and its total costs, *exclusive of a return to management*, are \$80,000. The accountant would report a profit of \$20,000. The economist would first ask what the management resources could have earned in the best alternative use open to them. If this was \$15,000, the economist would add this to the \$80,000 of costs, as reported by the accountant, and say that the profits were only \$5,000. If, on the other hand, the management resources could have earned \$30,000 in the best alternative use, the economist would say that the firm's total costs for the year were \$110,000, and that the firm had suffered a loss of \$10,000, and not the \$20,000 profit reported by the accountant.

In the preceding paragraphs the phrase "management resources" has been used several times. Involved are the salaries the management might have earned in the best alternative uses, and the interest the management might have received on its own capital had the capital been invested outside the firm.

The justification for this "unorthodox" way of defining profits and losses is that it provides a means of predicting the direction of movement of firms and resources simply by identifying the lines of industry where profits are being made and those where losses are being taken. The movement of firms (and of resources) is determined by the relative profitability of different lines of production. Profits as defined by the accountant provide a very imperfect clue to relative profitability; profits and losses, as defined by the economist, are direct measures of relative profitability.

### ADJUSTMENT AND TIME

Firms react to profits and losses, but these reactions take time. The reactions follow a general sequence which can be divided into three rather definite stages for purposes of analysis. These three stages are identified in terms of the type and the extent of the reactions which are possible in each stage. The first is called the instant-of-time or *the immediate-run period*. It is a period of time too short to permit the firm to alter its production schedule. The reaction of the firm is limited to changing the amount of already produced goods which it will place on the market.

The second is called *the short-run period*. It is a period of time long enough to permit the firm to change its rate of use of some but not of all of its resources. The reaction of the firm can take the form of increasing or reducing output by hiring more or less labor and buying more or less raw materials. The adjustment cannot take the

form of increasing or decreasing the size of the plant or of changing from one line of production to another.

The third is called *the long-run period*. It is a period of time long enough to permit the firm to vary its rate of use of *all* resources. The reaction of the firm can take the form of changing from one line of production to another, or of increasing or decreasing the size of its plant, or of moving its operations from one place to another.

The actual length of each of these time periods varies from firm to firm and from industry to industry. The time required to bring new firms into the corner shoe-shine industry is very short, a matter of days. It takes more than \$30,000,000 and close to two years to build a continuous strip rolling mill in the steel industry.

When each firm in a given industry has completed all of the adjustments possible in any one of the three stages, the firms and the industry are said to be *in equilibrium for that stage*. This concept permits us to identify three types of equilibrium for a given industry: *immediate-run equilibrium*, *short-run equilibrium*, and *long-run equilibrium*. Finally we shall identify a situation in which all of the firms in all of the industries are in long-run equilibrium, a situation to be known as *general equilibrium*.

### THE ADJUSTMENT PROCESS IN THE IMMEDIATE-RUN

By definition the immediate-run is a period too short to permit firms to alter their production schedules. The quantity of output per time period is a constant; the only freedom left to the firms is the freedom of withholding some or all of the output from the market—and even this freedom is very limited if the product is highly perishable or if the firms are desperately short of cash.

In effect we are concerned here with the forces that determine the market price of goods already produced. Costs have been incurred, but they lie in the past. Consequently they cannot be determining. In the immediate-run period, market demand is the force to be watched.

The analysis in this section will be made first on the assumption that the firms place *all* of a stock of previously produced goods on the market for whatever price it will bring; and then on the more realistic assumption that at least some of the firms will withhold part of their stocks in anticipation of a better price in the near future.

**Completely inelastic supply.** If the firms will put all of their existing outputs on the market regardless of price, the situation can be described as one of completely inelastic supply; that is, suppliers

are completely insensitive to price changes. The supply curve for the product will be a straight line perpendicular to the  $X$ -axis at the fixed quantity being produced.

The only requirement for equilibrium in this case is that the price clear the market, that is, that the price be such that the quantity

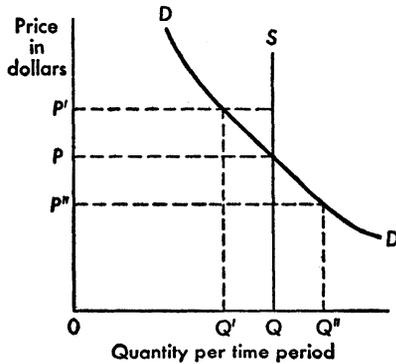


FIG. 11-1

demanded be equal to the quantity supplied. Thus in Fig. 11-1 the equilibrium price would be  $OP$ . At the higher price,  $OP'$ , the quantity offered for sale, the fixed stock,  $OQ$ , exceeds the quantity demanded,  $OQ'$ , by the amount  $Q'Q$ . This surplus of unsold goods will press on the market and bring the price down to  $OP$ . At a lower price,  $OP''$ , the opposite happens. The quantity available,  $OQ$ , is less than the quantity demanded,  $OQ''$ .

The unsatisfied buyers who are willing to pay more than  $OP''$  will

bid the price up to  $OP$ . Only at the price  $OP$  is the market cleared; this is the price that will come to prevail in a purely competitive market in which suppliers prefer to sell at any price rather than hold output off the market.

*Some applications.* The foregoing analysis demonstrates that a shortage or a surplus of a given commodity can be created by the simple act of fixing a price that is either below or above the equilibrium or market-clearing price. The shortage of consumer goods during World War II, as the term "shortage" is used in economics, resulted from the price control program which set the prices of most goods below the prices that would have cleared the markets. For each commodity there were more buyers than sellers and the goods had to be "rationed." The advantages and the disadvantages of physical or formula rationing as against free price rationing will be discussed later.

The high minimum prices guaranteed various farm products under our present federal farm program have created surpluses which the Federal Government has had to buy and dispose of at a loss. This method of aiding the farmer will be examined in some detail in a later chapter. Here it suffices to note that "shortages" and "surpluses" cannot exist in competitive markets. Prices, being free to

move, will be brought to whatever level is necessary to clear the market.

**Reservation prices.** Even in the immediate-run period most firms have a limit, or reservation price, below which they will not release additional units from their inventories of goods on hand. A small farmer, for example, may prefer to let his family eat all the eggs laid by his chickens, if the market price goes below a certain figure. As the price rises he will sell more and more and allow fewer to appear on his table. A manufacturer of shoes may behave in much the same way despite the fact that he himself has no use for the shoes. Only in his case he will be influenced by (a) his need for funds and (b) his judgment as to the future price of shoes. If he is convinced that future prices will be higher than present prices, and if he can afford to wait, he may refuse to sell any shoes whatever; if he continues to produce it will be "for inventory." If, on the other hand, he has pressing liabilities and lacks cash he may reduce his normal inventory by selling more shoes than he currently produces until his immediate need for cash has been met. After this only a rise in market price will induce him to sell. In general, if future prices are expected to be lower than present prices a firm's reservation price will tend to approach zero; conversely, the expectation of higher prices raises reservation prices.

The concept of a rising series of subjective valuations (reservation prices) at which a firm will be induced to part with larger and larger portions of a stock of goods already produced but not yet sold necessitates a slight revision of our concept of supply as being absolutely fixed in the immediate present. Complete fixity of supply implies a zero reservation price. This is seldom met with in the real world. Even though the physical supplies of commodities are fixed at any given instant of time, the amount that will be offered for sale depends on the prices buyers are willing to offer and the reservation prices of the suppliers.

The diagram (Fig. 11-2) provides a better picture of reality

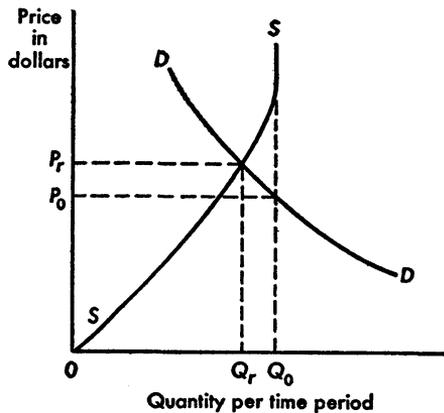


FIG. 11-2

than does Fig. 11-2. As before, the quantity of goods in the hands of sellers ( $Q_0$ ) is fixed, but the amount which they will release depends on price. Consequently the supply curve is not a line rising vertically from  $Q_0$  but rather a curve which slopes upward and to the right from 0. Each point on the curve shows the quantity that would be released at a specified price. The market price will be determined by the point at which the demand curve intersects this supply curve. It is the price  $P$ , and not the price  $P_0$ . The lower price would prevail only in the event that all the sellers had zero reservation prices.

**Profits and losses in immediate-run equilibrium.** It is apparent that even in this time period the market price of a commodity depends upon demand *and* supply, and not upon demand alone. But it is also apparent that it is not the past costs of producing commodities that determine their prices, except as these past costs influence the reservation prices of the firms.

The price which clears the market in the immediate-run period may be well above the average total costs of the firms in the industry. In this case the firms will make profits. But it may also be well below the minimum average total costs of the firms. It may be so low that the firms cannot even recover their variable (out-of-pocket) expenses. In either of these two events the firms will have to take losses.

Neither profits nor losses can influence the behavior of the firms in the immediate-run period, because, by definition, they do not have time to make adjustments in the scale of their operations, to say nothing of the size of their plants. We turn next to the adjustments that firms can make in the short-run when they do have time to complete limited reactions to the profit-and-loss situations confronting them.

### THE ADJUSTMENT PROCESS IN THE SHORT-RUN

In the short-run period a firm cannot change the size of its plant and fixed equipment, but it can alter its scale of operations. It can operate at less than or more than "normal capacity." The question which confronts the management is this: Given the market price and given present plant and equipment, at what rate of output will profits be maximized or losses minimized?

Common sense would indicate that the firm should produce an extra unit of output per time period, if that unit adds more to the revenues of the firm than it adds to the costs of the firm. In the same way the firm should reduce output if the last unit produced

adds less to revenues than it does to cost. From this it follows that if the last unit produced adds neither more nor less to total revenues than it does to total costs, the firm should leave output unchanged.

The firm that has so adjusted its output is said to be in *short-run equilibrium*. In the technical language of economics the firm has settled upon the scale of output at which marginal cost equals marginal revenue. This is simply a short way of saying that in the short-run a firm will maximize its profits or minimize its losses, if it produces up to the point at which the addition to total cost as a result of producing one more unit equals the addition to total revenue as a result of selling one more unit. This test for determining the short-run equilibrium position of the firm holds true whether the firm is selling in a purely competitive market or in any one of the market situations characterized in Chapter 6 as “noncompetitive.”

In purely competitive markets marginal revenue equals market price. It follows that for firms operating in such markets, and only for such firms, the short-run equilibrium position is realized when marginal cost equals market price.

It is important to note that a firm that is in short-run equilibrium is not necessarily covering all of its costs. If the price is below minimum average total cost it will be losing money. Nevertheless it will pay the firm to continue operating at this scale if the price covers its out-of-pocket or variable expenses. If the price will not cover variable expenses, the firm will lose less by closing down than by continuing to operate. This relationship between marginal cost and marginal revenue provides us with what we shall call “the equilibrium rule.”

*The equilibrium rule illustrated.* The data in Table 10-1 represent the costs confronting a firm with a given plant. The total fixed costs of the firm are \$15 a day. If the market price is \$11.00, the equilibrium rule indicates that the firm should operate at the rate of 10 units of output per day, the rate of output at which marginal cost is also \$11.00.

The profit or loss position of the firm at this output is measured by the difference between total revenue \$110 ( $\$11 \times 10$ ) and the total cost (\$101.00). The firm is making a profit of \$9.00 a day. A few computations would prove that, given a price of \$11.00 and given the firm's cost schedule, \$9.00 is the largest profit figure attainable.

If the market price were \$9.00, the equilibrium rule shows that

the firm should operate at 8 units of output per day, the rate of output at which marginal cost is also \$9.00, despite the fact that it would be losing \$8.00 a day, the difference between total costs of \$80 and total revenue of \$72.00. However, it would lose \$15.00 a day (the total of its fixed costs), if it shut down. Hence, it would pay the firm to continue operating in the short-run. A few computations will again prove the validity of the equilibrium rule: given a market price of \$9.00, and given the cost schedule of the firm, \$8.00 a day is the lowest loss figure attainable.

If the market price were to fall to \$7.00, it can be demonstrated that the firm would lose less money by closing down than by operating. This is because \$7.00 is below the firm's lowest possible average variable cost figure. There is no rate of output at which \$7.00 will even cover the firm's out-of-pocket expenses. For example, if the firm were to produce 6 units a day it would cover its marginal cost, but it would lose \$21.00 a day. By closing down it can cut its loss to \$15.00 a day.

At a market price of \$10.00, the firm should produce 9 units a day. Total revenue in this case would be  $\$10.00 \times 9$  or \$90.00; total

TABLE 11-1  
SHORT-RUN COSTS

Output per Day	Total Cost	Total Variable Cost	Average Variable Cost	Average Total Cost	Marginal Cost
					\$6.00
3	\$45.00	\$30.00	\$10.00	\$15.00	5.00
4	50.00	35.00	8.75	12.50	6.00
5	56.00	41.00	8.20	11.20	7.00
6	63.00	48.00	8.00	10.50	8.00
7	71.00	56.00	8.00	10.14	9.00
8	80.00	65.00	8.13	10.00	10.00
9	90.00	75.00	8.33	10.10	11.00
10	101.00	86.00	8.60		

costs would also be \$90.00. Profits and losses would be zero. This is the firm's long-run equilibrium position, given its existing cost schedule; an output of 9 units per day is its normal capacity at this scale.

**Short-run equilibrium of the industry.** As *all* of the firms in a given industry proceed with their short-run adjustments the output of the industry will change. The industry output will increase if the firms are expanding outputs and will decrease if the firms are decreasing outputs. These changes in the output of the industry will cause the market price to change. It will fall if the industry output is expanding, and will rise if the industry output is decreasing.

Eventually, however, the adjustments in market price and in the outputs of the firms will bring the industry to its short-run equilibrium position. The market price will just clear the market of goods and each firm will be operating at that rate of output where marginal cost is equal to market price. The firms in the industry will then have answered the call of the consumers as well as it is possible for them to do so within the limits of their fixed plants. But the responses will still be incomplete. If the firms are making profits in the short-run, it is a sign that consumers are calling for more "fixed" resources in the industry—for more buildings, machinery, etc., to be used in the production of the commodity. If the firms are taking losses in the short-run, it is a sign that consumers want some of the "fixed" resources transferred to other uses.

### THE ADJUSTMENT PROCESS IN THE LONG-RUN

The adjustments undertaken by firms in the long-run can best be understood in terms of the definitions of profits and losses. Profits represent a return to management resources over and above what is needed to keep them in the industry. Losses indicate that the return to management resources is less than what would be needed to keep them in the industry.

The function of the more-than-adequate returns, or profits, is to "lure" more resources into the industry. The transfer of resources takes the form of new firms entering the industry and of existing firms expanding their plants (if they are not already of optimum size). During the long-run adjustment period, resources continue to flow into the industry so long as they can earn more in this industry than in others—and the existence of profits in the industry is proof that such is the case.

The function of losses is to "drive" resources out of the industry. The transfer of resources takes the form of firms leaving the in-

dustry or reducing the size of their plants (if they are beyond their optimum size). Resources continue to flow out of the industry so long as they can earn more in other uses—and the existence of losses in the industry is proof that such is the case.

The entry of new firms into a profitable industry leads to an expansion of output. This, in turn, leads to a fall in price. As the price comes down, profits shrink and eventually disappear. The exit of firms from an unprofitable industry leads to a reduced output. This, in turn, leads to an increase in price. As the price rises, losses shrink and eventually disappear. In other words, profits and losses disappear once they have accomplished their purpose of inducing firms to follow the wishes of consumers.

**Long-run equilibrium.** The directives of consumers have been followed to the letter once the industry has reached long-run equilibrium. Long-run equilibrium for a given industry is a situation in which each plant has attained its optimum size and is operating at normal capacity; the market price just clears the market and just covers the minimum average total costs of the firms in the industry. Once this position has been reached, there no longer exists any incentive for new firms to enter the industry or for existing firms to leave. Consumer satisfactions would be reduced if either more or fewer resources were employed in the industry.

**The adjustment process illustrated graphically.** The process by which an industry reaches this long-run equilibrium position is illustrated diagrammatically in Fig. 11-3.

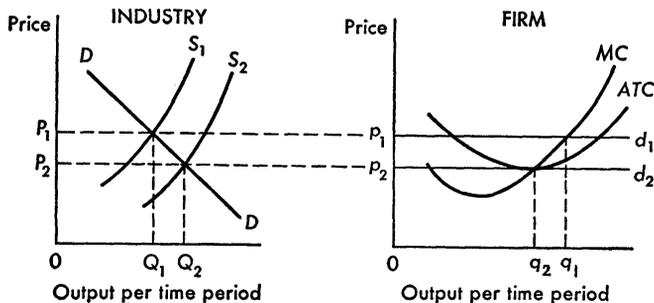


FIG. 11-3

The solid  $S_1$  curve in the diagram on the left is the industry supply curve. It is based on a given number of firms in the industry and on a given cost pattern confronting each firm. It tells us how many units the industry as a whole will supply at each of various

prices *after* the firms have completed their short-run adjustments to that price. In other words, it is the short-run supply curve of the industry. The upward slope of the curve reflects the fact that the firms making up the industry cannot increase their outputs without running into rising marginal costs. If consumers want more outputs from these firms they must pay enough to cover the rising marginal costs.

The downward sloping  $D$  curve represents the market demand for the product. The prevailing market price is  $OP_1$ ; it equates the quantity supplied and the quantity demanded, that is, it clears the market. The number of units exchanged is  $OQ_1$ .

The diagram on the right (Fig. 11-3) shows us the situation confronting a typical firm in the industry. The horizontal straight line  $d_1$  represents the demand curve confronting the firm; since we assume pure competition, it is drawn at the level of the market price. The output of the firm is  $oq_1$ , the output at which price is equal to marginal cost. At this output the price is greater than the average total cost; hence, the firm is making profits, as are the other firms in the industry. The existence of profits establishes the fact that this is a short-run equilibrium and not a long-run equilibrium situation.

These profits cannot provoke any further expansion of output from the existing firms, since the firms are already operating where price is equal to marginal cost. Consumers must look for relief to the entry of new firms into the industry. (To simplify the exposition we shall assume that each firm has attained its optimum size; hence, adjustments can come only through the entry of new firms.)

As new firms enter the industry, attracted by its profitability, the industry supply increases. At any given price, more is now offered for sale than before. These continuing increases in supply would be represented graphically by a series of new short-run supply curves, each lying further to the right of the original curve ( $S_1$ ) than the one before it.

Each increase in supply, demand remaining the same, lowers the price. Eventually, when the supply has increased to the level represented by the supply curve,  $S_2$ , the price will have dropped to the level where it just covers the minimum average total costs of the typical firm. The demand facing the firm is now the  $d_2$  line, and the output of the firm is  $oq_2$ .

The industry is now in long-run equilibrium. The profit signal is stilled. Firms outside the industry are no longer attracted to it, yet the firms in the industry are covering all of their costs, including a return to management adequate to keep the management re-

sources in the industry. Given no intrusion of outside forces, this represents a stable and unchanging position.

This demonstration could be repeated for the long-run adjustments of an industry that is unprofitable in the short-run. The original market price would be below rather than above minimum average total cost for the typical firm. In the long-run adjustment period, firms would leave rather than enter the industry; the industry short-run supply curve would move to the left rather than to the right; the price would rise rather than fall. The loss signal would eventually be stilled and the industry would be in long-run equilibrium.

### INCREASING-, CONSTANT-, AND DECREASING-COST INDUSTRIES

In the foregoing illustration of an expanding industry, the industry was able to expand output without changes in the basic cost pattern. In other words, the entry of new firms apparently had no effect on the costs confronting the typical firm. An industry of this type, where the costs of the typical firm are unaffected by changes in the number of firms in the industry, is said to be a *constant-cost industry*.

We might have selected for illustration an industry in which increased outputs could have been supplied only at increased costs. The entry of new firms into such an industry puts upward pressure on the prices of some or all of the resources used, with the result that the costs of the typical firm rise as the industry expands. This is known as an *increasing-cost industry*. This would be true of industries using resources largely "specialized" to the industry, in the way that coal deposits are specialized to the coal mining industry.

Or we might have selected an industry in which increased outputs could have been supplied at decreasing costs. The entry of new firms into such an industry results in lower prices for some or all of the resources used, with the result that the costs of the typical firm fall as the industry expands. This is known as a *decreasing-cost industry*. This situation can exist only under unique circumstances. It requires that the firms in the industry be buying resources from a firm or firms still operating in the decreasing cost sections of their average total cost schedules.

*An application.* This analysis of industry costs can be put to various uses. For example, the so-called "infant industry" argument for tariffs is based in part on the decreasing cost situation. The argument runs as follows: If larger industry outputs can be produced at

lower cost than can smaller outputs, the "infant" industry in one country will never be able to grow if it must compete with firms in countries where the industry has already reached the large-output, low-cost position. A tariff will shield the infant from the competition of foreign firms, permitting it to grow until it too is in the large-output, low-cost position. The tariff can then be removed and the domestic firms will be able to meet the competition of foreign firms. We shall return to this discussion in a later chapter.

### GENERAL EQUILIBRIUM

In examining the adjustment process in a single industry we have taken no account of the complex interrelationships among the industries of a modern economy. Obviously, actions taken in industry A are influenced by and have an influence on actions taken in industry B, industry C, and so on. No one industry can reach final long-run equilibrium until all have reached long-run equilibrium. When each firm and each industry has reached this position, and when each individual is also in equilibrium as a consumer and as a resource owner, the economy as a whole is in *general equilibrium*.

**The significance of the equilibrium concept.** The equilibrium concept provides the economist with a description of the *tendencies* at work in a market economy. The word "tendencies" is used in recognition of the fact that the conditions necessary for an economy actually to reach and remain at the general equilibrium position are never realized in full in economic life. Those conditions are: (1) pure competition in all markets; (2) no changes in consumer demands; (3) no changes in population; (4) no changes in technology; (5) no changes in the general level of prices; (6) no disturbances from the actions of government; and (7) no disturbances from other economies.

Given these seven conditions, the economic units of the country could work out their interrelated adjustments and arrive eventually at a position of general equilibrium. Obviously, not even one of these conditions is likely to be completely realized at a given moment of time. For example, neither consumer demands nor technology "stand still" for any length of time in a dynamic society such as ours. Before an industry has adjusted to one demand and technology pattern, it finds that it must change its course to meet the requirements of a new pattern.

In real life, the industry dog never catches the equilibrium hare. However, the equilibrium analysis provides the economist with a

description of the chase. The dogs in a race never catch the mechanical hare; however, the behavior of the dogs can be understood only by knowing why they are trying to catch the hare and how. The behavior of the firms, consumers, and resource owners in a market economy can be understood only by knowing why and how they are trying to catch what. It is this kind of knowledge which the economist gains through his study of equilibrium.

### THE PATTERN OF THE ANALYSIS TO FOLLOW

The next step we shall take will be to examine the distribution of rewards in a market economy under the same demanding conditions as those imposed on the analysis of this chapter. Then we shall relax those conditions, one by one, to determine how a market economy functions in the imperfect and changing world of reality, and to discover how (and if) we must modify the conclusions that logically follow from this analysis.

First, we shall drop the assumption of universal and pure competition and examine the performance of markets under conditions that are not purely competitive. Next, we shall allow for the fact that economic processes are carried on in a large number of politically independent but economically interdependent societies in which populations are growing at very different rates, in which technologies are at very different levels, and in which social attitudes toward change are very different. We shall take account of the fact that governments do intervene in economic life in a wide variety of ways, some helpful to the performance of an enterprise economy and others not so helpful or positively detrimental.

Thereafter we shall study the complications that arise out of the use of money, both at the national and international levels, with particular reference to the problems of inflation and deflation, of prosperity and depression. This will be followed by an analysis of selected problems in economic life, largely to illustrate the way in which the tools of the economist can be used to outline the issues in economic policy.

Finally we shall examine alternatives to the enterprise system, with a view to discovering how well each of the alternative systems may be expected to serve the ends of a liberal, democratic society.

#### *Questions:*

1. State and illustrate the difference between the economist's and the accountant's use of the term "profit."

2. The legal requirements for reporting business earnings for federal income tax purposes tend to exaggerate the profit component in the national income. Explain.
3. Indicate with supporting reasons the correctness or the incorrectness of the following statements:
  - (a) "It is not the actual and hence past costs of producing a commodity that determine its market price."
  - (b) "There can be no such thing as surpluses (in the sense of goods that cannot be sold) in purely competitive markets."
  - (c) "To say that the cost of production determines the exchange value of a good (i.e., its price) is quite different from saying that the forces of supply and demand result in an exchange value which, in the long run, tends to be equal to cost of production."
  - (d) "Most economists who believe in the superiority of a competitive market economy over alternative forms of economic organization recognize that there are circumstances which justify, on strictly economic grounds, the imposition of tariff duties on imports."
4. Resource owners in industries that are losing money frequently seek subsidies and other aids from government. Discuss the effects of such aids on (a) the total output of goods and services; (b) the real incomes of resource owners taken as a whole; (c) the interest of consumers.

## *Distribution: Profits and Rent*

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THE functions of an economic organization were described earlier as those of deciding what is to be produced and in what amounts, of allocating resources among the various tasks to be performed, and of dividing the output among the people in the society. We have now seen how the first two functions are handled under the enterprise system. We turn now to a study of how the output gets divided among resource owners. This topic is studied under the heading of "distribution."

### MEANING OF THE TERM "DISTRIBUTION"

The term "distribution" is used in three distinct ways. In the business world the word is used to describe the physical movement of goods from factories to final consumers, via wholesalers and retailers. These last two are known as the distributive trades. In the national accounts, to be described later in Appendix A, the income generated through trade is treated as separate and distinct from that generated through manufacturing and the extractive industries. To the economic theorist, however, these firms are just as much producers as are the others. They are involved in the creation of utilities of one sort or another and what they produce is just as important to consumers as are the material things provided by the extractive and manufacturing industries. In brief, the businessman uses the term *distribution* to describe only one aspect of production.

The word is also used to describe the sharing of the social output among individuals, *as individuals*, regardless of the contributions they may have made toward the creation of the output. When the economist uses the term "distribution" in this sense he usually precedes it with the adjective "personal." We shall see presently that the pricing process distributes rewards to individuals in a very un-

equal fashion. As a consequence a democratic people may not be satisfied with the results, even if it can be shown that the distribution is functionally correct.

In economic theory the word "distribution" is used in the functional sense. Distribution is concerned with explaining how the forces of supply and demand put prices on the factors of production—land, labor, capital and entrepreneurship. Unless otherwise indicated the term will be used in this sense throughout the remainder of this book.

**The problem to be solved.** The problem confronting us centers around this question: What is the relationship of the market prices of the things consumers buy to the money incomes which they earn as resource owners? Do consumer incomes determine market prices, or do market prices determine consumer incomes? The final answer to these questions must wait upon the removal of the assumptions governing the present discussion. For the time being we assume that all consumers are active participants in production, and that they bring to the productive processes all of the resources under their control. We assume, in other words, that resource owners have zero reservation prices when it comes to marketing their resources. With a view to simplifying the problem all resources are grouped under four headings: land, labor, capital, and entrepreneurship. We also continue to assume that the economy under observation is isolated from all other economies, that there is neither growth nor change once the economy has reached its long-run equilibrium position, that money plays a neutral role, and that all firms operate under the conditions of pure competition described in Chapter 6, p. 68.

Given these assumptions, it is obvious that the money value of the claims of the resource owners, which take the form of wages, interest, rents, and profits, must equal the money value of the goods and services produced by the firms; and conversely, that the money value of the goods and services must be equal to the four claims. But how are the total claims divided among the resource owners? Is the sharing determined by arbitrary and capricious forces, group pressures for example, or is it the logical result of competitive market forces?

### PERSONAL INCOME INEQUALITIES

But before we undertake to explain in any detail how competitive market forces tend to distribute the social output "functionally," something needs to be said regarding the present personal distri-

bution of the output and the causes of the great inequalities which the facts reveal.

**The facts.** Table 12-1 shows the share of the nation's total money income going to each one-tenth of the nation's "spending units" in 1948 and 1950. A spending unit is defined as a household consisting of a single person or a number of persons whose incomes are regarded as pooled. The incomes of some households may be much larger than that of others simply because it is made up of a number of income receivers.

TABLE 12-1

SHARE OF TOTAL MONEY INCOME RECEIVED BY EACH TENTH OF THE NATION'S SPENDING UNITS, BY SIZE OF INCOME: 1948 AND 1950

Spending Units Ranked from Low to High	Percent of Total Money Income Before Federal Income Tax (By Tenths)	
	1948	1950
Lowest tenth	1	1
Second tenth	3	3
Third tenth	5	5
Fourth tenth	6	6
Fifth tenth	8	8
Sixth tenth	9	9
Seventh tenth	10	11
Eighth tenth	12	13
Ninth tenth	15	15
Highest tenth	31	29

Source: *Statistical Abstract of the United States, 1952*, Table 311.

There was little change in these two years. The incomes received by the richest households in both periods were roughly 30 times as great as those received by the poorest households.

Another picture of personal income inequalities is shown in the following table which ranks the spending units from low to high by wage brackets.

Both tables reveal the fact that the national income in the United States is distributed very unequally. We shall have occasion in later chapters to consider to what extent this particular distribution is due to the operating requirements of the private enterprise system,

TABLE 12-2  
 DISTRIBUTION OF CONSUMER UNITS BY SIZE OF  
 FAMILY PERSONAL INCOME IN 1950

Family Personal Income (before income tax)	Percent Distribution of	
	Families and Unattached Individuals	Family Personal Income
Under \$1,000	7.6	0.9
\$1,000-1,999	15.1	5.1
\$2,000-2,999	16.5	9.3
\$3,000-3,999	17.4	13.6
\$4,000-4,999	14.4	14.4
\$5,000-5,999	9.2	11.3
\$6,000-6,999	6.0	8.7
\$7,000-7,999	4.2	7.0
\$8,000-8,999	2.5	4.7
\$9,000-9,999	1.5	3.1
\$10,000 and over	5.6	21.9
Total	100.0	100.0

Source: *Income Distribution in the United States. Supplement to the Survey of Current Business.* United States Dept. of Commerce, Office of Business Economics, Washington: 1953, Table 24.

and to what extent to interferences with its operations which needlessly increase the inequalities.

Before considering the forces that would lead us to expect that the income would be distributed unequally in a market economy, it should be pointed out that the data in the preceding tables may exaggerate slightly the actual inequalities. In the first place there are more single and two-person households in the two lowest groups than in the higher ones—young persons who are living alone, old people on pension, and young couples without dependents. In the second place, the family incomes at the bottom of the scale are heavily weighted by the very low *money* incomes of a large number of farmers on marginal land. These families secure an important part of their real incomes from produce raised on their farms. This income in kind is not fully counted. Offsetting this “exaggeration” bias is one running in the other direction. More of the families in the higher income groups own their own homes. The rental value of these homes—what they would have to pay if they were renters instead of owners—represents a real but unrecorded income.

But after all qualifications are allowed for, the fact remains that the national income of the United States is very unevenly distributed.

**The causes.** There are a number of what may be called *basic* causes for these inequalities and a still larger number of subsidiary causes.

1. *Differences in abilities.* In a society in which wages are based on the importance of the contributions which the wage earner makes to the social output, individual differences in rewards are bound to be considerable. The personal qualities which are useful in producing the many things consumers want are distributed very unevenly among the working population. The services of those embodying scarce combinations of qualities have to be rationed. In general they go to the firms that outbid all the others. These individuals are in a strong bargaining position since the option is frequently open to them to go into business for themselves.

2. *The institution of private property.* Wage differentials of this sort would be present in a society in which all young people started from scratch, i.e., with no savings or with equal amounts of savings. Actually the very high incomes of the families making up the richest 10 percent of the spending units are a combination of high wage incomes and incomes derived from the ownership of land and capital. The land and capital may or may not have been acquired out of the previous savings of these particular households. In any event, once the process of saving and acquiring productive property starts, further accumulation becomes progressively easier.

3. *Inheritance or the right of bequest.* One can conceive of a society based on private property and private enterprise in which the State imposed no limits on the amount of income and property individuals were permitted to acquire but prohibited completely the right of bequest. The State would be the universal inheritor of the unspent accumulations of each generation. What effect this arrangement would have on voluntary accumulation does not concern us here. What does concern us is the fact that the right of bequest means that all young people do not start from scratch. A few start with comfortable incomes from property acquired by preceding generations. Since these fortunate individuals are presumably at least as able as those who must start from scratch, it is easier for them to save and accumulate. The result is that the right of bequest introduces a further and powerful force making for increasingly large personal income inequalities.

4. *Miscellaneous factors.* In addition to these three basic causes

of large personal inequalities there are many *minor* causes. There are, for example, the *environmental factors*. Children of well-to-do families have opportunities for a better education than do the children of poor families. Their parents are also more likely to realize the importance of education for economic as well as for cultural reasons. The children tend to know the right people and hence be given the chance to start with more responsible and better paying jobs than children of equal abilities who lack the connections and have had to come up the hard way. Moreover, the children of the poor are more likely to be burdened with dependent parents and near relatives. On the whole, the children of the well-to-do marry later; this renders them more mobile, more able to experiment and shift around, until they find the kind of work for which they are best suited. Hence they are less likely to get stuck in blind alley jobs. *Monopolies* of various sorts tend to increase income inequalities. Finally, just plain *luck* counts, although, in general, it is the able who know how to exploit their luck.

**Mitigating factors.** It must also be remembered that there are forces in a competitive market economy which tend to reduce income inequalities and others which tend to render more tolerable those which appear to be inherent in a private enterprise economy. Unusually high rewards in any job or profession induce young people to qualify themselves for these tasks and to offer their services. In so far as the barriers to entry are not due to insurmountable innate differences in individuals, the high rewards are brought down and low rewards are brought up. Similarly high rewards to capital in any field attract new firms together with the material and human resources required to produce the goods and services that are in short supply. Competition is constantly seeking to equalize the earnings of firms and hence the earnings of the human beings who provide the various services the firms require.

Saving and accumulation in themselves do not produce income. They must be put to use. In a competitive economy this always involves the chance of loss. Hence a part of a people's savings are always being destroyed by bad investment decisions or by changes in production techniques or consumer preferences. Whatever the form of social organization these losses must be borne by people. They are part of the price that must be paid for economic progress. In so far as these losses involve property they are borne by those who own property. In a society in which all capital goods are publicly owned, they would be borne by all the people as citizens. Furthermore most of the saving and accumulating in a private

enterprise society is done by the small minority with very large incomes. The difference between the consumer spending of the richest tenth of the spending units and the poorest tenth is not as great as the difference between their net money incomes before taxes. If the incomes at the top were reduced and those at the bottom were increased by compulsory income transfers until all personal incomes were equal, and if the State then took from these incomes as much as now goes for the maintenance and accumulation of capital and the support of government, the increase in the incomes at the bottom would be inconsiderable.

Even this small improvement would only be forthcoming if the redistribution had no adverse effects upon personal incentives. If it did, and there are strong reasons for believing that it would, the real incomes of all the people, including those who are now at the bottom of the income pyramid, would be less a generation hence than they are at present. This way of looking at the matter suggests that the gross personal inequalities which appear so unwarranted when viewed in the perspective of the immediate present may be responsible for the fact that the real incomes of the lowest 10 percent of the population in the United States have improved so dramatically over the past 100 years, despite the enormous growth of total population.

**Concluding remarks.** Despite the fact that a strong case can be made for income inequalities as a prerequisite for material progress and for the betterment of the children of those who now get the smallest part of the social output, there can be no denying the fact that these existing inequalities arouse strong personal resentments. Those who believe that the institutions of private property and private enterprise are essential to the effective utilization of a nation's human and material resources and to the production over time of a larger and larger social output should not close their eyes to the existence of these resentments. They can easily lead a government which is responsive to the popular will to undertake a redistribution of personal incomes so drastic as to destroy the effectiveness of the market economy itself. If, as many social scientists believe, the maintenance of democratic institutions depends on the maintenance of a competitive market economy—a thesis which we shall consider in a later chapter—we face a dilemma of serious import. Here we take no position on this issue. We merely wish the reader to have the fact of inequality before him when we come to examine public policy issues in later chapters. We shall see the

effects of the democratic bias in favor of equalization in all of the interventions to be studied in these chapters.

We return now to an examination of the way in which competitive forces tend to distribute the social output among resource owners, i.e., the problem of the functional distribution of the national income.

### THE MARGINAL PRODUCTIVITY PRINCIPLE OF DISTRIBUTION

Under the enterprise system, claims to goods and services are distributed to resource owners as part of the same process in which resources are allocated to the various tasks to be performed. Just as this process results in prices being placed on goods and services, so also it results in prices being placed on the resources used in producing those goods and services.

In general, the price placed on each unit of each type of resource is determined by the productivity of that unit, that is, by the contribution which it makes to the production of goods and services. We have called this contribution the marginal product of the unit; hence, this method of distributing rewards is often referred to as distribution on the basis of *marginal productivity*. This distribution scheme can be summarized as follows: "The more your resources produce, the more you get."

It is not the function of the economist to appraise the ethics of this distribution scheme. It is his function to point out that if the people of a country wish to use an enterprise system they must be willing to permit rewards *in the first instance* to flow to resource owners on this basis. This does not preclude the possibility of the state forcing a secondary redistribution of rewards through its power to tax and spend. But one very important question in economic policy is how far the state can go in redistributing income before the incentive system is so weakened as to make it inoperative.

We shall trace the operation of the marginal productivity principle as it is reflected in the wages, interest, rent, and profits received by laborers, savers, landlords, and entrepreneurs.

### PROFITS

The first claim to be examined is that of the relatively small group of individuals responsible for bringing together the land, labor, and capital and making the decisions as to what shall be produced and

as to the methods of production, i.e., the entrepreneurs. Their reward is known as profits.

**Profits a transitional income.** Given the assumptions under which we are here working, the analysis of profits can be disposed of in short order. They represent an important but *transitional income* which disappears as soon as it has served its purpose of bringing the economy into the position of long-run equilibrium. Thereafter growth, change, and uncertainty disappear and with them this particular claim on the social product. There are no net savings, no capital accumulation, no population growth, no technological innovations, no monopolies, no rigidities, no pressure groups, no governments, and hence no governmental interferences, and only one great market, every crack and corner of which basks in the brilliant sunshine of pure competition. In such an economy there can be no such thing as profits as a permanent phenomenon. They emerge whenever some outside force, like a drought or an earthquake, throws the economy momentarily off the dead center of general equilibrium; they disappear as soon as they have accomplished their function of restoring the economy to its general equilibrium position. When the economy is in this latter position, the costs incurred by firms consist entirely of wages, interest, and rents; the incomes which the consumers bring to the market consist entirely of these same wages, interest, and rents. There are no profits.

This does not mean that the managers work for nothing. They are paid, frequently very well paid, but the explanation of the forces determining their rewards is part and parcel of the explanation of the forces determining the rates of wages for workers of various sorts, and will be discussed in that connection. When the managers are also the owners of the firms, they get in addition interest on their capital and rent for the use of their lands. The personal incomes of many individuals in this unreal world, as in the actual world, will be made up of all three elements, wages, interest, and rent, but they are analytically distinct.

We propose now to show that wages, interest, and rent are necessary and permanent components of the national income in the kind of a society we are now analyzing and that they are determined by the same processes that determine the prices of the goods and services produced by the firms. We shall start with rent.

**A warning.** When we come to the use of the theory here being developed as a guide to policy making, we shall have to recognize that in the real world saving, investing, capital accumulation, and capital consumption are all in the picture. Further, we shall be con-

fronted with a confusing admixture of competition and monopoly, of knowledge and of ignorance, of rule-of-thumb production techniques, and of rapid technological change. We shall also have to recognize the existence of many independent nations growing in wealth and in numbers at very different rates and each with an independent credit and banking system, a fluctuating price level, and a network of interventions which complicate economic decisions. In brief we shall have to recognize that those who undertake the entrepreneurial function are exposed to great risks which require at least the hope of exceptional rewards as an offset to losses.

Thus, in the real world there will always be profits and losses in so far as the price mechanism is allowed to work. The functions of these profits (and losses) will be much the same as in this artificial model of an economy during the period in which it is approaching general equilibrium, viz: to provide incentives; to direct production in accordance with the wishes of consumers; to equalize the rewards going to the other factors; and in the process and as a result of shifts in the use of resources, to destroy profits and losses alike. As a matter of fact the net profit component in the national income in the real world is really quite small. And yet it is the most important of the factoral incomes. Destroy it by punitive legislation or discredit it through misrepresentation, and the whole private enterprise system collapses.

The importance of profits does not mean that entrepreneurs should be *guaranteed* profits or even protected against losses. If entrepreneurs are protected by the state against losses, resources will not be driven out of the uses where they are unwanted. Entrepreneurs in a competitive market must not be denied the possibility of profits nor should they be protected against losses. These are the signals on which the efficiency of an enterprise system depends.

Looked at in this way, our approval should not go to the businessman who is losing money, but rather to the one who is making money. The former is keeping scarce resources from their most effective use, and the latter is thereby being prevented from putting them to their most effective use, to the detriment of all of us. This does not mean that the unsuccessful businessman as an individual does not deserve our sympathy, but in so far as we approve of public measures to help him we should approve of such measures as will help him become more efficient or find an outlet for himself and his resources more appropriate to his capacities.

## RENT

In economics the term "rent" refers exclusively to the portion of the social product that goes to the owners of natural resources by virtue of their legal titles of ownership. For brevity all of these natural resources are lumped together and treated as "land." The term thus includes not only land in the ordinary sense of the word, but also rivers, lakes, forests, mines, etc.; in brief, everything which is provided by nature in contrast with the buildings, tools, and equipment which man uses in the cultivation and utilization of land. These man-made things are capital, not land.

The businessman, however, makes no such distinction. He regards both as capital. To him interest and rent are both rewards derived from the use of capital. When he uses the term "rent," he refers to the payment for the use of a durable good, but he always equates it with interest by the process of expressing it as a percentage of the valuation he places on the thing "rented." Thus, if he values a residential property at \$10,000 and he gets \$1,000 a year from a tenant, the businessman will say that he is making \$1,000 a year in rent, or 10 percent gross interest on his investment.

The economists who distinguish between land and capital do so because they believe that there are significant differences between the two, and that failure to recognize these differences is conducive to unwise policy decisions on the part of individuals and the State.

**Land versus capital.** Land differs from man-made durable economic goods in four respects. The four words *origin*, *mobility*, *durability*, and *variability* suggest the nature of these differences.

**Origin.** First of all, there is the difference in origin. Land as space is a gift of nature. Capital is man-made; it results from the application of labor and waiting, or saving, to land.

**Mobility.** A second difference is with respect to mobility. Land must be used where it is. Most capital goods can be moved from place to place. Hence they tend to gravitate toward the places where the market mechanism puts the highest valuation on them. This distinction is not always clear cut. Buildings and certain types of improvements like drainage ditches, dams, bridges, etc., are immovable once they become attached to the land. This leads the lawyer to refer to durable combinations of this sort as real estate. The economist also recognizes that this marriage (without possibility of divorce) creates a new situation, and, as we shall see pres-

ently, he uses the term *quasi-rent* to explain, among other things, the magnitude of the short-run return to capital goods.<sup>1</sup>

*Durability.* A third difference is with respect to durability. In general land is much more durable than the concrete capital goods. The average economic life of the vast accumulation of capital goods in the United States may not be much more than 15 years. Again, however, the difference is only one of degree. It is most pronounced in the case of land regarded simply as space. Land, as the foundation on which to build, is practically indestructible. But some buildings are serviceable for generations, even centuries. Land, as the top 12 to 18 inches from which grains, vegetables, grasses, and trees draw almost their entire nourishment, is highly destructible.

Top soils can be washed or blown away (eroded), or its organic and mineral content can be dissolved and drawn down out of reach of plant life (leached) in a relatively few years, unless great care is exercised in its use. It can also be rebuilt by careful husbandry. Hence it can be said of all soils, as of all capital goods, that their maintenance requires saving. Saving means here that the owners must refrain from practices that yield the largest gross revenues over the short-run, if they are to maintain the fertility of the land. Nevertheless, land, taken as a whole, is much more durable than capital, taken as a whole.

Both, however, are destructible. This means that a very substantial amount of manpower in a wealthy country must be devoted year in and year out just to keeping the existing stock intact. In a private-enterprise economy the primary responsibility for doing this is left to the self-interest of the individual.

*Variability.* A final difference has to do with the persistent variability or lack of uniformity in the total supply of land in economic use. In the case of capital goods, their relatively short economic lives leads to the permanent retirement of inferior types. As a particular capital good wears out it will be replaced by one that embodies the best existing technological knowledge. Given the assumptions under which we are now operating, all concrete capital goods of a given type would be of equal excellence; they would differ from one another only with respect to age. Different plots of land, however, would differ from one another enormously in their productivity, and yet there would be no tendency for superior lands to displace inferior lands. It follows that consumers must always

<sup>1</sup> Alfred Marshall, *Principles of Economics*, 8th ed., Macmillan & Co., Ltd., London, p. 74.

look to lands of different excellence for the satisfaction of their wants.

At any given time there will always be some land in existence that is so deficient in natural fertility or so arid or so swampy or so rugged or so remote from markets as to make it questionable whether it should be used at all. Such land is said to be *marginal*. Lands that are clearly worth keeping in cultivation are referred to as intramarginal, while those that clearly should not be in cultivation are spoken of as submarginal.

In a growing society with an evolving technology, submarginal lands may in time become marginal or intramarginal. Science may change worthless land overnight into a veritable gold mine. But in our static society of pure competition submarginal lands remain permanently submarginal and are, therefore, of no further concern to us.

In the remainder of this chapter and in the next chapter we shall discuss the income from land under the following headings: (a) the measurement of rent; (b) the conversion of rents into land values; (c) the functions of rent; and (d) the problem of vested rights.

### THE MEASUREMENT OF RENT

**Site rent.** We shall start by considering the forces determining the rent of farm lands. With a view to simplifying the problem it will be assumed that the individuals making up the work force are all equal in their abilities; that the farm workers are entirely engaged in growing corn; and that the acres under cultivation are of equal excellence in all respects but one, and that is nearness to market. Let us imagine that the corn farms are distributed in concentric zones around the market town in which all the corn not consumed by the farm families must be marketed. Within each zone the cost of moving a bushel of wheat to market is the same, but the cost of transportation increases as we move from the closest to the more distant zones. The situation may be illustrated diagrammatically as shown in Fig. 12-1. Let *A* be the market town and let the points on the horizontal straight line running through *A* and marked 1, 2, 3, 4, and 5 represent the limits of zones of equal transportation costs.

The step-like curve, with the rises at the zone limits, represents the cost of bringing a bushel of wheat to *A* from the farms in the several zones. The height of the curve along the *Y*-axis in each

zone measures the transportation cost per bushel for all bushels originating in the zone.

Given these conditions, what is the relationship of the price prevailing in the central market town to the cost of production on the farms in the several zones?

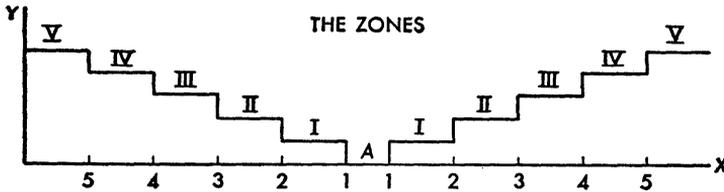


FIG. 12-1

The answer is that, if the people in the town want corn so badly that farmers in Zone III, for example, must be induced to contribute to the supply, they will have to pay enough to cover average total unit costs of all farmers in Zone III when these farmers are operating their farms at the point where these costs are a minimum. The price per bushel that will satisfy a farmer in Zone III will just cover the interest and amortization charges on his machinery and equipment; the cost of seed and fertilizer; wages for hired help plus the wage he might earn if he worked for another; the going rate of return for the exercise of the managerial function; and finally the transportation charge. We can represent this long-run equilibrium cost position of a typical Zone III farmer as follows:

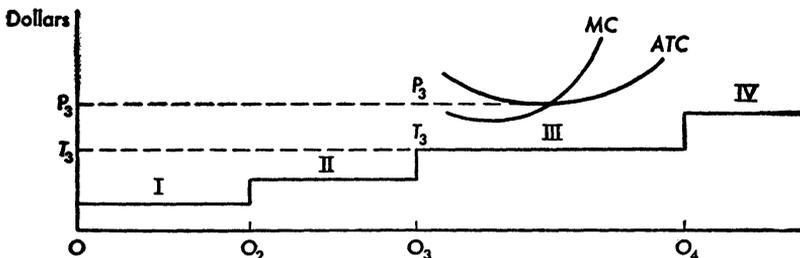


FIG. 12-2

In the long-run, consumers in the town (A) must be prepared to pay  $OP_3$  (Fig. 12-2) for the corn from Zone III (which is equal to  $O_3T_3 + T_3P_3$ , where  $OT_3$  equals the transportation charge per

bushel and  $T_3P_3$  equals the minimum average total unit cost of production).

But what will the farmers in Zones I and II do as demand gradually forces the market price up to the  $OP_3$  level? Is it in the general interest that they sell for just enough to cover their average total unit costs when these are at a minimum, plus their own special transportation costs? If they do, the delivered price of corn to the town (at  $A$ ) will vary according to point of origin. The resulting price differences could not persist. Competition would promptly raise the price to the level necessary to compensate Zone III farmers, and the corn dealers in  $A$  would pocket the money that would otherwise have gone to the Zones I and II farmers. This solution would not be in the general interest. It is better for consumers that the money should go to the farmers because it will induce them to grow more corn. This will prevent the price of corn from rising as high as it would have risen if the farmers in Zones I and II had not been guided by the desire to maximize their money incomes.

The appropriate behavior of a Zone I farmer can be seen by reference to Fig. 12-3. He should push cultivation beyond  $S_1$ , at which

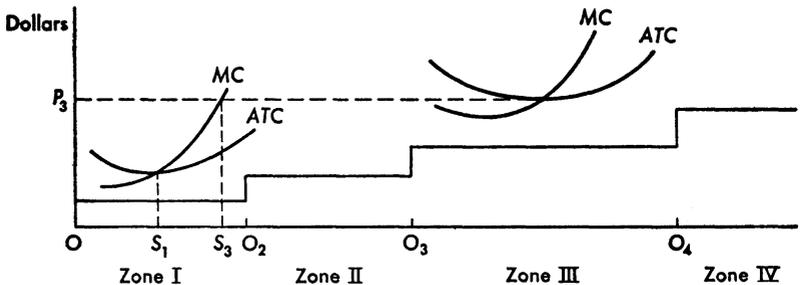


FIG. 12-3

point his average total unit cost is a minimum, to  $S_3$ , at which point his marginal cost plus his transportation cost per bushel are exactly the same as the minimum average total unit cost of a Zone III farmer plus his transportation cost per bushel.

**Fertility rent.** Now let us assume that the farms are all equidistant from market (i.e., that there are no locational advantages), but that the lands under cultivation fall into three fertility classes (Fig. 12-4). Given this assumption it follows that a given amount of labor and capital applied to Grade I land will result in a greater physical output than if applied to Grade II land; and that the same holds true for labor and capital applied to Grade II land in com-

parison with Grade III land. It further follows that Grade II land will not be put into cultivation until it becomes profitable to cultivate the Grade I lands so intensively that the marginal costs on these lands equal or exceed minimum average total unit costs on Grade II lands. After all Grade II lands have been brought into use, a further rise in price will bring into cultivation Grade III lands, and lead to the more intensive cultivation of Grade I and Grade II lands. At any given time marginal cost on the superior lands will just equal the minimum average total unit costs on the land which is just worth cultivating (marginal land) and these costs will just equal market price.

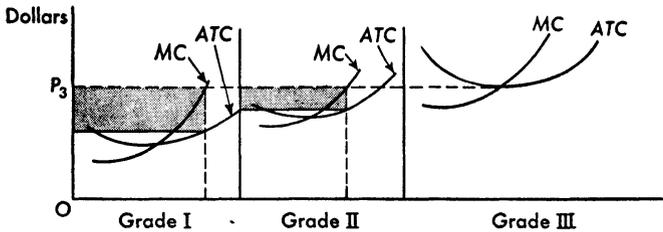


FIG. 12-4

The gross revenues realized by the farmers of Grade III lands are just enough to cover wages and interest. There is nothing left over which can be “imputed” to the land. On the better lands there is a substantial surplus left over which is the result of the difference between output times price and output times average cost. This is rent.

**Marginal land.** We are now in a position to define the term *marginal land*. Marginal land is land so distant from the market (or so inferior in fertility) that the revenues of the firms making use of this land are just sufficient to provide the going rates of return to the labor, capital, and management used in production. The Zone III lands in the site and fertility illustrations are marginal. The net returns the farmers get are just sufficient to cover their expenses—wages, interest on their investment in equipment, etc., and their own entrepreneurial wages. There is no surplus to be imputed to the land as such. Hence we refer to the Zone III lands as “no-rent” or marginal lands. They can only be cultivated *extensively*. The lands in Zone IV are submarginal. Until the price of corn rises to the level that will justify bringing these lands into production, landless workers and savers can get better returns by as-

sociating themselves with Zones I and II farmers than they can by taking up Zone IV land, even though these lands are to be had for the asking.

The gross earnings of the Zones I and II farmers are such that they could pay more for the labor and capital used in their operations than could the Zone III farmers. But competition cannot compel them to do so, and if they did so for reasons of sentiment or under compulsion, an anomalous situation would result. Workers of comparable skill and of comparable moral worth would get different rates of pay, depending on whether they worked for Zone I, Zone II, or Zone III farmers. Similarly, savers would get different rates of interest, depending on the location of the borrowers. It is obvious that the only individuals who have a better claim to the surplus incomes from the Zone I and Zone II farms than the owners of those farms are the consumers taken as a whole, i.e., the community. This was the conclusion reached by Henry George in his eloquent plea for the Single Tax.<sup>2</sup> We shall consider his proposal further in the section on vested rights.

### RENTS AS MARGINAL PRODUCTS

In the analysis of rents up to this point, the relationship between rents and the marginal productivity principle has not been developed explicitly. This relationship can be made explicit in the following way: Let us suppose that an acre of the Zone I land described on p. 144 were to be taken out of cultivation and that the labor and capital thus released were to be redistributed over the remaining land. Because this labor and capital would have to be applied to land already being worked in the range of diminishing returns, the loss of an acre of Zone I land would result in a shrinkage of the total output of corn. It can be demonstrated that the value of this corn loss would be equal to the rent on an acre of Zone I land as computed by the method described on p. 145.

In the same way, it can be demonstrated that taking an acre of the marginal or Zone III land out of cultivation would result in *no* shrinkage of the total corn crop. It will be recalled that marginal land is zero-rent land. In other words, the rent of an acre of land in a competitive market is equal to the value of the contribution which it makes to total output.

<sup>2</sup> Henry George, *Progress and Poverty; An Inquiry into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth; the Remedy* (1880). This book has been translated into many languages and has gone through innumerable editions.

### THE CONVERSION OF RENTS INTO LAND VALUES

**Capitalization: static conditions.** We now want to know how land rent gets converted into a market price for the land. The explanation requires that the rate of interest be regarded as already determined. If that is so, then the market value of an acre of land is simply the present value of all the future surpluses or rents. In a static society with an unchanging technology and an unchanging price level, these surpluses will continue indefinitely into the future and will be exactly the same in dollar value as the surplus presently being realized. The present value of an infinite number of constant dollar payments is obtained by dividing the constant dollar payment (the rent) by the rate of interest. The algebraic formula is  $V = a/r$ , with  $V$  representing the present value of the infinite series,  $a$  representing the annual rent, and  $r$  representing the rate of interest. This is known as the *principle of capitalization*. This principle is applicable to any claim to a definite sum to be paid at definite intervals over a future period of time. The formula applies, however, only to an infinite series and is applicable, therefore, only to land and on the assumption that it is indestructible.

If an acre of Zone I land yields an annual rent of \$10 and the rate of interest is 5 percent, its selling value will be \$200. The assumption here is that throughout the indefinite future the farmer-owner will use the going standard of entrepreneurial judgment; that he will get from his own labor and from hired labor the going output per hour and pay the going wage; that he will pay the going rate for capital; and that his method of cultivation will preserve the natural excellencies of the land.

**A digression on the dynamics of capitalization.** In the real world the conversion of rents into values is not so simple. Future expenses and future prices of farm products are both uncertain. In general, farmers and farm buyers appear to be influenced in their judgments of the future by the happenings of the fairly recent past. If rents have been rising for some time, there is a tendency for sellers to assume that they will continue to rise in the future. Buyers will tend to take a somewhat less optimistic view of the situation. Out of the bids and offers will come a meeting of minds that will yield a market price that exceeds considerably that obtained by the static formula  $V = a/r$ . The formula  $V = (a/r) + (i/r^2)$  appears to provide a better short-hand expression of the effect of these optimistic expectations on present market values. In this formula the value to be given to  $i$  is the average increase in

economic rent per year to be expected on the basis of the average increase over the recent past, say the last 7 to 10 years.<sup>3</sup>

Thus if the economic rent of a piece of land has been increasing at the rate of 25 cents a year for some years and is now \$10.00 per year, its selling price will come closer to conforming with the dynamic than with the static formula. The static formula gives a market value of \$200.000 whereas the dynamic formula yields a market value of \$300.00. What this formula tells us is that a person cannot buy land that is expected to yield a series of rising rents and at the same time get an immediate return in the form of rent that will represent the going rate of interest. Thus, in the foregoing example, \$10.00 represents 5 per cent on a market value of \$200 but only 3.33 percent on a market value of \$300.

The dynamic formula also tells us that, if rents have been declining for a number of years, further declines are likely to be expected and market values will reflect these pessimistic expectations. Thus if the rent of a piece of land has been falling at the rate of 25 cents a year and now yields \$10.00, the market price will not be \$200.00 but only \$100.00. No one is going to buy a piece of land that is expected to yield less and less as the years go by for a price that represents a capitalization of its present earning power.

From what has been said it is obvious that the relationship between the current earning power and the current market value of natural resources, while simple and obvious under the assumptions of a closed and static society, is complex and uncertain in the real world in which the only thing that is sure regarding the future is that it will not be exactly what we expect it to be. Land values reflect our hopes and fears for the future, and not simply the capitalization of present incomes.

### Questions:

1. (a) Identify three meanings of the word "distribution" and indicate which one is regarded as most significant for purposes of theoretical analysis.  
(b) What are the principal causes of large inequalities in the personal distribution of income in the United States today. Indicate with supporting reasons, the consequences you would expect to follow from a compulsory equalization of all personal incomes.
2. Identify "the factors of production" and explain how the forces of

<sup>3</sup> C. R. Chambers, *Relation of Land Income to Land Value*, U.S. Department of Agriculture Bulletin, No. 1224, 1924, p. 29.

supply and demand set a valuation or price on each of the factors. What are these valuations or prices called?

3. Assuming for the purposes of this question that the competitive market economy is "ethically" superior to any available alternative form of economic organization, argue for or against the proposition that the personal distribution of incomes which results from the operation of market forces is to be regarded as ethically just.
4. Discuss critically the following statements:
  - (a) "In view of the definition of profits used in the text it is clear that profits are an unnecessary source of personal income which result in needless inequalities in the personal distribution of the national income. It follows that the State should confiscate them through taxation and use them to provide services which are of particular use to low income families."
  - (b) "Since the businessman makes no distinction between land and capital there is no good reason why the economist should treat them as different."
  - (c) "Since land is a gift of nature there is no good reason, ethical or economic, why farmers who are fortunate enough to operate superior lands (whether the superiority be due to soil or location) should earn more than equally able and deserving farmers who are forced to cultivate inferior lands. If the fortunate farmers do not voluntarily pass on the surpluses which are due to the superiority of their land to consumers in the form of lower prices or to their workers in the form of higher wages, the government should take away the excess through a special tax on land rents."
5. "It is unjust that a land owner should be allowed to reap the going rate of return on his investment in land and also the increase in the value of the land that results from community growth."
  - (a) What determines what investors pay for land in a stationary society? in a dynamic and growing society?
  - (b) Is the statement true?
  - (c) What effects would you expect to follow if the government undertook to tax away all future increases in land values?

## *Distribution:*

# *The Functions of Rent*

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THE preceding analysis has led some economists to argue that private incomes from land should be abolished. The argument goes something like this:

“In a competitive economy market price just covers the expenses of firms operating on marginal lands. Those operating on superior lands enjoy lower expenses of production and pocket the difference or pay it over to a third party, the landlord, according as they own or rent the land. But the landlord did not create the land; he is not responsible for its superiority. If he received no rent he would have no more cause to complain than has the owner of marginal or no-rent land; and he would have no reason to withhold it from use for the very simple reason that he must put it to use if he is to realize an income from his capital and his labor. Rent is an unearned and unnecessary income in the sense that it is needed neither to create land nor to bring it into use nor to keep it in use. It is a surplus and should be divided among the citizens.”

This argument has long been used by “single taxers” to support their proposal for a special and confiscatory tax on economic rent. Others have used the argument to support land nationalization. We shall consider the validity of these proposals in connection with our discussion of the problem of vested rights. But first we should understand the important role rent plays in any society that expects to use its human and natural resources effectively.

(1) **Rent promotes effective land use.** A primary function of rent is to allocate every tract of land to its highest and best use. What does this mean? It means that every bit of land should be used to produce that good or service for which it is best suited and that it

should be under the control of the individual best qualified to use it. Land should not be in corn if society's needs would be better served by having it in wheat; it should not be in wheat if it would be more useful in truck gardening; and it should not be in truck gardening if it would be more useful as a residential or factory site. Not only should land be in its appropriate use, but it should be used with the appropriate degree of intensity. In technical language this means that the investment in the land should be pushed to the point where marginal cost equals the market price of the good or service produced with the aid of the particular plot of land under consideration. To accomplish these two purposes it is important that A should not be allowed to determine the utilization of a tract of land if B could do the job better.

This getting land into its highest and best use is of exceptional importance because the physical supply of land, unlike population and the physical supply of capital goods, can be increased little, if at all. Human welfare depends, therefore, very largely upon the effectiveness with which a society uses its natural resources.

In a society based upon private property and dependent upon private initiatives this problem of highest and best use is resolved through the real estate market. Buyers and sellers of land confront one another in this market, and their bids and offers are constantly reallocating specific tracts of land in an impersonal, but, on the whole, effective way. A firm that cannot realize the full potentialities of a piece of land is forced by competition to give it up to a more effective rival.

*"Rent" control.* The importance of rent as a device to assure the best use of resources can be seen by examining the consequences of controlling rents so that they cannot perform this function. "Rents" have been controlled in various countries of Western Europe since 1914 and were controlled in this country during and after World War II. The word "rent" is placed in quotation marks to indicate that the rents involved were not "pure" rents, in the sense of returns to land alone. The term "rent control" refers to the control of rentals on real estate, which are a combined return on land and the buildings and other capital goods attached to the land. The return on capital goods attached to land has been described as *quasi-rent*. Thus the rent which is controlled is really a combination of true rent and quasi-rent. However, the experience under the various rent control programs is a guide to what might be expected from a control of true rents only.

The control program in this country during and after World War

II consisted of an attempt to keep rentals at approximately the pre-war level. The demand for housing increased rapidly during the war, largely because the money resources of consumers (one of the determinants of demand) increased rapidly. As our analysis (see p. 118) would lead us to expect, the combination of increased demand and a fixed price created "shortages" of housing. More housing was demanded at the going rentals than was available.

As a given commodity becomes relatively more scarce, one of the functions of a price increase for that commodity is to signal the need for more intensive use of available supplies. The rent control program silenced that signal, and the result was a less rather than a more efficient utilization of existing housing.

When it could be obtained, housing was a "bargain," and the small family with a rising income was induced to take over more rather than less space. Landlords were happy to cooperate because, other things being equal, they usually prefer that a given space be occupied by the small (perhaps child-less) family than by the large family. For example, many apartment buildings housed a smaller total population in 1944 than in 1940, in spite of the fact that *all* units were occupied in 1944 while less than three-fourths of the units were occupied in 1940. Housing space being more important, relative to other commodities, to the large than to the small family, the bidding in a free price market would have led the small family to economize on space and would have freed more space for the larger families.

Public opinion in this country, while favoring the rent control program, refused to sanction the logical counterpart of the program—rationing of housing space by the state. In many European countries, the authorities early recognized that government must take over the rationing job that the price mechanism was no longer permitted to do. The housing authorities in some countries kept a constant inventory of housing space and its utilization. If they found a given home with "extra" space, they ordered the owners to move over and make room for more people.

A rationing program of this kind might be distasteful to the American people, but, given a rent control program, it is certainly a more efficient way of allocating space than to rely on the personal whims and fancies of landlords—which is the rationing system that comes into existence once the landlord is not permitted to let the bids of potential renters determine who is to occupy a given space.

A further, long-run consequence of a rent control program is to discourage the construction of new rental housing and the proper

maintenance of existing housing. Our rent control authorities early recognized the second part of this problem and forced landlords to maintain property the return from which wasn't sufficient, under rent control, to justify voluntary expenditures on maintenance. They later recognized the first part of the problem by removing rent ceilings on newly constructed rental units. The result was to create an anomalous situation in which a given quality of rental space in an older building cost less than half what the same accommodations cost in a newly constructed unit.

*European experience.* Many European countries have had rent control for some 40 years now with the result that there has been very little home building by private enterprise. Except where the State stepped in and assumed this function, housing conditions deteriorated steadily. In Paris, for example, 27 percent of all residential buildings in 1948 were over 98 years old; 30 percent were between 68 and 98 years old; 33 percent were 34 to 68 years old; 10 percent were between 12 and 34 years old. Less than one percent were under 12 years of age. With rentals taking as little as one dollar a month of a worker's wage, it is not surprising that owners have not kept the properties in good repair. Bertrand de Jouvenal, the philosopher and economist, reports as typical the case of a lady whose losses on the rent of 34 apartments runs to \$80 a month and who is dependent on her son to take care of her and pay the loss. She cannot sell the properties as there are no buyers. Nor can she postpone repairs indefinitely as the law holds her responsible for damage to the furnishings of her tenants.<sup>1</sup>

In England landlords are reported to pay tramps to accept deeds to old properties as a means of getting out from under the financial burdens of ownership. The senior author of this book lived three years in Vienna immediately after World War I and was, in fact, paid to live in part of a large and beautifully furnished and heated apartment by a landlord who wished to avoid having to take any tenant the public authorities might assign to him.

A control program that related only to land rents would not in-

<sup>1</sup> An excellent brief statement on the economics of rent control is to be found in Milton Friedman and George J. Stigler, "Roofs or Ceilings?", *Popular Essays on Current Problems*, Vol. I, No. 2, The Foundation for Economic Education, 1946.

The information on Paris is taken from Bertrand de Jouvenal, *No Vacancies*, The Foundation for Economic Education, 1948.

A more comprehensive study of the economic, political, and ethical issues involved in rent control, as revealed by Western Europe's long experience with the problem will be found in Wilhelm Roepke, *Wohnungszwangswirtschaft: Ein Europäisches Problem*, Verlag Deutsche Wohnungswirtschaft, Düsseldorf: 1951.

fluence the construction of rental housing, except as it might prevent land from being used as a housing site. This possibility follows from the fact that there would be no financial penalty on keeping a plot of land in a socially less important use. However, a long-continued control of true rents could lead to a deterioration of land itself, unless the authorities were able to distinguish, with great precision, between true rents and returns to capital invested in maintaining the land.

After all, the actual dollars earned by a firm all look alike. The economic theorist can allocate them to wages, interest, rents and profits, but they bear no special labels. Hence a decision that the State should take *all* the economic rent of land or fix the economic rent might easily result in the State taking part of the interest which the firm was earning on improvement and maintenance expenditures, or part of the rewards of superior management. Should this happen, the gains to the community from the appropriation or control of rents might be more than offset by the adverse effects on the utilization of the nation's natural resources.

This rather lengthy discussion of rent control was included here to illustrate the fact that rent in an enterprise economy is not a matter of *ethics*; it is a matter of *function*. The function of rent, as the price paid for the use of land, is the same as the function of any other price—to guide consumers in the use of goods and services and to guide firms in the use of resources. If rents are controlled or eliminated, some other way must be found to get these necessary functions performed.

(2) **Rent equalizes cost.** A further consequence of rent payments is that they tend to equalize costs of production among firms producing a given product at different locations and on different qualities of land. To the individual firm, rent is a cost of production. In recognition of this fact, the material presented in Fig. 12-4 may be modified as follows:

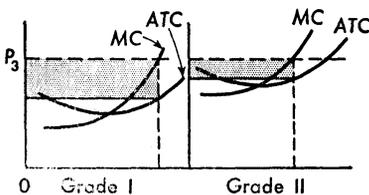


FIG. 13-1

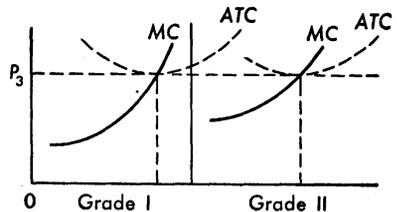


FIG. 13-2

The original average total cost curves of the firms are represented by the solid *ATC* lines. The *ATC* curves which include the costs to the firm of the rents paid (either explicitly or implicitly) for the land are shown as the dotted *ATC* curves. It will be recalled that the entire difference between costs and revenues for Zone I and II farmers was described as rent. Once this rent is assigned as a cost of production, the difference between costs and revenues for these farmers becomes zero, just as it was from the beginning for Zone III farmers.

In other words, once rent is accepted as a cost of production to the firm, the firm using the good land is in no better profit position than the firm using the poor or marginal land. The advantages of the good land are absorbed by the owners of the land in the form of rents.

Because of the equalizing influence of rents, it was not entirely unrealistic for the authors to say in Chapter 11 that the minimum average total cost of *all* firms in an industry in long-run equilibrium would be equal.

A corollary to this analysis relates to the equalization of wages and interest. If all rents were to be taxed away, the firm using the good land would lose nothing by paying its workers and creditors higher returns than would be needed to obtain those resources. Any difference between costs (excluding rent) and revenues would be taken in taxes anyway. This would mean that a worker on Zone I land might receive more than a worker on Zone II land, who, in turn, might receive more than a worker on Zone III land. A similar situation might exist with respect to the suppliers of capital.

Although we shall find that there are factors that prevent an exact geographic equalization of wages and interest rates, there would seem to be no economic or ethical justification for the type of geographic differentials that would arise if the State attempted to tax away rents. The State could prevent such a situation from arising only if it computed the rent on each piece of land on the assumption that the firm using the land was paying the "going" rate for all resources used. This would require a determination of the going rate for each resource in each case. The administrative problems of such a scheme would be staggering.

(3) **Rent exercises a decentralizing influence.** High urban rents are continuously forcing firms that can no longer benefit from proximity to large masses of people to seek out smaller centers where rents and land values are lower. They attract to the great centers

of population the firms that can utilize intensively small tracts of land. Were it not for the tendency of rents to vary with community size, over-urbanization would have gone much further than it has in the United States.

### THE PROBLEM OF VESTED RIGHTS

Henry George supported his proposal for a special confiscatory tax on rent by two arguments: (a) that rent is an economic surplus not needed to bring about the effective use of land; and (b) that present legal titles to land are defective because, in the beginning, land was common property and the original claims to exclusive possession rested on violence. We have already considered the first argument. Here we consider the second.

With a view to clarifying the issue let us admit that the origins of private property in land everywhere in the world may very possibly go back to acts of violence. Certainly the early settlers of this country did not get the lands from the Indians in a peaceful and voluntary exchange. Regardless of origin it is safe to say that primitive man would not have emerged from barbarism if he and his fellows had not reached an agreement to respect one another's possessions, including lands under cultivation—or been forced to do so. Specialization, exchange, accumulation, tool making, and the elaboration of more and more roundabout methods of production depended upon respect for possession, and private property is simply socially sanctioned and protected possession.

Now it may have been a mistake for society ever to have granted protected possession of land in perpetuity. Perhaps it would have been wiser, for example, had the American colonists been granted relatively long leases, rather than outright ownership in fee simple of portions of the public domain. That tenants will make durable and expensive improvements on leased land is amply proved by historical evidence. Much of the urban land of England is held on long-term leases. During the 1930s the Rockefeller family invested millions of dollars in the small tract of land now known as Rockefeller Center. They hold this land on a 99-year lease from Columbia University. At the expiration of the lease the University will come into possession of the Center. The most important thing with respect to land is not perpetual ownership but security of tenure—the assurance that one's right to the use of a tract of land will be respected until such time as one has recovered the value of the permanent improvements he plans to make upon the land. A long lease with the right to sell the unexpired portion of the lease

in the open market is a very good substitute for a title in fee simple.

It is tempting to speculate about what the situation in the United States would be like today if the vast territories ceded to the Confederation in 1785 had been forever held in trust for the American people. It is easy to argue, and impossible to prove, that the early settlers would have braved the dangers and the hardships of the frontier for 49-year leases just as cheerfully as they did for perpetual titles. Had they done so, the values of the leases would have risen for a time as a result of the growth of population and the growth of the demand for the products of the land, only to fall back toward zero as the maturity date approached. Then when the leases were renewed, presumably at public auction, the government would have come into possession of the substantial rents that now go to individuals in perpetuity by virtue of the decision to dispose of the domain in fee simple. These rents might or might not have permitted the federal government to dispense with onerous taxes. That would have depended on the public attitude toward large-scale spending by the federal government.

The refusal to allow land owners to enjoy rents in perpetuity would have forced consumers to pay more than they did during the 19th century for the products of the land. This is due to the fact that the owners of land in fee simple cannot in the short-run get the going wage for their labor, the going interest rate on the improvements they make on the land, *and secure in addition* all of the future rise in rents. If experience indicates that these rent increases will occur, competition forces land owners to share them with the public. The chronic overexpansion of American agriculture throughout the 19th century, and the present situation, are due in part to the lure of the so-called "unearned increment" that induced pioneers to take up land which, at the time, was sub-marginal.

But all this is idle speculation. The federal government first sold and later gave away (The Homestead Acts) most of the domain and the temper of the people was hostile to the idea of public ownership. The pioneers wanted fee simple ownership and nothing less. It is against this background that the equity of taxing away the value of land or confiscating the title to land must be judged.

Henry George "single taxers" are ardent advocates of private property and private enterprise. All they object to is that the owners of land should get the rent. They would leave the titles to land in private hands, but would confiscate rents by a special tax on land. Marxian socialists take the position that private property in

the instruments of production is morally wrong, whether it be represented by land or by concrete capital goods. They would confiscate both.

The position of the "single taxers" seems to most economists to be quite untenable, because of the gross discrimination involved. The confiscation of land rents would wipe out land values and penalize those who happened to own land at the time the change was made.

Those who oppose such discrimination say that present owners have a *vested right* which should be respected. By this they mean that present owners invested in good faith at a time when public opinion looked with approval upon the institution of private property in land. Hence the good faith of the social group has been pledged. Legitimate expectations have been created that cannot be disappointed without causing serious material and moral damage.

**The unearned increment.** To meet the vested rights argument the proposal has been made that society should content itself with taxing away all future increases in rents or land values. Quite aside from the serious administrative difficulties involved, this proposal would still be discriminatory in that it would single out and impose an additional burden on a special group. The discrimination would be due to the fact that in a society in which rents have been rising for some time past—and it is only in such a society that there would be a widespread demand for a special land increment tax—competition forces land owners to content themselves with a rate of return on land purchases which is below the prevailing rate of interest. Taxing away an expected future increase in rent involves the confiscation of a portion of the present value of land.

In a market economy any sudden change in the rules of the game—i.e., any special benefits accorded to or special burdens imposed on owners of land—are promptly reflected in land values. Those who own the land at the time the change is made reap the benefits or suffer the losses. Those who buy land thereafter are neither better off nor worse off.

**The police power.** A fastidious respect for property rights would make it impossible to modify them without compensation, regardless of how badly they operated. Yet obviously property rights must be redefined from time to time to fit them to the changing needs of social life. Under the police power the redefining may be made without compensation. Under what circumstances is it appropriate to use this power?

Our own view is that in principle the State may use the police

power (without compensation) to halt practices that are profitable only because the responsible party is not obliged to pay all the indirect costs resulting from his action. Erosion control, stream pollution control, urban zoning ordinances, municipal building codes designed to reduce fire and health hazards, etc., are examples of restrictions on property rights that are needed to supplement the price mechanism. As will be pointed out later, the abuses that such compulsory interventions are designed to correct would be automatically halted if the injured parties could bill the offenders regularly for their losses. This concept provides a rational basis for distinguishing between public interventions that work with and improve the operation of the price mechanism and public interventions that work against it. It does not settle the debate regarding the relative merits of private enterprise and socialism, but, properly understood, it can help a people make rational as against emotional choices.

### *Questions:*

1. "In a socialist society in which all the instruments of production, including land, belong to all the people, there would be no rent." Argue for or against the correctness of this statement.
2. How would you expect a heavy special tax on real estate rentals (i.e., on the rent of land and on the permanent improvements such as buildings) to affect the market value of (a) the improvements and (b) the land in the short-run? in the long-run?
3. The "vested rights" argument has led many who share the conviction that rent is out of place in a competitive enterprise system to advocate as a compromise the taxing away of the "unearned increment." Identify the "vested rights" argument and argue for and against the social desirability of taxing away the unearned increment. Define the term "unearned increment."
4. A merchant advertises that his prices are low because he is "out of the high rent district." Does experience show that in general the things you buy cost more in the central shopping district than in the outlying stores? If not, why are merchants willing and able to pay the higher rents prevailing in the central shopping district?
5. "There is an obvious inconsistency in the treatment of rent in the text. At one point the authors state that rent is a result and not a cause of the prevailing level of prices. At a later point they declare that rent is a cost of production to the individual firm." Argue for or against the charge of inconsistency.

6. Argue for or against the validity of the following statements:
  - (a) "If the State should attempt to tax away the entire economic rent of land it would be forced by events to regulate interest and wage rates as well."
  - (b) "Rent control without rationing of housing space tends to make a bad situation worse."
  - (c) "Zoning is a much more flexible and equitable instrument for promoting socially desirable uses of land than is taxation."
7. One of the early acts of the British Labour Government was to require landowners to pay over to the state a substantial part of any increase in the value of their lands on the occasion of a sale. Indicate with supporting reasons the probable effects of this law on the ability of private enterprise to bring about the changes in land use required by radical changes in international demand for goods and services caused by World War II.

## *Distribution: Interest*

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IN THIS chapter we shall investigate the nature of interest as a distribution share and the function of interest as a price. We shall find that this study leads us to re-examine one of the important decisions in economic life, first described in our study of the economy of Crusoe's island.

### THE PRESENT versus THE FUTURE

Robinson Crusoe had to divide his time not only between fishing and berry-picking but also between fishing and the making of fish-nets. In other words, one of his problems was to allocate his resources between the production of goods for direct consumption and the production of *capital goods*. The capital goods, such as the fish-nets and the canoe, would assure him a larger flow of goods in the future, but could be produced only at the sacrifice of some goods or some leisure in the present.

If he had spent all of his time fishing, berry-picking, and so forth, and none at making or repairing tools and equipment, he would have enjoyed no improvement in his level of living. In fact, as his salvaged equipment wore out, his level of living would have declined. On the other hand, if he had spent *all* of his time making fish-nets and other capital goods, he would literally have starved to death. Between these two extremes he found a balance between the production of goods for immediate consumption and the production of capital goods, a balance which he considered to be optimal in terms of the situation as he saw it.

In Crusoe's world he alone determined when the proper balance had been struck. In a modern economy, the problem of finding the proper balance is exceedingly important and exceedingly complex.

**The importance of the decision.** Proper resource allocation, whether among present goods or between present goods and future goods, is always important. If the greatest number of human wants are to be satisfied, resources must not be wasted. Waste can occur if either too many or too few resources are allocated to the production of capital goods, i.e., future goods. Also, as we shall see in our discussion of the business cycle, waste can occur if the operation of the system calls for extensive and rapid swings in the allocation of resources between the production of consumption goods and the production of capital goods.

Even a proper balance as determined through market processes can be unsatisfactory when measured against various noneconomic criteria. For example, a balance that satisfies consumers as consumers may provide for a smaller allocation of resources to capital goods production (and, hence, a lower rate of economic growth) than those same individuals, as citizens of a national state, believe consistent with national security. Or a balance that produces a very rapid rate of economic growth may produce serious sociological and political problems because of the inability of the society to adjust to the rapid changes caused by a rapid rate of capital formation. Dislike of change may lead to political decisions deliberately designed to slow down the rate of capital formation.

These are important considerations, but they lie largely beyond the range of competence of the economist as economist. We shall concentrate our attention on market processes as they tend to produce a proper balance as measured by the wishes of consumers.

**The complexity of the problem.** To attain and maintain a proper balance between the production of consumption goods and capital goods is one of the most difficult problems confronting any modern industrial economy, whether it be organized under a free market or any other form of economic organization.<sup>1</sup>

One important complicating factor in a modern economy is the use of money as a measure of subjective valuations. Crusoe could measure the comparative value of present and future goods directly; moreover, he could see the direct cost of making capital goods as that cost was reflected in fewer goods for immediate consumption. In a modern economy, these relationships can be measured only indirectly, only in terms of money. If the value of money were constant over time, no great difficulties would stand in the way of a proper allocation of resources between the production of con-

<sup>1</sup> In Chapter 44 we shall show how a socialistically organized society might solve the problem.

sumption goods and the production of capital goods. However, the value of money is not constant over time. The problem of comparing present goods to future goods is thus complicated by changes in the length of the "yardstick."

Another complicating factor in a modern economy is the element of uncertainty. In an economy characterized by change—by changes in consumer tastes, in technology, in population, etc.—no person can predict with certainty the value of the goods that will be produced by a given capital good over its life span. The comparison of present sacrifices to future gains can never be better than a reasoned guess. The inevitable errors would be serious under any circumstances. When the operation of the system tends to compound errors so as to produce cumulative swings, first in one direction, then another, the problem of maintaining economic stability becomes exceedingly difficult.

#### ATTAINING BALANCE IN A STATIONARY ECONOMY

We shall begin our study of the allocation of resources between present and future goods in an imaginary world from which the complications discussed above have been eliminated. The price level is assumed to remain constant; changes in taste, in technology, and in population are excluded. Then, in this and later chapters, we shall move closer to reality by permitting these uncertainty factors to intrude on the decisions made in economic life.

**The "proper balance."** Our first task is to define the "proper balance" between the production of consumption goods and the production of capital goods. The theory of a free economy, in which the consumer is "boss," would indicate that the proper balance is that which maximizes the satisfactions of the individuals who make up the economy. Moreover, the theory would indicate that this balance should be attained through a market process which reflects the free decisions of those individuals.

**The loanable funds market.** The market in which resources are allocated between consumption goods and capital goods in a free economy is the market for loanable funds. To this market some individuals bring their funds to be "loaned." These funds are a rough measure of the willingness of these people to curtail their current consumption and thus to release resources from the production of present goods. To this market other individuals bring their desire to "borrow." This desire is a rough measure of their evaluation of the goods that could be produced in the future by capital goods constructed in the present.

The interaction between these two groups results in a series of loan transactions at specified prices. The price of the borrowed funds is the *interest rate* which the borrower must pay the lender.

The fact that interest is a price is difficult to perceive, in part because of the unusual way in which it is stated. We are accustomed to prices stated in terms of so much per pound, per bushel, or per ticket. The price of borrowed funds is stated as a percentage per time period of the commodity whose services are being hired. Thus the price for the use of \$100 of loanable funds may be 5%, or \$5.00 per year.

Like any price in a market economy, the price of loanable funds is determined by the forces of supply and demand. Thus, in a purely competitive market, the equilibrium price or interest rate will be that price which just clears the market, which equates the amount of funds supplied to the amount demanded. An increase in the supply of loanable funds, demand being unchanged, will cause the interest rate to fall, and vice versa. As in any market, an arbitrary price set below the equilibrium rate will create a shortage of loanable funds. A price set above the equilibrium rate will create a surplus of loanable funds.

*The pattern of rates.* As with other commodities, there is not one but a large number of markets for loanable funds, distinguished one from another by area, by the length of time over which the loan is to extend, by the degree of risk involved, etc. Thus it is technically wrong to speak of *the* interest rate. In a real economy, there are literally thousands of interest rates. However, there is a rough relationship among all of these rates such that they usually (but certainly not always) rise and fall together. Certain general forces are at work in each of the markets for loanable funds, and our task is to identify them. This we shall do by examining the forces that lie behind the supply of and the demand for loanable funds.

**The supply of loanable funds.** In an economy with a fixed stock of money, the only source of loanable funds is the savings of the individuals and firms who make up the economy. In an economy in which the stock of money is a variable, a second source of loanable funds exists; the second source is money newly created either by the State or the banks. We shall postpone our discussion of interest in this latter economy until we have examined the topics of money and banking in greater detail. At the moment we shall concentrate on the determination and the role of interest rates in a stationary economy with a fixed stock of money. Our findings here

will permit us to evaluate the consequences of changes in the stock of money on the allocation of resources as between the consumption goods and capital goods sectors of the economy.

In any economy, a household can acquire a stock of loanable funds by the simple act of not spending all of its income for consumption goods. This negative act of not spending for consumption goods is defined as *saving*. In the same way, a firm may gain possession of savings by not devoting all of its revenues to direct expenses and by not distributing the surplus to the equity owners. It is from these two groups of savers that the supply of loanable funds must come in an economy with a fixed money supply. In such an economy, *the supply of loanable funds is equivalent to the supply of voluntary savings*.

*The supply schedule.* The supply of loanable funds in a given market can be represented by a schedule showing the number of dollars that savers would be willing to offer at a series of prices (interest rates) at a given moment of time. A hypothetical supply schedule of loanable funds is shown in Table 14-1.

TABLE 14-1  
THE SUPPLY OF LOANABLE FUNDS

Interest Rate %	Dollars Offered
10	70,000
7	60,000
5	50,000
3	40,000
1	20,000

The schedule shows that the savers in this market are willing to offer more dollars at higher interest rates than at lower interest rates. How can this be explained?

*Time preference.* Each of you can answer the question above by introspection. Suppose you were offered the choice of a dollar today or a dollar one year from now. Which would you take? If you are like most human beings, you will take the dollar today. In other words, you prefer present satisfactions to future satisfactions. This is the principle of *time preference*.

Now suppose that you are offered a choice between a dollar today and something over a dollar one year from now. As the "some-

thing over a dollar" is increased from \$1.01 to \$1.02 to \$1.03 and so on, it will eventually reach a level where you will take it in preference to the dollar today. If this were to be the level of \$1.05, your *rate of time preference* would be measured by the 5 cents on the dollar which is needed to overcome your preference for the present over the future.

Obviously different people have different rates of time preference. Some of you might take the "something over a dollar" when it reaches \$1.02; others, not until it reaches \$1.25 or even more. However, almost all of you would prefer the present to the future at some rate, and the future to the present at some rate.

From this discussion it is clear that, other things being equal, a higher interest rate will entice more dollars out of consumption goods markets than will a lower interest rate.

*Liquidity preference.* Another way of viewing the situation is to see it as a choice between a dollar today and the *promise* of a dollar a year from now. The dollar today is "*liquid*," that is, it can be exchanged directly for goods and services. The promise of a dollar a year from now, even if it is certain to be honored, cannot be exchanged directly for goods and services. The promise is *not liquid*; a clerk in a shoe store will not accept it as part payment for a pair of shoes. The 5 cents on the dollar may be viewed as the inducement needed to persuade you to give up a liquid asset (a dollar today) in exchange for a nonliquid asset (a promise of a dollar a year from now).

We are using the concept of liquidity preference to explain the nature of the supply of loanable funds. Later, we shall find that it is used by many economists to explain the demand for money to be held in the form of cash. We shall also find that these two uses of the concept of liquidity preference are not inconsistent.

*Determinants of the supply schedule.* Many factors determine the *level* of the supply of loanable funds. A change in one of these factors can lead to either more or less being offered than before at each interest rate.

Many of the factors determining the level of the supply of loanable funds are sociological in nature. For example a society in which thrift and simple living are marks of "right" behavior will tend to save more at any interest rate than a society in which ostentatious spending is the mark of social propriety. The "*temper of the people*," then, is an important determinant of the level of saving.

Advertising may play a significant role in determining the temper of the people. By radio, television, newspapers, magazines, and bill-

boards, we are constantly urged to buy a great variety of attractive products. The result may well be that we are induced to spend a larger fraction of our incomes for consumption goods than we would if untempted by the activities of the advertiser. It is interesting to note that the various savings institutions have counter-attacked by making use of advertising to attract our dollars into savings channels.

The "*temper of the times*" also seems to be an important factor. For example, a war may induce a live-for-today attitude that increases the rate at which people prefer present goods to future goods. On the other hand, a long period of stability and peace may bring a decrease in the rate at which people prefer present goods to future goods.

The most important short-run determinant of the level of saving seems to be *income*. The higher a person's income, the more he will save at any interest rate, and vice versa. In the same way, the higher a nation's income, the more total saving at any interest rate, other things being equal. In fact, saving seems to increase more than in proportion to increases in income.

This indicates that the *distribution of income* will also be an important determinant of the level of *total* saving in an economy. The rich tend to save a larger percentage of their incomes than do the poor. Hence the larger the fraction of the national income going to the rich, the larger will be the fraction of the income that will be saved. Conversely, the smaller the fraction of the national income going to the rich, the smaller will be the fraction of the income that will be saved.

We shall find that these factors determining the level of saving assume great importance in the discussion of business cycles.

*A concluding note on the supply of loanable funds.* We are attempting to explain how resources are allocated between consumption and capital goods in a market economy. It is important to recognize that the supply of loanable funds, which is equal to the supply of voluntary savings in our model, represents the willingness of individuals to release resources from the production of present consumption goods. We turn now to a study of the factors determining the willingness of other individuals to use the released resources for the production of capital goods.

**The demand for loanable funds.** We have found in *time preference* a reason why individuals must be paid interest on their funds if they are to make such funds available. We now wish to know why others are willing to pay interest for the use of those

funds. We shall find the answer in the factors determining the demand for loanable funds.

*The demand schedule.* The demand for loanable funds in a given market may be represented by a schedule showing the number of dollars that borrowers stand ready to take off the market at a series of interest rates at a given moment of time. Table 14-2 presents a hypothetical demand schedule for loanable funds.

TABLE 14-2  
THE DEMAND FOR LOANABLE FUNDS

Interest Rate %	Dollars Taken
10	5,000
7	25,000
5	50,000
3	80,000
1	120,000

This schedule shows that the borrowers in this market are willing to borrow more dollars at lower interest rates than at higher interest rates. How can this be explained?

The answer is to be found in the uses to which households and firms put loanable funds.

*Consumption uses.* Households usually borrow money to buy a house, a refrigerator, a car, or to take a vacation trip or meet a heavy hospital bill—to do something which the current income of the household will not support. This is one source of the demand for loanable funds.

The higher the interest rate that must be paid for borrowed funds, the more *future* income the household must sacrifice to acquire a given increase in present income. For this reason, households tend to borrow less money at higher interest rates than at lower interest rates, other things being equal.

*Capital uses.* In a modern economy, the most important source of demand for loanable funds consists of the firms in the economy. Firms use the borrowed funds to buy the various capital goods used in production—the buildings, the machinery, the tools and equipment, etc. These funds may come from the undistributed earnings of the firms or from the savings of the owners of the firms or from the savings of those who have no direct connection with the firms.

Whatever their source, these funds make it possible for firms to acquire the *capital* component of the resource combination used in production.

*The productivity of capital.* It is the extra output made possible by the use of capital goods that induces the firms to pay interest on funds used to obtain those capital goods. Phrased another way, it is the superiority of roundabout, capital-using methods of production over direct, noncapital-using methods that explains the willingness of firms to pay interest for the use of borrowed funds. But why will they take more funds at a lower than at a higher interest rate? The answer is to be found in part in the law of diminishing returns or, more accurately, the law of variable outputs.

After a firm has acquired a certain amount of capital, the management of the firm finds that each added unit of capital makes a smaller contribution to output than the previous unit. This situation was discussed before under the heading of "returns to scale of plant."<sup>2</sup> Given this situation, the firm will add more units of capital at a lower interest rate than at a higher interest rate.

Actually capital goods usually cannot be divided into small units, nor are they homogeneous with respect to use. The situation in a given market is usually something like this: Various potential uses exist for various-sized "lumps" of capital goods. In some of these uses, the capital goods would yield, say, an 8% to 15% return on the cost of the capital goods. In other uses, the return might be only 5% to 8%; in still others, less than 5%. If the interest rate were to be 8%, funds would be borrowed to undertake only the 8-15% return projects. If the interest rate were 5%, funds would be borrowed to undertake all projects that would yield something over 5%. If the interest rate were 3%, the way would be opened for even more capital-goods' projects to be undertaken. Thus, the market demand for loanable funds would show that greater amounts would be borrowed at lower than at higher interest rates.

*The determinants of the demand for loanable funds.* Firms buy capital goods to be able to maintain or increase their output of other capital goods or of consumer goods. The ultimate goal of production is the sale of goods to consumers. In this sense, one determinant of the demand for loanable funds is the expected demand for consumer goods over the life of the capital goods purchased with the funds. We shall find that this relationship between the demand for consumer goods and the demand for capital goods is of great importance in analyzing business fluctuations. Here it suf-

<sup>2</sup> See Chapter 10.

fices to recognize that, other things being equal, the greater the expected demand for consumer goods, the greater the demand for capital goods, and hence the greater the demand for loanable funds with which to purchase those capital goods.

Another important determinant of the demand for loanable funds is the level of technology in the economy. The higher the level of technology, the more productive the capital goods, and the greater will be the demand for loanable funds.

Even more important than the level is the technological *trend*. If progress in the mechanical arts is rapid, the rate of obsolescence of existing capital goods will also be rapid. This situation will increase the demand for loanable funds even more than the existing *level* of technology. Population growth has a similar effect. Here, however, these dynamic forces are deliberately excluded.

The productivity of capital will also be influenced by the availability and quality of resources used in connection with capital goods. If the natural or human resources required to make capital goods productive are not available, the demand for capital goods will be correspondingly low.<sup>3</sup>

Various sociological and political factors also are important determinants of the demand for loanable funds. We shall have occasion to discuss such factors in later chapters, particularly in the chapters dealing with our international economic relations.

**The equilibrium interest rate.** We are now in a position to bring supply and demand together and to show how the interest rate is determined and what functions it performs in a market economy.

TABLE 14-3  
THE SUPPLY OF AND DEMAND FOR LOANABLE FUNDS

Interest Rate %	Dollars Offered	Dollars Taken
10	70,000	5,000
7	60,000	25,000
5	50,000	50,000
3	40,000	80,000
1	20,000	120,000

Table 14-3 brings together the data from the two separate tables constructed to illustrate the supply of and the demand for loan-

<sup>3</sup> Economists with their penchant for name calling have dubbed this relationship "the principle of complementarity."

able funds. It can be seen that this market would be cleared only at an interest rate of 5%. If the rate "happened" to be 3%, more funds would be demanded than would be offered. The bids of the would-be borrowers for the short supply of funds would drive the rate up to 5%. If the interest rate "happened" to be 7%, the bids of the would-be lenders would drive the rate back down to 5%. An interest rate of 5% represents the equilibrium rate in this market.

The fact that this rate clears the market is of great importance. It indicates that the rate of use of resources for the production of capital goods will be just equal to the amount of resources released voluntarily by the saving decisions in the economy. In other words, the equilibrium rate of interest in our model economy produces that "proper balance" between the production of capital goods and the production of consumer goods which is consistent with the wishes of the individuals who make up the economy.

Also, if the market is cleared, and if the supply of loanable funds is equal to the supply of savings, there can be neither a shortage nor a surplus of savings. A surplus of savings would mean that some of the funds saved would not find their way into capital goods channels—in other words, savings would be greater than investment outlets for savings. The interest rate would fall, consumption would increase, and a new equilibrium rate of interest would emerge. This adjustment takes time. We shall come back to it in the discussion of the business cycle.

### THE FUNCTIONS OF INTEREST

One important function of the interest rate has already been described. It is to produce that allocation of resources between present goods and future goods which is consistent with the wishes of the individuals who make up the economy. The consequences of not permitting the interest rate to perform this function will be examined in a later chapter.<sup>4</sup>

Given the amount of resources to be devoted to the production of capital goods, the interest rate also serves to allocate those capital goods among the various firms that want to use them.

The competitive bidding for funds to purchase capital goods "squeezes out" those who would put capital goods to less efficient uses and tends to place those goods in the hands of the firms that can make the best use of them.

If the interest rate is not permitted to handle this rationing problem, the State or some other organization is forced to do the ration-

<sup>4</sup> See Chapter 29.

ing. The general assumption in a market economy is that rationing problems can be best handled by the market mechanism, and there seems to be no more reason to question this assumption with reference to the rationing of loanable funds than the rationing of any other good or service sold in the economy.

**Interest as a distributive share.** It should be obvious that the foregoing market process will allocate a certain share of the national income to those who have loaned money. The single word "interest" is often used to designate this distributive share.

The interest share is often identified as "that going to the owners of capital." However, not all funds are loaned for the purchase of capital goods, nor does the ownership of the capital goods necessarily pass to the lender. Thus this identification of interest with the share going to the owners of capital is no better than an illustrative identification. It illustrates the fact that the most important use of loaned funds is the purchase of capital goods and that the expected productivity of extra units of capital goods is the primary determinant of the demand for loanable funds. Also it illustrates the fact that the waiting involved in using capitalistic (roundabout) methods of production is "painful," and that those who do the waiting are rewarded with some share of the national income.

*The ethics of interest.* From earliest times, many men have objected to the charging of interest on loaned funds. We do not propose to debate at this point the ethics of interest-taking. It is part and parcel of the larger issue of the ethics of the private-enterprise system itself. That issue is raised in our discussion of Alternatives to Capitalism. All that we wish to point out here are the consequences of prohibiting interest-taking.

The prohibition of interest would drastically reduce, if not eliminate entirely, voluntary savings. If the people still wished to release resources for the production of capital goods, they would have to charge the State or some other agency with the task of determining how much was to be saved, who was to do the saving, and what agencies would get the savings and use them for capital goods production. These are the functions now performed by the interest rate, and they must be handled in some other way if interest is to be eliminated. We shall have more to say of this in Chapter 44.

**Saving as an institutional process.** The lender-borrower relationship in a modern economy is a complex relationship, with the actual transactions usually handled through such institutions as insurance companies, savings banks, stock and bond brokerage houses, invest-

ment trusts, etc. This type of specialization usually improves the efficiency of the loanable funds market. The individual saver is often not in a position to know where his funds can best be used, and the individual borrower is not in a position to know which individuals have funds available. The specialized saving-investing institutions channel funds from savers to borrowers, and the result is not only a better use of the funds but also a larger flow of funds. The larger flow results from the greater ease with which savers can find outlets for their savings and borrowers can find sources of supply.

However, many of the institutions through which savings flow into the hands of investors are multipurpose institutions. This can lead to a less efficient use of funds if the other purposes of the institutions influence the handling of savings. Also these other purposes may call for a type of government regulation of the use of funds which changes the direction of flow of funds. Thus insurance companies may be denied the opportunity to place any substantial volume of the savings that they collect in risk or venture capital lines. This may be sound regulation in terms of the insurance function of the companies, but it may reduce the flow of funds into the very important venture capital lines.

This is illustrative of the practical problems of maintaining an institutional structure that will serve the market system of economic organization. Every type of institution, whether it be an insurance company, a corporation, a trade union, a bank, etc., can either improve the operation of the system or make it work less efficiently—usually it is a mixture of both at any given moment of time. The task of a people who wish to use a free market system is to work patiently and rationally with the institutions that participate in the markets so that institutions are given every opportunity to contribute to the efficiency of the system and few opportunities to reduce the efficiency of the system. This type of control is usually effected through the agency of government, and proper government handling of such controls is not only consistent with but necessary to the operation of a free-enterprise system.

### *Questions:*

1. Identify the following concepts: capital goods; consumer goods; present goods; future goods; loanable funds; time preference and rate of time preference; liquidity preference and rate of liquidity prefer-

ence; the productivity of capital and the marginal productivity of capital.

2. (a) Identify the limiting assumptions used in this chapter in explaining the determination of the pattern of interest rates;  
(b) Given these assumptions, show (i) why the rate of demand for loanable funds must be equal to the rate of supply of loanable funds; (ii) why the equilibrium pattern of interest rates will be determined by the prevailing rate of time preference; and at the same time will be equal to the marginal productivity of capital.
3. Public authorities have frequently undertaken to prohibit the taking of interest or to set a maximum rate which was below the equilibrium rate.
  - (a) Discuss the consequences you would expect to result from either of these two acts.
  - (b) Identify the functions which the interest rate serves in a private enterprise economy.
  - (c) Do you think that a socialist state could dispense with interest as the price paid for the use of loanable funds if its objective was to maximize the satisfactions of the citizens as consumers?
4. Dropping the limiting assumptions regarding the fixity of the supply of money and the absence of change in technology and in population, but retaining the assumptions of complete factor mobility and zero reservation prices on the part of resource owners, indicate the short- and the long-run effects of each of the changes listed below on the rate of interest in a country with a relatively high standard of living:
  - (a) an increase in personal income inequalities with the national income remaining unchanged; (b) a costly war; (c) the development of a widespread belief in the early end of the world; (d) the breakdown of domestic law and order; (e) a doubling of the money supply; (f) the perfection and wide adoption of an important labor saving device involving a large capital investment; (g) the opening of an unsettled and fertile territory to settlement; (h) a drastic lowering of tariff barriers affecting many products of a country with a much lower level and standard of living.
5. What effect would a fall in the equilibrium pattern of rates have on the market prices of (a) outstanding government bonds maturing (payable) 20 years hence; 6 months hence? (b) land? (c) corporate common stock? (d) corporate preferred stock? (e) labor, i.e., wage rates?

## *Distribution: Wages*

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WAGES are the share of the national income going to individuals in payment for their personal services, as distinguished from the services rendered by their land and capital. The President of the United States, the Chairman of the Board of Standard Oil of New Jersey, and the migratory farm laborer all earn wages. This share is determined at the same time and by the same processes and forces that determine rent, interest, and profits.

**Review of the analysis to this point.** In a dynamic and changing economy, profits are the residual share. They go to the entrepreneurs or innovators. They vary from plant to plant, and from industry to industry. In the aggregate they may be positive or negative, depending on general business conditions. Present profits absorb suddenly emerging surpluses, while past profits make it possible for the owners of firms to shoulder unexpected losses. Hence they fluctuate much more than the other three shares. Among other things profits relieve the other claimants on the national income of risks, stabilize their claims, and direct the economy as a whole toward that "smoothly rotating state"<sup>1</sup> which we have called long-run equilibrium. As the economy approaches this hypothetical position, the losses and gains become smaller and smaller, until they finally disappear, and the erstwhile innovators and suppliers of risk capital become managers of resources who earn wages and receive interest and rent in the event that they are also capitalists and landlords.

When this stage is reached, landlords get their share (rent) because of the superiority of their lands over marginal land. The

<sup>1</sup> This is the term used by Ludwig von Mises in *Human Action*, Yale Univ. Press, New Haven: 1950.

capitalists get their share as determined by the pure rate of time preference prevailing at the time the economy reaches its equilibrium position. The rate is just enough to provide the going level of rewards to the owners of the resources which are devoted to maintaining the society's equipment intact. The rewards also equal the marginal productivity of the intramarginal lands and the marginal productivity of capital. The workers get the rest. The sum total of the three shares represents the national income.

### DETERMINATION OF WAGE RATES

If all workers were completely interchangeable and completely indifferent as to what they did and where they did it, and if all brought to the labor market capacities, skills, and attitudes so identical as to make it a matter of indifference to managers whether they employed one worker or another, then our explanation of wages could be wound up at this point. All workers, including the salaried managers of the firms, would get the same real rates of pay. In brief there would be a single wage rate for labor.

This single wage rate for labor would be determined in the same way as all other prices in the economy—that is, by the interaction of the forces of supply and demand. The equilibrium wage rate would be that which would just clear the market. A wage rate above the equilibrium rate would produce a “surplus” of workers; a rate below the equilibrium rate would produce a “shortage” of workers. Neither shortages nor surpluses could exist if the wage rate were free to seek the equilibrium, or market-clearing level.

**The supply of labor services.** The supply of labor services would be determined by the number of potential workers in the economy and by the decisions those people would make regarding the number of hours they would be willing to work at each of a series of wage rates over a given period of time. This last decision would be determined by the prevailing standard of living.

*The role of standards and levels of living.* A standard of living is different from a level of living. A family's level of living is what it actually consumes; its standard of living is what the head of the household thinks that the level should be. A standard represents an aspiration; a level represents an actuality. Economic progress appears to depend upon the existence of a gap between the two. In poor and industrially underdeveloped countries the two tend to coincide. This affects the response of workers to offers of higher money wages. In the technical language of economics the market supply curve of labor tends to be negatively inclined above some

modest wage level which covers the prevailing level of living. A wage above this rate reduces rather than increases the number of hours of labor offered on the market. In such countries attempts to improve the level of living usually have to wait on improvements in the standard of living, that is, on a raising of the economic goals of the people. They must come to want more before ways can be found to provide them with more.

In a country like ours the standard of living is well above the prevailing level of living. The result is that the market supply curve of labor tends to be positively inclined over a very wide range of wage rates. More labor hours will be offered at a higher wage than at a lower wage. This may be offset to some extent by the fact that the higher the income of the main breadwinner in the family, the less the pressure on secondary family members to seek employment.

So far we have spoken of the market demand or total demand for labor and the fact that the total or market supply curve of labor tends to have a positive or upward inclination. If all the firms want more labor, assuming, as we do here, full employment, the price of an hour's labor will rise and more labor hours will be forthcoming. It does not follow, however, that the supply curve for labor confronting the individual firm will also be positively inclined. On the contrary, in a purely competitive market the supply of resources to any single firm will be infinitely elastic. The firm may buy as many or as few units of any resource as it wishes at the going price without causing any finite change in the price.

**Supply of labor illustrated.** The market supply of labor in a society where the standard of living is but slightly above the level of living is illustrated in Fig. 15-1. It shows that the amount of labor offered first increases as the wage is increased from a low level; then, as the wage approaches and passes that needed to bring the level of living up to the standard of living, further increases in wage rates lead to decreases in the amount of labor offered.

The market supply of labor in a society where the standard of living is high and well above the actual level of living is illustrated in Fig. 15-2. It shows that the amount of labor offered increases with increases in the wage rate throughout the relevant range of wages. Obviously at *some* wage the curve would change from a positively to a negatively inclined curve, but this wage is much higher than is relevant to the situation described.

The supply of labor to the *individual firm* operating in a competitive labor market is illustrated in Fig. 15-3. It shows that the firm

can hire as many or as few workers as it wishes without producing any finite change in the going wage rate.

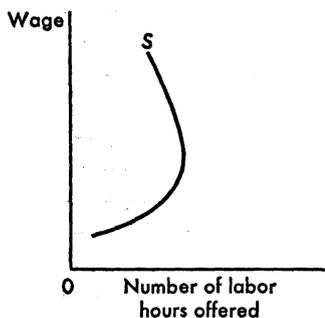


FIG. 15-1

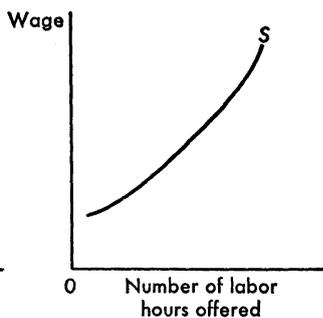


FIG. 15-2

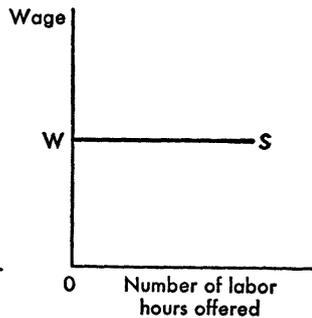


FIG. 15-3

**The demand for labor services.** The demand for labor is a derived demand. It is derived from the demand for the goods and services produced with the use of labor. The demand for labor by an employer at a given moment of time is determined (a) by what labor contributes to the output of the firm, that is, by its *productivity*, and (b) by what the firm receives for its output in the market.

Because the productivity of labor applied to a given amount of capital, land, and management obeys the law of diminishing marginal productivity, the demand for labor by any one firm usually shows an inverse relationship between wage rates and the number of workers hired. The higher the wage, the fewer workers hired, and vice versa.

The combination of the demands for labor from all of the firms in the market represents the market demand for labor. The interaction between the market demand for labor and the market supply of labor produces a single equilibrium wage rate (under the assumptions of our analysis). This wage rate is just equal to the marginal productivity of labor, measured in terms of money. All workers would get this rate.

### WAGE DIFFERENTIALS

The assumptions of our present model do not require any such extreme oversimplification as this. We shall recognize that even in a purely competitive market there will be wage differentials which will be either equalizing or real. The balance of this chapter will

be devoted to explaining the reasons for these two types of differentials and also for geographical wage differentials, which in turn may be either equalizing or real.

**Equalizing differences.** Workers do not choose their jobs exclusively on the basis of money wage rates. Many other considerations are important. Some jobs can be entered into at a very early age, and maximum skills can be quickly mastered. Others require long and expensive training before earnings begin. Still others are irregular, or seasonal, in nature, or involve physical risks or the nervous strain of making decisions and directing others. Again there may be differences in the social prestige attached to different types of work. Given these differences, and assuming that young people were as capable of mastering one job as another, differences in money wage rates would emerge which would be exclusively equalizing in nature. If doctors earned more per hour than ditch diggers, it would be because of the longer and more expensive training involved. An equalizing wage differential is a difference which is necessary to make the total satisfactions derived from different jobs equal.

**The forces responsible for equalizing differences.** If doctors received no more than ditch diggers over their working lives, consumers would have to get along with very little medical service. If there were no premium for dangerous work, or irregular work, the products or services which involved risks of these sorts might not be produced at all. The appearance on the market of even small quantities of such goods would indicate the presence in the labor force of a few people who preferred the jobs, despite the disadvantages. But if consumers placed a high valuation on the products involved, the individuals producing them would not have to accept the same money wages as those working in fields where these disadvantages were absent. The competitive bids of managers would drive up money wages in these occupations. As a result, individuals who had hitherto been deterred from entering them would offer their services. The economy would not be in long-run equilibrium until market forces had established the precise differences in money wages needed to maintain indefinitely the appropriate number of workers in each and every line of work.

If workers were highly mobile, completely interchangeable, and if there were no costs involved in shifting from one occupation to another, or from one place to another, then all money wage differentials would be equalizing in origin, and the real satisfactions obtainable from wages would be equal throughout the market.

**Real differences.** But complete interchangeability of workers is not a necessary assumption of our hypothetical model. Just as we recognized persistent locational and fertility differences in the land supply, so now we shall recognize persistent innate differences in the individuals making up the work force. We shall assume here, and in accordance with conditions in the real world, that individuals differ from one another with respect to physical strength, manual dexterity, keenness of eye, coordination, the speed and precision of reactions, intelligence, ambition, self-control, reliability, and other qualities too numerous to mention. These differences in innate and acquired qualities will produce money wages that are real, not equalizing.

Some of these wage differentials will be temporary, whereas others will be permanent.

**Forces responsible for temporary real differences.** The managers of firms bid for workers, for land, and for savings. They put them to work, and in the process they adapt and specialize the men, the land, and savings. The upper limits of their bids are fixed by the prices they expect to get for their products and the contributions they expect to get from the last unit of each type of resource used in their production. The lower limits are set by what they must pay to get land, labor, and capital from their competitors. Given competition from the side of the firms and from the side of resource owners, the maximum and minimum bids of the firms tend to coincide in a single market price for identical capital goods, for lands of equal excellence, and for workers of equal skill.

These market prices depend upon the relative quantities of the specialized units. If firms discover that they can buy or hire certain kinds of capital goods and hire workers with certain skills, and rent or buy specific plots of land, all at the going rates, and make handsome profits, they will endeavor to secure more of these specialized resources. This will result in a rise in their prices. If these resources can be increased, owners will gain only a temporary differential advantage which will decline and finally disappear. These short-run rewards are frequently referred to as *quasi-rents*. They may go to the owners of specialized capital goods as above normal rates of interest, or to specialized workers as above normal wages. They last only until such time as new resources can be brought in.

In the long-run, the owners of specialized capital goods all get the rate of reward determined by the prevailing rate of time preference and the marginal productivity of capital. In the case of specific plots of land the differential will also disappear to the ex-

tent that it is possible to shift lands from other and less profitable uses. But after this shifting has been completed there will still be those persistent differences in rents which result from the immobility of land (site differentials) and from innate physical differences (fertility differentials).

In the case of specialized labor, as in the case of land, the differential will persist unless it is possible for other workers to acquire the skills that are in relatively short supply. If a long period of training is needed, the differential may last for a considerable period of time. Moreover, the differential may have to be substantial in order to induce less-well-paid workers to undergo the expense of the specialized training, and the loss of earnings during the period of training. If, however, there are no institution barriers to entry into the high paid jobs, the rates will eventually fall to those prevailing for jobs requiring comparable skills and comparable expenses of training. If the rates remain relatively high after this shifting has occurred, the differential is to be explained as an equalizing difference; or a permanent rent of ability difference; or some combination of the two.

**Forces responsible for permanent real differentials.** Persistent and real differentials in wages are due to the different personal traits described earlier and to the fact that these traits are distributed very unevenly in any working population. Their relative abundance is unknown, but this is unimportant. Market forces produce the appropriate responses. The competition of firms for the services of individuals possessing rare combinations of useful qualities assures these persons of high rewards. The wages of all workers bringing a given combination of qualities to the labor market will tend to be equal. If the number of a group possessing this combination is small relative to the composite demand of the firms, the importance of each individual in the group will be great and all will command a high wage. Competition will equalize wages within the group but will not reduce them. It is the inherent scarcity of the qualities involved and not the social deserts of the individual workers that is responsible for the high wage. In this respect many wage differentials are due to the same forces that give rise to the permanent differences in the rents of different plots of land. For this reason these persistent real wage differentials are frequently spoken of as "rents of ability."

### GEOGRAPHICAL WAGE DIFFERENTIALS

The discussion of real and equalizing differences in wages up to this point has dealt with the problem with some allowance for *time* but with no allowance for *space*. In the real world we discover that there are persistent and pronounced differences in the wages paid for similar work in different countries and in different parts of the same country. These differentials have given rise to a great deal of discussion among economists and to a great deal of legislation. It seems advisable therefore to say something more at this point regarding the forces responsible for geographical wage differentials and for the function they play in bringing an economy into long-run equilibrium.

In societies based on private property and on rewards in accordance with what individuals contribute to the national effort directly through their personal services, or indirectly through the capital and land in their possession, the resulting output will be shared not according to need, or to social worth, or to membership in the right club or the right party, but purely and simply in accordance with the relative scarcity of the various factors of production. If natural resources are abundant, relative to the labor and capital, as was long the case in the United States, the rent element will be small, and the lion's share of the output will go to workers and savers in the form of high wages and high interest. If, within the factor labor, certain useful capacities are available in relative abundance while others are extremely scarce, then a relatively large share of the wage component will go to those who possess the scarce capacities.<sup>2</sup>

**The forces responsible for geographical differentials.** Geographical wage differentials are thus due to the fact that the factor mix, or, in more elegant terms, *the proportionality of factors*, differs from place to place. Where labor is the relatively scarce factor, the wage will be relatively high; where it is the relatively abundant factor, the wage will be relatively low.

<sup>2</sup> In China, India, and in many parts of Africa, Central and South America, population is the abundant and increasing factor, with unskilled workers predominating within the labor group, while natural resources and, still more, capital and know-how are the scarce elements. Consequently within these economies, the pure rate of interest tends to be high, land owners absorb an important fraction of the total output, while labor gets a relatively small share, and the portion going to the individual unskilled worker is so close to the biological minimum necessary to sustain life that even a small dislocation in the productive processes leads to an immediate rise in the death rate.

The resulting geographical wage differentials may be equalizing or real, or a combination of the two. Equalizing differences tend to be due to local differences in costs of living, or to sentimental, racial, religious, or other factors (for example, cost of movement and loss of income while moving) which make persons with given skills feel that they are as well off where they are as they would be where their particular skills command a higher price. The test of an equalizing differential is that it does not give rise to a tendency for workers to move from one area to another. Real geographical differentials, on the other hand, are differences of a magnitude that not only makes persons of given skills working in one area feel that they would be better off if they moved to another area but would, in the absence of external restraints (immigration laws, for example), induce at least some of them to migrate. The persistence of real geographical wage differentials are thus due to the insufficient geographical mobility of labor.

This statement must be qualified to allow for the costs of movement. A real differential may exist but may not be sufficient to justify the cost of moving from a low- to a high-wage area. Thus if the cost of movement for a man with a family is \$1,000 and the geographical wage differential is 2¢ an hour, it would probably be uneconomical for the man to move even though the cost of living in the two areas was the same. Assuming an interest rate of 5%, the man would assume a permanent interest charge of \$50 a year on the \$1,000 moving cost but would earn only \$40 a year more (assuming a work year of 2,000 hours).

**The function of geographical differentials.** Relatively high geographical immobility of labor will slow down but it will not stop the operation of the market forces that tend constantly to reduce real geographical wage differentials. Geographical movements of capital are as effective an equalizing force as are population movements and, on the whole, they would appear to be more humane. They occur because low wage areas are attractive to firms that can make effective use of an abundant local labor supply. Unless governments interfere, capital movements will continue until the real differential has disappeared. An important function of real geographical wage differentials in an enterprise economy is to promote geographical movements of capital with a view to reducing the need for people to move.

In our hypothetical economy of pure competition real locational wage differentials will not exist. Capital movements and population movements would have eliminated them in the dynamic period

preceding the attainment of long-run equilibrium. Consequently all workers performing work involving comparable skills will be receiving equal real rates of wages. Equalizing differentials will persist. They involve no social problems since their existence is necessary to the realization of equal real wages for equal work.<sup>3</sup>

### SUMMARY

We have now completed our explanation of the way in which consumer spending in an isolated and stationary economy determines the pattern of production and the division of the product among resource owners. The general level of money wages will depend upon the amount of money with which our hypothetical economy is supplied. Whether the common labor rate is 10¢ an hour or \$10 an hour is of no importance, since the prices of the things the worker buys will be correspondingly low or high. The fraction of the total annual output going to wage earners will depend upon the proportionality of the factors in the economy. If labor is the relatively scarce factor, the wage component in the social income will be relatively large. Again, the division of the wage component among wage earners will depend upon the relative scarcity or abundance of the productively useful qualities they bring to the labor market and upon their geographical locations in the market. Those possessing qualities that are scarce relative to the demand for them will command high wages, while those who can only offer, or are only willing to offer, services that are relatively abundant will get low wages. In an attempt to maximize his real personal income each worker will offer that combination of the qualities he possesses which brings him the highest rate of return. Those able to offer relatively scarce combinations will receive higher real wages than those who can offer only combinations that are relatively abundant. These higher real wages, in so far as they are due to innate differences and not to expensive training, are in the nature of personal "rents" and are due to the same forces that "impute" higher returns to superior tracts of land.

Many of the wage differentials are equalizing, rather than real. Differentials that reflect differences in risks, in irregularities in employment, in social prestige, etc., within groups of workers who are able to perform the required services, will be of this type. Geographical

<sup>3</sup> This point is stressed here because, as will be shown later, the interventions of most modern governments in the labor and welfare fields have the effect of blocking the market forces which work toward the geographical equalization of wages. The interventions are alleged to be in the interests of the poor, whereas in fact they help higher paid workers at the expense of lower paid workers.

differentials that reflect differences in costs of living will also be equalizing in character. In general, and because of the tendency of land rents and local taxes to vary directly with the size of communities, and because of the additional time required for workers in big cities to get to their places of work, money wages for comparable combinations of qualities will vary directly with community size. When the economy reaches long-run equilibrium, all size-of-community differentials will be equalizing. Within single communities there will be both equalizing and real differentials.

The explanation offered in this and the three preceding chapters of the forces that allocate the social output among resource owners does not claim to prove that the resulting personal distribution of the output is the best and most equitable distribution possible. No one knows what would be the most equitable distribution. That is a matter on which each one of us has to make up his own mind. It is a question of social values and social sympathies, as well as personal judgments regarding how individuals would act, as producers and consumers, if the magnitude of their claims as consumers were divorced from the magnitude of their contributions to the social output as workers, as owners of land, and as savers. A good deal more will be said in later chapters about the problem of "social justice."

In these chapters it has been shown how the price mechanism solves the problem of production and distribution in an isolated and stationary economy. In the next three chapters the effects of certain market imperfections will be examined.

### *Questions:*

1. Illustrate by diagram and by simple arithmetic examples the shape of the market supply curve for labor in (a) a country in which the standard of living is above the prevailing level of living and (b) in a country in which the reverse holds true.
2. Define the demand for labor and illustrate by diagram and by simple arithmetic examples (a) the shape of the market demand curve for labor and (b) the shape of the demand curve facing the individual firm, assuming pure competition.
3. Workers frequently prefer unemployment to a cut in wages that provides less than what they regard as necessary to maintain their standards of living. What effect is this attitude likely to have on the real wages of workers in the short-run? Is there any reason to believe that the long-run effects may be different?

4. What is the difference between real and equalizing differences in wages and what conditions would have to be satisfied for market forces to make all money wage differentials equalizing?
5. Give examples of (a) real wage differentials which tend over time to be eliminated by competition, and (b) real wage differentials which cannot be eliminated by competition.
6. Identify the factors which appear to be primarily responsible for the persistence of real wage differentials.
7. What effect does publicly supported education have on real wage differentials?
8. Define geographical wage differentials and identify forces that are responsible for equalizing geographical differences and those that are responsible for real geographical differentials.
9. What effects have (a) good roads and cheap automobiles and (b) protective tariffs had on geographical wage differentials?
10. Argue for or against the proposition that competitive market forces, in and of themselves, tend to narrow geographical wage differentials.
11. Argue for or against the proposition that, from a strictly ethical point of view, it is more difficult to justify large wage differentials going to workers of exceptional abilities than it is to justify geographical differences in wages going to workers of equal abilities.

PART THREE

*The Market Economy under Less-  
than-purely Competitive  
Conditions*



## *The Behavior of Prices*

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IN CHAPTER 6 markets were classified as purely competitive and less than purely competitive. Less than purely competitive markets were, in turn, classified in terms of the relationships of the firms to the buyers of their outputs or to the suppliers of the resources needed for their production programs. The terms monopoly, duopoly, and oligopoly were used to describe markets in which there are respectively one, two, or a few sellers of standardized products. The terms monopsony, duopsony, and oligopsony refer to markets in which there are respectively one, two, or a few buyers of resources. The competition in a market is said to be monopolistic when there are many sellers, each differentiating his product or products from those of his rivals by such devices as advertising, special packaging, special services, etc. Monopsonistic competition describes market situations in which resource owners offer their resources to firms on other than strictly price considerations.

**Preliminary remarks.** If, as is often claimed, very few market situations are purely competitive, why did we start with an account of the behavior of firms in such markets? First of all, some markets do approximate the conditions of pure competition. The material in Part Two can contribute to our understanding of these markets. Second, the method of analysis used there can be used, with modifications, for the study of less than purely competitive markets. But most important, competitive market behavior provides standards by which to judge the results of noncompetitive practices.

**Pure competition provides a standard.** These standards are derived from the picture of an economy in general long-run equilibrium. Every firm is of optimum size, profits and losses are zero, market price is equal to marginal cost, and both of these are equal

to minimum total average unit cost. Under these conditions resources are being used with maximum effectiveness; consumers are getting each good and service at the minimum sacrifice of other goods and services. The national income is maximized and goes to owners of resources in accordance with the importance of the contributions which their resources make to total production.

We propose now to examine the behavior of firms in less than purely competitive markets with these standards in mind. We shall find that noncompetitive behavior, when viewed in the framework of an isolated and stationary economy, with unchanging consumer tastes and production techniques, compares very unfavorably with competitive behavior. But when we turn to the study of a growing and dynamic economy, we shall find that the task of rating the performance of firms is not simple and clear cut. Many less than purely competitive markets may actually produce results that are preferable to those to be expected under pure competition.

**Similarities with pure competition.** Before discussing the rational output and price policy for a firm operating under conditions of less than pure competition, two general observations are in order. First, the management of a firm, regardless of whether it is in a competitive or a noncompetitive position, must solve the problem of plant size or capacity. We maintain the assumption that there is an *optimum size*, and that self-interest, even in the absence of effective competition, suffices to induce the management to continue to assemble resources until this size has been reached. Second, the objective of management is the maximization of profits, exactly as in the case of pure competition. This means that management must compare unit costs of production at various outputs with unit selling prices at these outputs. In general, therefore, there will be one output (the problem of capacity or size of plant already having been solved) which will be most profitable, in the sense that the unit surplus over unit cost multiplied by the number of units sold yields the largest possible total surplus. Up to this point the problem confronting the firm is exactly the same as that of a firm operating under pure competition. In the case of monopoly, duopoly, oligopoly, and monopolistic competitions, the differences arise entirely from the side of demand. In the case of monopsony, duopsony, oligopsony, and monopsonistic competition, the differences arise from the side of supply.

**Differences.** Most of the situations involving monopoly and its variants have one thing in common which did not exist in the case of pure competition. Firms no longer see the demand for their

products as infinitely elastic. Each one knows that any change in its output will provoke a change in market price, upward or downward, according as supply is reduced or increased. Consequently a firm now has to consider not only the effects on its costs of any change in its output, but also the effect of this change on its total revenues.

*Demand as seen by the seller.* The firm can no longer assume that an increased output, of say 10 units, can be sold at the old price, and thus bring in additional revenues equal to 10 times the unit selling price. It must reckon with the necessity of selling at a lower price not only the ten additional units but also the units it could have sold at the higher price, had it decided not to increase output. Hence the net advantage consists of the difference between what it gains by selling more units and the loss per unit on the old output due to the necessity of selling it at the lower price. This difference between total revenue at one output, and total revenue at the next possible larger output, is known as the firm's *marginal revenue*.

*Marginal revenue.* Table 16-1 illustrates the difference in the character of the demand facing a firm according as it operates within or without the field of pure competition.

A firm operating under conditions of pure competition expects to increase its total revenues by the full amount of the market price

TABLE 16-1  
DEMAND AS SEEN BY A FIRM

Operating under Pure Competition				Operating outside Field of Pure Competition		
Out- put	Unit Sell- ing price	Total Revenue	Marginal Revenue	Unit sell- ing price	Total Revenue	Marginal Revenue
1	1.00	1.00	1.00	1.00	1.00	1.00
2	1.00	2.00	1.00	.99	1.98	.98
3	1.00	3.00	1.00	.98	2.94	.96
4	1.00	4.00	1.00	.97	3.88	.94
5	1.00	5.00	1.00	.96	4.80	.92
6	1.00	6.00	1.00	.95	5.70	.90
7	1.00	7.00	1.00	.94	6.58	.88
8	1.00	8.00	1.00	.93	7.44	.86
9	1.00	9.00	1.00	.92	8.28	.84
10	1.00	10.00	1.00	.91	9.10	.82

of the added output; the firm operating outside this area knows that it must sell all its output at a lower price, and that the price will be lower *because of its decision to expand output*. Consequently the profitability of the expansion will depend on the relationship of the added cost to the added revenue, and not upon the relationship either to the old market price or to the new market price.

The situation confronting the two firms can be illustrated diagrammatically as shown in Figs. 16-1 and 16-2. In Fig. 16-1 the hori-

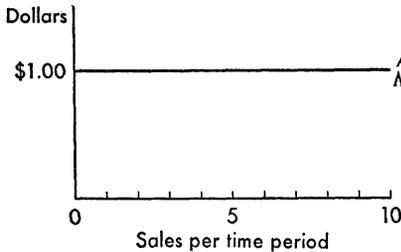


FIG. 16-1

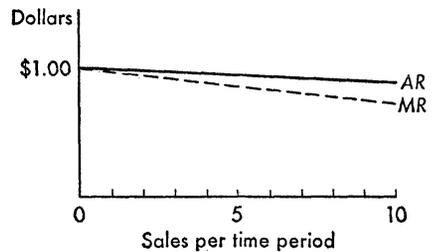


FIG. 16-2

zontal straight line is the familiar curve of infinite elasticity. It illustrates at one and the same time the behavior of market price as the firm expands output from 1 to 10 units, and the added revenue per unit secured by the firm as a result of the expansion of output. We may designate the curve, therefore, as the firm's average revenue curve *AR* and its marginal revenue curve *MR*. One test of pure competition is that the *AR* and *MR* curves shall coincide.

In Fig. 16-2 the *AR* curve slopes downward and to the right because of the necessity the firm is under of lowering price in order to increase sales. The broken line is the *MR* curve. It is calculated from the data regarding total revenue at every possible output and is based on the figures in the last column of Table 16-1. It is less elastic than the *AR* curve.

**The output decision.** As noted before, the proper policy for a firm is to adjust output in such a fashion that marginal cost equals marginal revenue. Since price to the competitive firm is always equal to marginal revenue, the optimum rate of output for such a firm is found where  $MC = P$ . The marginal revenue to the non-competitive firm is always less than market price  $P$ . Hence the generalized profit-maximization rule  $MC = MR$  is the only one applicable in such cases.

Whether the resulting scale of operations permits short-run profits will depend on the demand-and-cost relationship confronting the firm. Whether short-run profits, if any, will persist will depend on the ease with which new firms can enter the industry. If entry is impossible or very difficult, profits and a relatively inefficient use of resources will result. If entry is relatively easy, profits may disappear, but there will still be a relative misuse of resources.

### MONOPOLY

A firm possesses a monopoly when it is the exclusive producer of a good or service for which there is no close substitute. In principle such a firm behaves no differently from a firm that is simply one of many producing a completely standardized product. Each tries to maximize profits; each finds it profitable to expand output as long as the dollars earned by producing and selling more units exceed the dollars expended in producing and selling the added units. Thus a firm can maximize profits only by continuing to expand output until added cost  $MC$  equals added revenues  $MR$ . The competitive firm does this by equating its marginal cost to the prevailing price. The monopolist, however, as the sole producer, has greater freedom of action. He has two alternatives. He can set a price and then produce all that can be sold at that price; or he can adopt a production schedule and then sell the output at the price the consumers are prepared to pay. The one thing he cannot do is control both price and quantity. He must choose. In either case his purpose is to maximize his profits. He does this by equating his marginal costs to his marginal revenue.

Whether the search for maximum profits leads the firm to stop output short of, or to push it beyond the low point  $L$  on its  $ATC$  curve, will depend to a considerable extent on the level and the elasticity of its average revenue curve and on the behavior of its unit costs as output expands. In general, firms operating *outside* the area of pure competition will not operate at the outputs at which competitive firms operate.

**A diagrammatic restatement.** The diagrams in Figs. 16-3 and 16-4 illustrate two possible output and price situations under monopoly. In Fig. 16-3 the  $MR$  curve intersects the  $MC$  curve at  $A$ . A line drawn vertically through  $A$  intersects the  $AR$  curve at  $D$ , the  $ATC$  curve at  $B$ , and the  $OX$  axis at  $S$ .  $OS$  represents the appropriate output, from the point of view of the monopolist;  $OP$  (equal to  $SD$ ) is the price per unit at which this output can be sold;  $OC$  (equal to  $SB$ ) is the average cost per unit. Total cost is thus  $OS$  times  $OC$

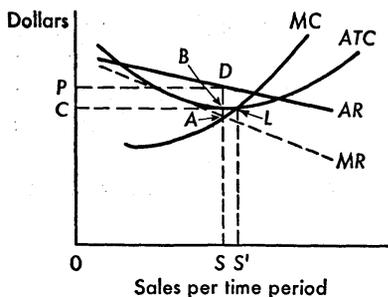


FIG. 16-3

and is represented by the rectangle  $OSBC$ , while the total revenues of the firm are  $OS$  times  $OP$ . Monopoly profit per unit is  $CP$  (equal to  $BD$ ), and total monopoly profit is represented by the rectangle  $CBDP$ . If output were increased from  $S$  to  $S'$ , average cost would fall from  $SB$  to  $S'L$ , because of the bringing into use of idle capacity. This expansion, however, would reduce the firm's profits, since marginal cost exceeds *marginal revenue* at all outputs beyond  $S$ . Consequently, the monopolist has every incentive *not* to expand beyond  $S$ . Nor can he gain by restricting production short of  $S$ .

The only way in which the monopolist could avoid the waste of unused capacity would be to operate with a smaller overhead—with less elaborate and expensive machines, for example. But in this event his average cost would be still higher, and he would then find it profitable to operate beyond normal capacity. This inability to adjust overhead exactly is due to the indivisibility of the resources making up overhead. Two assembly lines in an automobile plant may represent an inadequate investment, but a third line may result in an overinvestment. Technical considerations force the firm to choose. The assumption here is that the management has chosen to go somewhat too far, rather than to stop a little short, with the result that it will normally have a certain amount of idle capacity. This gives flexibility, permits it to meet unexpected fluctuations in consumer demand, and serves as a deterrent to outsiders who might be tempted to enter the field.

Figure 16-4 illustrates the second typical situation. Here the demand is such that the  $MR$  curve intersects the  $MC$  curve above and to the right of the low point  $L$  on the  $ATC$  curve. The firm's profits are substantial, and it pushes output well beyond what would be the long-run normal capacity point for a firm in a competitive field.

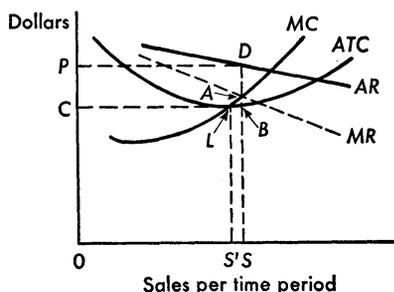


FIG. 16-4

### DUOPOLY AND OLIGOPOLY WITH STANDARDIZED PRODUCTS

Can competition protect consumers in a situation in which there are two (duopoly) or more firms, but so few (oligopoly) that there are no serious technical difficulties in the way of the adoption of a common output and price policy by the group? The protection would not be complete unless the competition resulted in the emergence of a price which just covered the minimum average total unit costs of the firms. But the firms, acting individually, are not likely to push output to the low points on their total cost curves, unless each regards the prevailing price as a datum, i.e., as something given and beyond its control. In fact, it is quite unlikely that the firms will make the assumption that their own outputs have nothing to do with the market price. The demand curves confronting the firms will not be regarded by them as horizontal. Each will try to anticipate the behavior of the others. Each will realize that an increase in output, *as a consequence of its own decision*, will result in a fall in market price, and a loss in revenue on all units hitherto sold at the higher price. Under these circumstances self-interest, without the necessity of any secret understanding, may lead all of the firms to restrict output. The result could be an equilibrium with each firm producing to the scale at which marginal cost equals marginal revenue. All firms would be making profits, and yet they would all hesitate to expand for fear of spoiling the market. Consumers, getting less than would be the case in a competitive market and paying more, would not be fully protected.

The existence of excess capacity tempts each firm to seek extra business. Rather than resort to direct price competition, however, firms may try such tactics as price discrimination, i.e., selling to buyers at different prices, secret rebates, etc. Each seeks to take customers from its competitors without reducing prices to its own customers. The chances are large, however, that in such situations the firms will eventually be merged under one management, which takes us back to the monopoly situation discussed earlier, or that an agreement (collusion) will bring about a still less satisfactory situation.

### DUOPOLY AND OLIGOPOLY WITH PRODUCT DIFFERENTIATION

Another possibility is that the firms will attempt to mitigate the severity of competition through *product differentiation*. This is

much more likely to occur in the case of consumer goods than of producer goods. The diversified tastes of consumers and their suggestibility make it possible for firms to manipulate their own demand schedules. Firms will spend immense sums to convince buyers of the peculiar merits of products which, in fact, are extraordinarily similar in their serviceability. Millions of dollars are spent annually in extolling the merits of four cigarettes which many smokers cannot distinguish one from another. With the aid of brand names and trade marks, soaps, perfumes, gasolines, foods, patent medicines, shoes, shirts, suits, razor blades, to mention only a few consumer goods, are constantly pushed. Advertising itself has become big business. One of its major purposes is to create "consumer loyalties," to increase the demand for a product, i.e., to shift the demand curve to the right and at the same time make it less elastic. Decreasing the elasticity of the demand curve means that small changes in price, upward or downward, will have little effect on the quantity that can be sold.

The efforts of firms to take business away from one another through competitive advertising appears to be much less resented, and hence much less likely to provoke retaliation, than competition through price reductions. And there may be a very good reason for this. Price reductions may or may not bring in new clients. Advertising, on the other hand, brings in, or at any rate the managements of the firms in the industry appear to believe that it brings in, an entirely new clientele. Thus *all* the firms in an oligopolistic industry may benefit by the lavish advertising of any one firm. The latter may actually complain if his competitors refuse to do a reasonable amount of advertising.

The more firms advertise, the more expensive it becomes to buy them out, or to induce them to limit their sales effort to only a part of the market area covered by their advertising. In this sense advertising promotes the maintenance of competition by making mergers or collusive agreements more difficult to arrange.

But advertising also makes the entry of new firms more difficult. A firm that engages in national advertising must be able to supply its customers in every hamlet in the land. For a country like the United States, this requires an enormous annual output. Branch plants may have to be established in various parts of the country, unless the economies of size at the plant level are large enough to offset the costs of shipping to distant markets.

Thus even in situations in which the cost of establishing a plant of optimum size is small, the initial outlay for advertising and the

possibility of having to establish branch plants make entry costly. National advertising appears to have shifted many industries into the category of oligopolistic industries. The decline of the number of firms in the cigarette industry provides a demonstration of the power of advertising.

To conclude, duopoly and oligopoly are likely to end up in mergers, collusive agreements, or in competition between giant firms in which special emphasis is laid on advertising and on the provision of special services to customers rather than on price, pure and simple. Such at least is the conclusion which many economists draw from the theory of oligopolistic pricing presented in this section.

### MONOPOLISTIC COMPETITION

Monopolistic competition differs from oligopolistic competition with product differentiation in the sense that in the former the entry of new firms is relatively easy. Otherwise the tactics are much the same. Firms compete with one another by trying to convince consumers that their products are somehow different from those of other firms in the same industry. Each firm is supposed to build up thereby a fragile element of monopoly and to gain a slight immunity from the steady "gale of competition" to which firms in the field of pure and perfect competition are exposed. Most of the examples of monopolistic competition given in economics textbooks and in the scientific journals are taken from the retailing field—grocery stores, drug stores, gasoline filling stations, department stores, etc.

**Its alleged wastefulness.** This behavior of firms is criticized as wasteful. It is said to distort competition. Instead of vying for the consumers' dollars by offering more standardized products for less, the firms waste money in advertising, in packaging, in servicing, and in adding gadgets that contribute little to the real welfare of consumers. This kind of competition is said to be particularly hard on the poor. They are supposed to want more solid, substantial, utilitarian and standardized products and lower prices. What the firms cater to is the whims of the well-to-do and the weaknesses of the poor, and in the process the very multiplicity of goods and services turned out prevents firms from securing the potential economies of size. Nonetheless the competition may be quite severe enough to wipe out the persistent profits that characterize the fields of monopoly and monopolistic competition.

The diagrams in Figs. 16-5 and 16-6 illustrate the alleged differ-

ence in the end results of monopoly and oligopoly (Fig. 16-5) and of monopolistic competition (Fig. 16-6).

Figure 16-5 is the same as Fig. 16-4. The firm is operating beyond its most efficient scale of output and is making substantial profits because new firms cannot or dare not enter the field. Figure 16-6

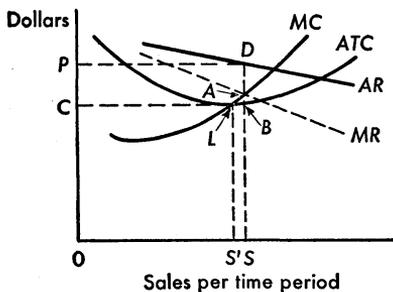


FIG. 16-5

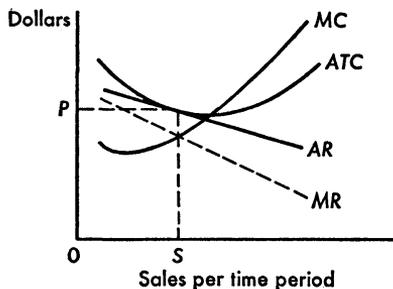


FIG. 16-6

depicts the situation in an industry in which entry is comparatively easy and in which competition works through product differentiation. The *AR* curve is tangent to the *ATC* curve at a point directly above the intersection of the firm's *MC* and *MR* curves. Total costs are just covered, profits have disappeared, but nonetheless the firm is operating well short of its most economical output, viewed from the side of costs. Yet it would lose money if it expanded, since this would raise costs above marginal revenue.

Considerable surplus capacity is tied up in firms operating in the field of monopolistic competition.

### MONOPSONY, DUOPSONY, AND OLIGOPSONY

The situations dealt with in this section arise from departures from pure competition in the markets in which firms buy or hire resources. We now drop the assumption that the firms take the prices which they must pay for resources as given, i.e., as prices which will prevail regardless of their output decisions. Consequently, we can no longer assume that the supply curve confronting the individual firm is a horizontal straight line.

We here assume that the firms under examination are of such size, relative to the markets in which they buy or hire resources, that their output decisions will affect the prices they have to pay for resources. A contraction of output will result in a decrease in the demand for a resource (or a group of resources), and this de-

crease in demand will, in turn, force all owners of the resource (or resources) involved to take less, in order that all of their resources may be employed. Conversely, and for the same reason, an expansion of output will result in an increase in demand for, and a rise in the price of, the resource (or resources) involved. This assumption is tantamount to saying that the supply curves confronting the firms slope upward and to the right.

Just as one test of pure competition is the existence of infinitely elastic supply and demand curves, as these are seen from the point of view of the individual firm, and just as one test of the conditions discussed in the preceding sections of this chapter was the existence of individual demand curves which sloped downward and to the right, so here one test is the existence of rising supply curves. These rising supply curves are due to imperfections in the markets in which the firms buy or hire these resources.

**Illustrations.** The resources employed by the firms are land, concrete capital goods, savings, and labor. Specialization and lack of equally remunerative alternative employments are essential conditions giving rise to monopsony, duopsony, and oligopsony.

Coal mines represent a specialized type of land. Monopsony or oligopsony in this industry will reduce the value of lands containing coal deposits and permit the coal mining firms to lease or purchase such lands on more favorable terms than would otherwise be possible.

In similar fashion an oligopsonistic coal industry may be able to drive down the price of specialized mining equipment if, during a preceding period, the demand for such machinery had brought into existence more capacity than is now required to satisfy the reduced demand. As long as price more than covers average variable costs, the firms manufacturing coal mining equipment have no recourse. Only after the disappearance of excess capacity can the surviving firms cover all their costs.

Savings, on the other hand, represent unspecialized capital and as such are highly mobile. For this reason the output decisions of a given firm or industry can exercise little influence on the rate of interest. For the firm or industry this particular supply curve is infinitely elastic. At any given time the rate remains the same regardless of the amount borrowed, and a change in rate does not affect the price paid on earlier loans.

The situation is different when it comes to hiring labor. If conditions in a particular labor market are such that a decision to expand requires the offering of a higher wage in order to attract additional

workers, *all existing wage contracts have to be revised*. Managements know that they cannot for long pay two different rates to men doing similar work within a single plant. The maintenance of labor morale requires an early upward revision of the old contract.

This fact forces management to "impute" to the added workers not merely the added outlays involved in their wages, but all of the added outlays needed to bring the wages of the old workers up to the new level.<sup>1</sup>

Under this line of reasoning it can be shown that collective bargaining or a minimum wage law that raised the average wage, and hence total wage costs, *might* nonetheless increase the number of workers the firm would employ. This surprising result would be due to the fact that the firm was now confronted with a horizontal and not a rising labor supply curve.

**A numerical illustration.** Table 16-2 illustrates the problem confronting a firm that is buying labor services monopsonistically. Columns (1) and (2) represent the supply schedule of labor serv-

TABLE 16-2  
MONOPSONISTIC MARKET FOR RESOURCES

(1) No. of Workers	(2) Wage per Week	(3) Total Outlay	(4) Marginal Outlay	(5) Marginal Revenue Product	(6) Marginal Outlay under Union Contract
10	\$50	\$500			
11	51	561	\$61	\$68	\$60
12	52	624	63	64	60
13	53	689	65	60	60
14	54	756	67	56	60
15	55	825	69	50	60

<sup>1</sup> More than this, upward revision of any category of wages may shortly require an upward revision of the entire plant wage structure, from the unskilled entrance wage right through to top plant salaries. This is due to the role played by custom in the thinking of workers. An existing pattern of wage differentials quickly comes to be regarded as "right and fair." The upward revision of the wage rate applicable to any single job classification opens up the possibility that comparable adjustments may have to be made in all the other rates.

ices confronting the firm. It shows, for example, that a weekly wage of \$50 would suffice to bring 10 workers to the firm, but that a wage of \$51 would be needed to bring 11 workers to the firm. Column (3) shows the total outlay on wages at each of the possible levels of employment. Column (4) shows the increase in total outlay on wages per unit increase in employment. Thus, to hire 12 rather than 11 workers the firm must increase its outlay on wages by \$63 —this in spite of the fact that each of the twelve workers is paid but \$52 a week. The difference arises out of the fact that each of the eleven workers who could have been hired for \$51 a week must also be paid the \$52 needed to attract the 12th worker.

Column (5) shows the increase in the revenues of the firm per unit increase in employment; this increase is known as *marginal revenue product*. It shows, for example, that the revenues of the firm will be greater by \$64 if it hires 12 rather than 11 workers. Column (6) will be explained later.

Common sense tells us that the firm should continue to add to its work force so long as each added worker adds more to the revenues of the firm than to the outlays of the firm. Thus an eleventh worker would add \$68 to the revenues of the firm but only \$61 to the costs of the firm. A twelfth worker would add \$64 to the revenues but only \$63 to the costs of the firm. The firm should hire twelve workers but no more since the hiring of a thirteenth worker would add only \$60 to the revenues of the firm but would add \$65 to its costs. In other words, a rate of hiring of 12 workers represents the equilibrium level of employment for the firm in the circumstances described here. The equilibrium wage is \$52 per week, the wage needed to attract 12 workers to the firm.

Now suppose that a union were to be organized and that, through collective bargaining, the union and the company were to sign a contract calling for a wage of \$60 per week. Under this contract, the added cost (marginal outlay) of hiring 12 rather than 11 workers would be \$60 and not \$63. This same marginal outlay would confront the firm throughout the range of employment levels given in the table, as shown in column (6). Applying the rule that the firm should add to its work force until the addition of another worker would add more to costs than to revenues, the new equilibrium level of employment for the firm would be 13 workers. Thus, at the higher wage, the firm is actually hiring *more* rather than *less* labor.

This does not mean that the firm will be “happy” about the new arrangements. On the contrary, it will be in a worse profit-and-loss

position than before the organization of the union. However, it would be in an even worse position if it refused to hire the thirteenth worker. The union has forced a redistribution of income from the owners of the firm to the workers and, at the same time, has increased the firm's demand for labor.

The relevance of this analysis to wage-employment problems in the American economy will be discussed in Chapter 33. The thing to note here is that this result requires the assumption that the firm is buying labor monopsonistically and that the union asked for only \$60 and not some higher figure. Had the union demanded \$65 a week, the firm would have *reduced* employment to 11 workers rather than increased it to 13. In other words, this result is obtained only under conditions where the firm is not buying resources competitively and only for wage changes within certain limits.

If the situations discussed in this chapter are widespread in the American economy, it is obvious that the price mechanism will not produce the optimum allocation of resources, will not maximize the national income, and will not distribute it to factor owners on the basis of their contributions. This view is widely held. We shall examine it after the discussion of collusion, the last of the noncompetitive situations mentioned at the outset of this chapter.

### Questions:

1. Identify the departures from pure competition discussed in this chapter.
2. Draw up two hypothetical demand schedules, one illustrating demand as seen by a firm confronted with pure competition in the market in which it sells its output, the other illustrating demand as seen by a firm selling in a less than purely competitive market. Illustrate the two situations graphically.
3. Do the same thing for firms confronted with pure and with less than pure competition in the markets in which they buy or hire resources.
4. "When an industry expands output in the face of an unchanging market demand, price has to fall regardless of the presence or absence of competition. Hence all the firms in the industry are confronted with the same loss of revenue on their former outputs. This being so, the concept of marginal revenue has no practical significance." Define marginal revenue and defend the proposition that the concept enables economists to derive conclusions that have practical usefulness. Illustrate by examples.

5. In general, firms which are sheltered from pure competition will not operate at their normal capacities. Explain and illustrate diagrammatically.
6. In time oligopolistic competition is likely to result in monopoly, collusion, or cut-throat competition.
  - (a) Assuming that the first two avenues of escape are not available, indicate other devices that firms may resort to to avoid cut-throat competition.
  - (b) Define the term cut-throat competition.
7. Argue for or against the following propositions:
  - (a) "Advertising promotes monopoly or oligopoly."
  - (b) "Monopolistic competition is socially wasteful."
  - (c) "Cutting prices is, of course, the most dangerous way to move heavy inventories, but nonetheless it's being done."
8. Discuss the short- and the long-run effects of oligopsony on
  - (a) the market value of land that is serviceable only to the oligopsonistic firms;
  - (b) the firms specializing in producing the particular equipment used by the oligopsonistic industry;
  - (c) the wages of the workers who depend exclusively on the oligopsonistic industry for employment.
9. Is there any difference in the short- and the long-run effect on wages and employment of a high minimum wage imposed on an industry confronted with pure competition in its labor market and on one in which the competition is oligopsonistic?
10. In the light of the analysis up to this point give a definition of "exploitation of labor" which you think the authors of this book would accept.

## Collusion

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LITERALLY, collusion means the “act of playing together.” In the course of time the idea of deceit or fraud attached itself to the term. For our purposes collusion means the act of agreeing on a common live-and-let-live policy by legally independent and potentially competitive firms or organized groups of resource owners or a combination of firms and resource owners. The collusion may be legal or illegal, depending upon the laws of the country concerned.

### BUSINESS COLLUSION

Business collusion is usually due to the existence of surplus plant capacity. This excess may be the result of the high profits of a preceding period, which induced the entry of an excessive number of new firms, or of ill-judged expansions by existing firms, or of an unexpected decline in demand. Regardless of the cause, market price falls below the low point on the *ATC* curves of the firms, when all operate at normal capacity. Under pure competition the wearing out of plant and the withdrawal of firms would finally remove the excess capacity. This is a painful process. If the number of firms is small, the managements will be tempted to agree upon a common policy of output restriction, with a view “to stabilizing the industry.”

**The role of demand.** The elasticity of demand plays an important role here. If demand is relatively inelastic, a slight reduction of output may result in a sufficient price rise to permit all of the firms to cover or more than cover their costs, even though their unit costs have also risen. If, on the other hand, demand is highly elastic, a substantial restriction of output may be required, and this may

force all firms to operate at such high points on their cost curves as to negate the advantage of the price rise.

**A diagrammatic illustration.** The diagram (Fig. 17-1) illustrates these two situations.  $D'$  and  $D''$  represent two industry demand curves. At output  $OQ$  market price is  $OP$ , regardless of the shapes of the two demand curves, and is below the costs of all the firms in the industry. Accordingly an agreement is reached to cut output back to  $OQ'$ . Each firm accepts a quota based upon its normal capacity output. The price rises to  $OP'$  or to  $OP''$ , according as the demand is elastic or inelastic.

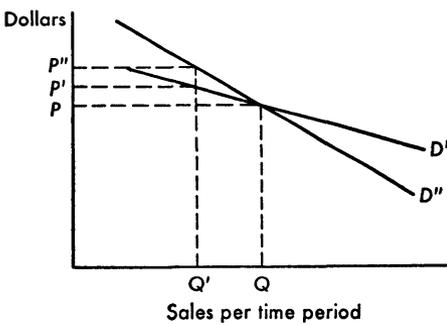


FIG. 17-1

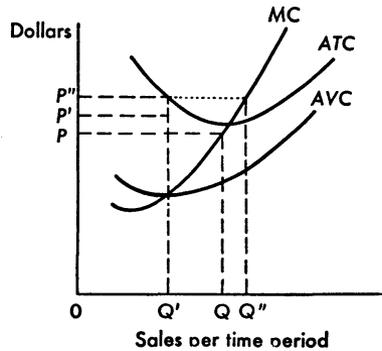


FIG. 17-2

Figure 17-2 illustrates the situation confronting a typical firm in the industry.  $OP$  represents the market price which prevailed prior to the agreement and  $OQ$  the firm's appropriate output. This price, equal to marginal cost, exceeds its variable costs but falls short of its total costs.  $OQ'$  represents its reduced "quota" output.  $OP'$  represents the resulting rise in price on the assumption that consumer demand is highly elastic;  $OP''$ , the price if the demand is relatively inelastic. Given the firm's cost schedule, it is obvious that the cut-back can restore profits only if demand is reasonably elastic.

**Enforcing collusion.** Inelastic demand thus increases the incentive for firms to "play together," but it also confronts them with a very difficult enforcement problem. Each management knows that it can increase its profits substantially by exceeding its quota, provided the others comply. Thus the firm with the cost schedule and the inelastic demand schedule shown in Fig. 17-2 would maximize its profits by expanding output to  $Q''$ , if all the other firms observed their quotas. At this output its marginal cost would equal

market price, and its profits would be substantial. (The assumption here is that its excess production would slightly depress price.) But if all the others do the same thing, the "bottom will drop out of the market," and if, in the period of partial compliance, new firms had entered, price will fall below the average variable costs of most of the firms, and the industry will be completely demoralized. To succeed, therefore, there must be some method of policing the agreement. Experience shows that successful policing for any considerable length of time is impossible without active government support.

Even though the original parties to the agreement can be kept in line, the enormous potential profits to be had by a noncooperator are likely in time to bring new firms and hence additional capacity into the industry.<sup>1</sup> This will either lead to the breakdown of the agreement, or to the bringing in and according of quotas to the new firms at the expense of the original members.<sup>2</sup>

**Competition versus collusion.** Frequently, the final result of a collusive agreement is that all the firms in the agreement end up operating so far short of their normal capacities and with such high unit costs that all profits disappear. This outcome, in a sense, resembles that reached through pure competition, which also reduces profits to zero. The social results, however, are very much less satisfactory. Instead of an industry in which all of the firms are operating at normal capacity and selling relatively large outputs at prices that just cover minimum average total costs, a larger number of firms, all operating below capacity, provide consumers with smaller quantities at a higher price. The excess plant capacity and the excess management tied up in these operations represent a waste of valuable resources. Moreover the reduced employment increases job applications in other and more competitive industries and drives wages there to lower levels than would otherwise prevail. Thus collusive practices *reduce* the national income and *increase* the inequalities in its distribution.

Figure 17-3 illustrates the difference in the end results of these two no-profit situations. Under pure and perfect competition con-

<sup>1</sup> The increase of imports from abroad is almost certain to break down the agreement unless the government can be induced to increase tariffs and other obstacles to international trade in the commodities involved. In a free-trade world collusion would be almost impossible.

<sup>2</sup> The history of cartels, for this is what we are here describing, records cases in which the mere threat of establishing a new firm has enabled men of substance to "blackmail" collusive associations into paying them large sums of money as the price of keeping out.

sumers would get a larger quantity of the product at price  $OP$  from  $x$  firms all operating at approximately their most efficient scales, and each supplying  $OQ$  units, whereas under the collusive agreement consumers get a smaller quantity at the higher price  $OP'$ , from a larger number of firms, each producing  $OQ'$  units and operating at high and inefficient points  $C'$  on their cost curves.

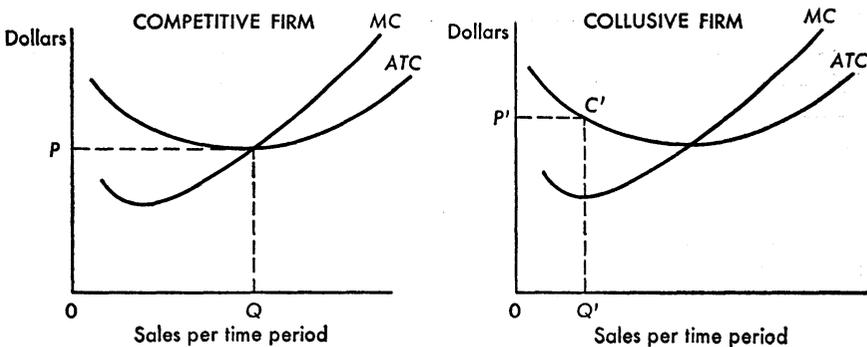


FIG. 17-3

**Collusive techniques.** Economic history is replete with examples of the many and ingenious ways in which firms have tried to escape from what they regard as "cut throat" competition. The following devices by no means exhaust the list. The managements of the firms may agree (a) to a division of the market, in a geographic sense, with each firm seeking sales only in the territory reserved to it, or (b) to sell only through a common selling agency and on a quota basis, or (c) to adjust their prices to those of a dominant firm in the industry. This last is known as *price leadership*. Price leadership is not, however, an infallible evidence of collusion. It may be quite spontaneous without prior agreement and without any enforcement machinery.

**Monopoly versus collusion.** If the technical conditions in an industry and the nature of the demand for the product require a choice between collusion and monopoly through merger, the monopoly solution may be preferable from the social point of view. The management of the monopoly would control productive capacity and see to it that this capacity was effectively utilized. The wastes involved in indefinitely tying up excess capacity and excess management, which is always a scarce and very valuable resource in any society, would be avoided. To the extent that the competition of substitutes did not protect the consumer, government regu-

lation or government ownership would be necessary. Either of these solutions would be preferable to overt government encouragement of collusion.

**Collusion and factoral rewards.** Monopolistic and collusive business practices tend to depress the rewards going to resource owners. If the latter have zero reservation prices for their services, i.e., if they will accept any reward offered, rather than allow their resources to go idle, the economy will operate at the full employment level and the rewards going to resource owners will be determined by their productivity in the competitive sector of the economy. Firms operating in the noncompetitive sector will be obliged to pay only enough to secure from the competitive sector the resources required for their operations, and the scale of their operations will be determined by the considerations discussed in the preceding section. The firms operating in the competitive sector will operate at zero profits and the owners of the resources, including the managements, will receive in wages, interests, and rents the equivalent of the value output from this sector of the economy. There will be persistent profits in the noncompetitive sector, yet these profits will not, in and of themselves, induce expansion. They will go to the owners of the equity capital, and, if expected to persist, they will become capitalized by the process described in Chapter 12.<sup>3</sup> Subsequent buyers of the securities of the firms in the noncompetitive sector will pay prices which will yield to them the same rate of interest as investments in the competitive sector of the economy. With the passage of time it becomes more and more difficult to correct the situation without doing an "injustice" to thousands of innocent investors.

How adversely the long-run interests of society are affected by monopoly and by collusion will depend upon (a) the relative size of the noncompetitive sector, (b) the spending and investing habits of the profit makers, and (c) the capital requirements of the society. On balance the people of the United States may actually have benefited from the monopolistic practices of the 19th century. This is due to the fact that the noncompetitive sector was not excessively large, that the recipients of the monopoly gains reinvested most of their gains, and that the country, being underdeveloped and growing rapidly in population, stood in great need of a high level of savings. Thus the very deficiencies in the market mechanism, while unfair to factor owners at every moment of time, served to squeeze out of the economy a larger annual volume of voluntary savings

<sup>3</sup> See pp. 147-8.

than would otherwise have been possible. The result was that the rate of capital formation exceeded the rate of population increase taken as a whole. The growing army of workers was equipped with a steadily larger and better kit of tools and was thus able to turn out consumer goods and services in such increasing volumes that real wages rose faster than ever before in recorded history.

Nonetheless, public opinion rightly disapproved of these monopolistic gains, but was never entirely clear as to the best method of eliminating them. One possible method of coping with the situation is to offset business monopoly and collusion with monopoly and collusion on the part of resource owners. The idea is that, if the bargaining power of resource owners can be built up, results may be expected comparable to those which would prevail if the entire economy operated under the conditions of pure competition.

### COLLUSION AMONG OTHER RESOURCE OWNERS

In this section we discuss collective bargaining and the New Deal Agricultural program as examples of recent developments based on this idea of equalizing the bargaining power of workers and farmers.

**Collective bargaining.** From a strictly economic point of view a trade union is a collusive organization of resource owners,<sup>4</sup> formed for the purpose of bringing about a level of wages and conditions of work more favorable to the group than those determined by market forces. This result is secured by collective as opposed to individual bargaining. The employees of the firm form a union, elect officers, and authorize them to bargain with management regarding wages, hours, and other conditions of employment. If the firm can be induced to accept the arrangement and an agreement can be reached as to rates of pay for various categories of work, the firm must pay these rates regardless of how many or how few workers it employs. The labor supply confronting the firm is a horizontal straight line.

In a later chapter we shall examine in some detail the effects of collective bargaining in the United States. At this point the analysis remains at the strictly theoretical level and is based on the assumptions of our isolated and static model as it appears after the in-

<sup>4</sup> Unionism aims at more than an improvement in the wage contract. We are not here concerned with these other activities, many of which are socially beneficial. Our interest is exclusively with the union as a group of workers who have been accorded the legal privilege of bringing collusive pressure on firms for the purpose of altering the wage contract in their favor, and with the over-all effects of its action.

roduction of collusion and the departures from pure competition described in this and the preceding chapter. In particular, we assume (1) that some of the firms operate under conditions of pure competition; (2) that the rest operate under one or another form of monopolistic competition (hereafter referred to as the noncompetitive firms); (3) that there is some collusion among firms; and (4) that all resource owners have zero price reservations. It follows from the assumption of pure competition (5) that collective bargaining can be practiced only in the noncompetitive sector of the economy. Finally we assume (6) that all firms in the noncompetitive sector agree to bargain collectively.

Under these conditions what effects will collective bargaining have on employment? on wages as a whole? on wages for comparable work? on profits? Will it lessen or increase personal inequalities in the distribution of the social output? Will it bring the economy closer to or carry it farther away from the position of long-run equilibrium which serves as our standard or yardstick?

*The employment effect.* The answer to the question regarding employment follows from our fourth assumption. The economy will continue to operate at the full employment level. Collective bargaining reduces the amount of labor and capital employed in the noncompetitive sector of the economy and increases the amount in the competitive sector.

*The effect on factoral rewards.* The rewards going to factor owners in the competitive sector are reduced.

The effect on the real incomes of wage earners, taken as a whole, and upon wage differentials will depend on how collective bargaining affects the volume of employment in the noncompetitive sector of the economy. Two outcomes are possible.

1. If most of the firms in the noncompetitive sector had been able, prior to the advent of collective bargaining, to secure from the competitive sector all the labor they needed at rates a trifle above those in that sector, their labor supply curves would already have been horizontal. Collective bargaining would simply raise these curves to higher levels. But wages represent a variable cost. Hence the marginal costs of these firms would rise, and they would cut production back to the scales at which marginal cost equals marginal revenue. Prices would rise and profits would decline.

The effect on prices, outputs, and profits would depend on the elasticities of the demands for the various products involved. High elasticities would lead to relatively large cut-backs in output, relatively small rises in prices, and considerable reductions in profits.

Conversely, low elasticities would result in relatively small reductions in profits and production, but relatively sharp price advances.

In either event there would be a transfer of labor and capital from the noncompetitive to the competitive sector. Wages in the competitive sector would fall, and interest would decline in both sectors. Wage inequalities would be increased. Given skills would command higher wages in the noncompetitive than in the competitive sector. Whether wages as a whole would be increased or decreased would depend on whether the absolute gains of the unionized workers exceeded the losses of the unorganized workers.

The personal distribution of the national income would be altered. This would produce a change in the flow of consumer demand which, in turn, would require changes in the operation programs of firms. Some industries would expand, while others would contract. The final result would not conform with our "ideal" competitive model. Furthermore, there would be a persistent and socially disturbing inequality in the rewards going to workers of comparable skills and merits, according as they worked for competitive or noncompetitive firms.

2. There is at least the possibility of a more favorable outcome if monopsony and oligopsony are widespread in the labor markets in which the firms in the noncompetitive sector of the economy hire their workers. In that event, collective bargaining would substitute horizontal for rising labor supply curves. And these, in turn, might make it profitable for the firms to hire more rather than less labor. Should that happen the transfer of resources out of the competitive sector would produce just the opposite effects on wages, interest, and rents from those just noted. The decline in rents and the fall in profits, interest, and managerial earnings might result in an increase in the proportion of the total output going to wage earners. There would, however, still be socially disturbing and ethically unjustifiable differentials in wages going to workers of comparable skills, depending on the sector of the economy to which they were attached.

The new equilibrium would be precarious. Workers from the competitive sector would seek employment in the unionized industries. The unions would face the same problem that confronts business cartels. To be really effective, they would have to be able to control entry into their organizations and to force the firms to employ only union workers.<sup>5</sup>

**Labor-management collusion.** The most effective method of

<sup>5</sup> A union which is able to do this is known as a closed union.

enforcing this monopoly is through a joint agreement with the managements of the firms with which the unions have contracts. These firms can well afford to pay generous wages if the unions can guarantee (a) that all the firms in the agreement will pay the same wages and (b) that any new firms entering the field will have to pay these rates from the start. This situation reduces the temptation managements might have to evade their commitments and increases the difficulty of establishing new firms. In addition to the problem of raising capital, the interlopers would now find that they were up against the problem of getting an adequate supply of labor. True, there is an ample supply in the competitive sector available on favorable terms, but the representatives of the unions can make it difficult, if not impossible, for a new firm to assemble an effective work force. And even if the new firms succeed in assembling a work force, they will probably have to recognize the union and pay at least the union scale. Since a new firm is likely to lose money for the first year or two while developing a market for its products and breaking in its labor forces, the union can increase substantially the risks of entry.

When labor and management cooperate with a view to forcing completely uniform wage standards on all firms in an industry, collusion is to be inferred. Without this "collaboration," competition may be expected to break through and return the industry to the competitive sector of the economy. Labor-management collusion creates a type of monopoly that is peculiarly difficult to break down.

**Government-sponsored collusion in agriculture.** In 1933 the Congress undertook to help the farmers.<sup>6</sup> For more than a decade, per capita incomes in this most competitive sector of the economy had been substantially less than that in the nonfarm sector, and several million small farmers on marginal or submarginal lands were in acute distress. Beginning in that year the government started on a price support and output restriction program. The purpose was to provide farmers with incomes equal to those prevailing in other sectors of the economy. Conduct which had hitherto been prohibited was now authorized, and federal funds were used to induce compliance. A highly competitive industry was converted into a legal and quasi-compulsory cartel.

*The supporting theory.* The proponents of the program alleged that, although the farmer sold in highly competitive markets, almost everything he bought was produced and sold under noncompetitive conditions. Hence the terms of the exchange were held to

<sup>6</sup> The details of the farm aid program of the 1930s are given in Chapter 35.

be not only unfavorable, as evidenced by the low incomes of farmers, but unfair. If effective competition could not be restored to the markets in which he bought, then he should be granted the power to control the supply of the things he produced. But the hundreds of thousands of small and scattered producers of the various agricultural products which constitute American agriculture could not possibly agree upon and enforce a reasonable restriction program. The government would have to establish the program and enforce it.

Compulsory restrictions, so ran the thesis, would not only be "fair," but they would, in addition, improve the performance of the economy as a whole. This fortunate harmony between the farmer's interest and the national interest was said to be due to the inelasticity of demand for agricultural products. A relatively small restriction of output would lead to a relatively large rise in price. Supplies would still be adequate, but henceforth nonfarm households and the users of agriculture's industrial raw materials would have to pay "fair" prices. These prices would raise the farmers' income and thus provide a better market for the firms' catering to the needs of agriculture. The resulting expansion of demand would help revive business and thus increase the prosperity and well being of the nonfarm as well as the farm population. All would gain and none would lose.

*The theory appraised.* Under the assumption of our present model, this theory can be shown to be false.<sup>7</sup> The farmer's gain in purchasing power would be at the expense of other groups which would now have less to spend. Nonfarm consumers as a whole would lose. Firms catering particularly to the needs of the farm population (the manufacturers of agricultural machinery, for example) might gain temporarily, but, in that event, the losses of other firms would be all the greater.

A more serious objection to the program is its effects on the allocation of resources. The extremely low incomes of farmers were due, in the last analysis, as we shall see in a later chapter, to the fact that there were too many people trying to earn a living in agriculture, and that the exceptionally large size of the typical farm family resulted in such an annual increase in numbers as to keep farm incomes below nonfarm incomes. Parity income was a correct goal of public policy, but the method adopted was inappropriate. It encouraged more people to remain on the land than were re-

<sup>7</sup> As will be shown later, the withdrawal of these assumptions does not call for any important modification of this conclusion.

quired to satisfy the needs of consumers. At official "parity prices" it was profitable for farmers to produce more than consumers would buy. As a result, the government was obliged to develop an extraordinarily costly administrative machine for policing the program and for buying up and destroying, or selling at less than cost, or giving away the increased output that farmers managed to get out of their reduced acreages by improved farm practices.

The farmer's plight in 1933 required public action. We shall have more to say later regarding the farm problem. The point to note here is that we cannot escape from the adverse effects of monopoly and collusion in the industrial and commercial sectors of the economy by legalizing and supporting out of the public purse monopoly and collusive practices on the part of resource owners. A student sometimes arrives at a correct answer to a mathematical problem as a result of a series of compensating errors. A society cannot count on solving its problems by compounding errors in public policy.

### *Questions:*

1. Define collusion; describe the conditions on the side of supply and of demand that favor collusive practices; identify practices which the American courts have held to be collusive; show why collusion tends to break down unless it is legalized and enforced by government.
2. "From the point of view of the general interest, regulated monopoly is preferable to legalized collusion." Indicate with supporting reasons your agreement or disagreement with this statement.
3. "Collusion and monopoly, if long tolerated, cannot be eliminated by government without hurting many innocent people." Explain the basis for this statement.
4. "On balance the collusion and monopoly prevalent in the United States during the second half of the 19th century may actually have benefited the vast majority of the American people."
  - (a) Explain the reasoning needed to support this statement.
  - (b) Does this reasoning justify toleration of collusion and monopolistic practices in the United States at the present time?
5. Discuss the employment, wage and distributional effect of collective bargaining on the following assumptions:
  - (a) that all firms operate under conditions of pure competition both in their product markets and their resource markets;
  - (b) that all firms operate under conditions of pure competition in their labor markets but that some operate under one or another form

of monopolistic competition (or collusion) in their product markets; (c) that all firms operate under conditions of pure competition in their product markets but that some are monopsonistic or oligopsonistic with respect to their labor markets.

6. Can any of the conclusions you reached in answering question 5 be used to support the following proposition: "On balance the development of strong trade unions during the second half of the 19th century would have benefited the vast majority of the American people."
7. "American farm policy from 1933 on provides an example of the economics of collusion." Do you agree or disagree? Justify your answer.

## *Effective Competition*

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OUR account, up to this point, of the way in which an enterprise system is supposed to work presupposes the existence of competition. But is the American economy competitive? If not, can it be made competitive? If it cannot be made competitive, what alternative forms of economic organization are there from which to choose? Our answer to the last question is reserved to chapters 43, 44, and 45, where we examine three alternatives to competitive capitalism. In this chapter we seek answers to the first two questions.

**Review of the ground covered.** In Chapter 6 we identified various concepts of competition. Our first and very rough definition was formulated in terms of results. Competition was said to exist in a given market whenever each seller in that market could improve his own economic position only by offering more for less. Recognizing the difficulty of applying this test for the purpose of analyzing the behavior of the individual firm, we pointed out that economists have increasingly turned to the study of market organization or market structure for guidance in predicting how firms will behave in given situations. To this end, they have developed the concepts of "ideal" and "pure" competition, and deviations from pure competition. All of these definitions are conceived in terms of market organization. Finally, it will be recalled that we defined "market" as a process of exchange involving goods and services, buyers and sellers, area or place where the process occurs, and time.

In Chapters 7 through 15 we studied how the forces of supply and demand, operating in commodity and resource markets, will, if pure competition prevails, (a) allocate resources, (b) determine the totality of the things produced (output), and (c) distribute this output among resource owners. This analysis provided us with

the concept of general equilibrium. In an economy in general long-run equilibrium, output would be at a maximum, input in terms of real sacrifices or costs would be at a minimum, and the claims on the output would be divided among resource owners in such a fashion that no resource owner could improve his position by shifting his resources to an alternative use.

In Chapters 15 and 16 we compared these results with those to be expected in the event of departures from pure competition. These departures we identified by the rather sinister-sounding words monopoly, oligopoly, monopolistic competition; their counterparts, monopsony, oligopsony, and monopsonistic competition; and finally collusion.

The policy implications of this analysis are clear. Given the assumptions of a closed and stationary community in which there is no population growth and no change in the arts (technological progress), the interests of all the people, and hence of the community itself, will be best served if pure competition prevails. Hence the primary economic function of government should be to promote pure competition.

This analysis recognizes that the functionally correct distribution of rewards may result in such large personal inequalities in incomes (because of the very unequal endowments of individuals and the existence of the right of bequest or inheritance) that the people as a whole might be happier if some way could be found of inducing those favored by nature or nurture to help those who, for one reason or another, can bring resources of little economic significance to the market. This possibility suggests that, if the majority of the people in the community hold this view, the best procedure would be to allow incomes to be distributed first by pure competition, and then redistributed by government through its power to tax and to spend. Thus the inevitability of considerable income inequality in an enterprise society does not call for any modification of the conclusion that the primary economic function of government is to enforce pure competition.

**The purpose of this chapter.** We now withdraw the limiting assumptions of a stationary population and a given and unchanging body of technological knowledge and ask whether this policy conclusion needs to be modified.

We know that nothing approximating pure competition has ever prevailed in the American economy, or in that of any other national economy, past or present. The fact that pure competition has never

prevailed has produced three different reactions among economists and the public generally.

One group, enamored of the picture of an economy dominated by pure competition, argues that the State can and should create markets in which economic behavior will be forced to conform as closely as possible with that which would prevail under pure competition. They are against bigness in all its forms—big business, big labor, and big government. Our appraisal of this position will emerge in connection with our discussion of the views of the third group.

A second group, likewise wedded to the concept of pure competition, holds that market imperfections are so widespread and so deeply rooted in the institutions of private property and private enterprise that the only proper procedure is to scrap private capitalism entirely. They would replace it by a type of socialism in which the State, through its ownership and control of private property, will be able to bring about the same results that would prevail under purely competitive capitalism if the “bourgeois” or capitalistic State were prepared to redistribute functionally determined incomes with greater reference to individual needs. We shall examine this possibility in Chapter 44.

The third group holds that in a growing and dynamic economy the concept of pure competition is useful as long as it is recognized for what it is: a means of indicating the position toward which the economy should be moving. It becomes dangerous if it is used to suggest public controls designed to make markets conform with the ideal markets of pure competition. The proper tests for control should be based on performance. This group would therefore substitute a somewhat nebulous concept of “effective” or “workable” competition as the goal toward which public policy should be directed.

The purpose of this chapter is, first, to explain why an economy which is to remain dynamic and progressive, capable of providing more things for more people at lower real costs, must necessarily deviate from the pure competition model; and second, to appraise the charge that the American economy is becoming progressively less competitive.

**The impossibility of pure competition.** There are many reasons why a progressive and productive economy can never conform to the specifications of pure competition. Consumers are never completely indifferent to anything but price. The personalities of a storekeeper and his clerks are important. Courtesy does and should

pay dividends. Employees are interested in more than wages and various external conditions of employment like sanitation and safety devices. Businessmen differ in their ability to enlist loyalties, and again it is desirable that firms under good leadership should grow at the expense of those under less capable leadership. Nor do consumers really want their range of choice narrowed by the product standardization that is one of the assumptions of pure competition. Product differentiation encourages consumption and, over a period of time, improves the quality of consumption, which, after all, is one of the main purposes of production. Furthermore, it enormously fosters the technological progress that must go forward if the level of living is to rise in a country with a growing population.

It is unrealistic to expect in the real world that the number of suppliers in every market shall be so numerous that the action of no one of them can affect market price. In many lines of production the number of suppliers must be so small, if the economies of size are to be realized, that each supplier knows and must take account of the fact that any substantial modification of his output will affect market price and lead to adjustments by the others. The management of a firm must always weigh the immediate advantages or disadvantages of its decisions against longer-run consequences. Charging all that the traffic will bear at every instant of time, shifting orders from one supplier to another on the basis of insignificant differences in quotations, would destroy the element of good will which every successful firm strives to build up.

Much of the sunk capital of a firm is durable, specialized, immovable, and indivisible. Changes are necessarily infrequent and, when made, have to be made on a considerable scale. This means that in a world of change most plant is either too small or too large, and much of it is not located at its optimum geographical position. Only at the moment of decision has a firm a reasonably wide range of sites from which to choose. The choice itself may be influenced by noneconomic considerations—the residential preferences of key personnel, for example—or by a faulty analysis of the locational forces to be taken into account. And even when the original choice was correct, dynamic forces may soon change the situation. It must compete as best it can against newcomers who can choose a better site and take advantage of recent development affecting equipment and plant layout. Situations of this sort create a continuous threat to existing firms in the form of *potential competition*. A formal description of the structure of a market, in terms of the number of

*existing* suppliers and the proportion of the total output provided by each, can never capture the reality of potential competition.

Furthermore rapid technological progress brings with it a type of competition which was perforce ignored in our study of pure competition in a stationary economy. We refer here to the *competition of substitutes*. Here is a pervasive force constantly undermining even the most entrenched monopoly positions.

A description of market structure, *as it exists at a given time*, cannot possibly capture the impact of these two dynamic forces—potential competition and the competition of substitutes—upon managerial decisions.

In view of all these circumstances the behavior of firms and of consumers cannot possibly conform precisely with the postulates of pure competition. All that this concept can do (and this justifies its use) is to identify the nature of the pressures at work and the direction of the adjustments which human beings in their roles as consumers and resource owners will find it advantageous to make, if artificial deterrents to action are not protected by law.

The maneuvering, the attempts to differentiate their products by advertising and by special servicing, the researching for new and better methods of producing and marketing goods and services, all are responses to these constant pressures.

**How competitive is the American market?** The answer to this question depends to a considerable extent on the meaning we attach to the word “competition.” If we insist that any departure from pure competition represents monopoly, we shall have to admit that the American economy is not now and never has been competitive. There is increasing recognition, however, that competition does not have to be pure in order to be effective. Professor J. M. Clark of Columbia University<sup>1</sup> suggests that public opinion should be more concerned with maintaining what he calls “workable competition” and less with condemning every departure from pure competition as evidence that private capitalism is a failure. Professor Slichter of Harvard asserts flatly the superiority of monopolistic competition “because it is broader and stimulates improvements in products as well as improvements in processes.”<sup>2</sup> Professor George Stigler’s investigations of the monopoly-competition problem in the United States has led him to the conclusion that “competition de-

<sup>1</sup> J. M. Clark, “Toward a Concept of Workable Competition,” *American Economic Review*, Vol. XXX, No. 2, June, 1940, pp. 241-56.

<sup>2</sup> Professor Slichter, *The American Economy: Its Problems and Prospects*, Knopf, New York: 1948, p. 15.

clined moderately from the Civil War to the end of the nineteenth century, and thereafter increased moderately." He finds no convincing evidence in support of the popular thesis that "competition has been declining steadily (and in many versions, drastically) for a half century or more."<sup>3</sup>

The Brookings Institution has recently completed an intensive factual study of the performance of the American economy and has come to the conclusion that it is highly competitive.<sup>4</sup> In *Big Business*<sup>5</sup> David Lilienthal, for 13 years head of the federal government's giant TVA operations, and later Chairman of the Atomic Energy Commission of the United States, the largest industrial monopoly of history, has admitted that his early conceptions regarding the behavior of our giant corporations do not fit the facts of today. He flatly declares that Big Business has introduced a new, vitalizing, and socially beneficial type of competition that is superior in every way to the type of competition suggested by the analytical concepts of competition found in most American textbooks on economics. He claims that, perhaps unwittingly, the economists' terminology has done much to discredit modern business in the public mind. Thus, he writes:

One reason the very existence of Bigness is so often assumed to be monopolistic is the use the scholarly economist makes of the term "competition"—to express an abstract concept of competition of many small units. This conceptual use of the term, and the invention by economists of other and distinguishing terms such as oligopoly, duopoly, imperfect competition, . . . etc., has tended to obscure the fact that rivalry between a few big units is definitely competition. Thus a popular misuse of a theoretician's term has led to unsound public policy and confused thinking by laymen—in short, has been injurious to the public interest.<sup>6</sup>

The late Professor Schumpeter, one-time Finance Minister of the Austrian Republic and later the successor to Professor Taussig at Harvard University, was particularly emphatic regarding the reality of competition in the United States. In *Capitalism, Socialism, and*

<sup>3</sup> George J. Stigler, as reprinted in A. G. Gayer, C. Lowell Harris and Milton H. Spencer, *Basic Economics: A Book of Readings*, Prentice-Hall, New York: 1951, p. 211.

<sup>4</sup> *Big Business in the Competitive System*, The Brookings Institution, Washington: 1953.

<sup>5</sup> David E. Lilienthal, *Big Business: A New Era*, Harper & Bros., New York: 1952-3.

<sup>6</sup> *Ibid.*, p. 55.

*Democracy*,<sup>7</sup> perhaps the most significant study of comparative economic systems which has appeared in this generation, Schumpeter examined the pessimistic implications of the theories of "imperfect" competition. His conclusion was that, although they were quite accurate as a picture of the performance of the American economy at any moment of time, they were extremely misleading as a picture of that same economy *in motion*. When the economy is studied as a moving picture, the record reveals the persistent presence of monopoly profits of one sort or another, but the significant fact is that the sources from which these profits rise are continuously changing. The dynamic forces in the economy are constantly destroying old monopolies and, as constantly, are creating new ones.

Schumpeter's thesis is that, when capitalism is studied as an economy in motion, it becomes clear that its very imperfections are what keep it dynamic and progressive. The successful businessman is, *par excellence*, the agent of progress. He is an innovator. He has that rare combination of courage, self-confidence, and imagination which leads him to bring together the factors of production in new and more fruitful ways. Many of these new ways require large fixed investments, huge gambles on consumer reactions, and hence enormous risks. Once liquid savings are frozen into specialized plant and equipment, it takes years to get them out through the slow processes of amortization. On the other hand, obsolescence starts in immediately. There are bound to be "bugs" in new machines which only come to light when the machines are put into actual use. An improved plant layout does not long represent the last word; actual operating experience soon suggests improvements. Most plant is not located in the precise place where management would locate it if the decision could be made anew. *What is* is always inferior to *what might be*. The risks of innovation would be prohibitive if potential competitors could always wait for the innovators to try out the new and then avoid their inevitable errors and take advantage of the equally inevitable shortcomings in the translation of plans into plants. It is the very fact of short-run profits and, still more, the largely illusory hope of making monopoly profits extending over long periods of time that are needed to keep alive the spirit of enterprise.

As long as the environment is kept favorable to risk-taking, the accelerating progress in the pure and applied sciences continuously

<sup>7</sup> J. A. Schumpeter, *Capitalism, Socialism, and Democracy*, Harper & Bros., New York: 1942.

opens up new and more effective ways of satisfying old and familiar wants and, what is far more important, of *creating* and satisfying wants that had hitherto been outside the realm of practical possibilities. This dynamism constantly destroys old monopolies and as constantly creates new ones. Meantime it increases enormously the range of consumer choice. It provides spice and variety to life.

Profits, according to Schumpeter, are the rewards going to those who promote change. Thus the functions of profits are, on the one hand, to destroy profits in areas where change and growth are temporarily absent and, on the other, to direct capital and innovating talents into those areas where the situation is ripe for change. Moreover, profits provide an important part of the funds needed to finance new developments. It is precisely the imperfections of competition in the short-run that keep the economy dynamic, growing, and competitive in the long-run. Patents, secret processes, brand names, lavish advertising, and the collusive understandings between firms (which tend to be more honored in the breach than the observance), all these, says Schumpeter, are maneuvers to protect heavy investments from "the perennial gale of competition." Their justification is that they sometimes divert the strong winds of competition long enough for the suppliers of risk-capital to recover a reasonable part of their investments before new techniques and new products blow down the fragile barriers. Remove the expectation of monopoly profits, and capitalism collapses. This, in brief, is Schumpeter's thesis.

**General conclusion.** If this thesis is correct, departures from pure competition are not to be regarded as evidences of the decay of competitive capitalism. But why then did we study production and pricing under the unrealistic and unrealizable conditions of pure competition? The answer, to repeat, is that the concept is useful for analyzing the behavior of the firm and the trade union, which is, from a strictly economic point of view, an agency for marketing the services of labor. The theory permits us to predict the direction of changes that tend to occur as dynamic forces drive an economy away from its general equilibrium position, and to suggest public interventions which will help restore equilibrium without unduly weakening the dynamic forces that are always present in a free society. But the controls should be geared to the end sought and not to the creation of the types of imaginary markets used in explaining the formation of prices under conditions of pure competition. The Schumpeter thesis suggests that we should not become unduly alarmed by monopolistic maneuvers, provided they

do no more than slow down the powerful motor of the capitalistic engine. A high-powered automobile needs brakes, as well as an engine. And, as we shall see when we examine the problem of social security, its performance will be all the better if it is equipped with good springs to carry the passengers in reasonable comfort over the rough patches in the road the car must travel.

We now proceed to an examination of capitalism in action. This requires that we remove, one by one, the remaining assumptions which have governed the analysis up to this point. We start by withdrawing the assumption of isolation.

### *Questions:*

1. "Given the assumptions of an isolated and stationary economy in which all economic activities conform with the requirements of pure competition, the primary and virtually the sole economic function of the State is to enforce competition."  
Explain the supporting reasoning.
2. "The concept of pure competition has contributed materially to the break-down of popular confidence in the workability of the private enterprise system. Economists should abandon it even as a teaching device."  
(a) What is the basis for the charge made in the above statement?  
(b) Explain why economists who admit that there is an element of truth in the charge nonetheless regard the concept of pure competition as useful both for teaching and for policy making purposes.
3. "It is precisely the imperfections of competition in the short-run that keeps an economic system dynamic, progressive, and competitive in the long run."  
(a) Identify some of the imperfections implied in the statement above and argue for or against its validity;  
(b) Argue for or against the proposition that the argument encompasses strong collective bargaining as one of the imperfections which improves the long-run performance of a competitive enterprise system.

## *General Equilibrium: Regional and International*

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OUR interest in this chapter is in determining whether the price mechanism that we have been studying works toward the establishment of a general equilibrium in a world divided into a large number of independent states. No one of these states possesses the diversity of resources which will permit its people to enjoy all the advantages of specialization if their right to trade with people in other states is restricted. We know that national levels of well being differ enormously at the present time, and that the gap between the richest and the poorest countries is wider now than it was 200 years ago. Is this gap due to the private enterprise system or to interferences of national governments with the international functioning of the price mechanism? The final answer must wait until we examine in a later chapter problems in the field of international economic policy. Here we confine ourselves to noting how greatly national levels of well being differ from country to country, identifying some of the principal economic forces responsible for these differences, and showing why the private enterprise system has not been able to close the widening gap. We continue to disregard governments despite the fact that governmental interferences may be partly responsible for the present situation. What we want to show is that the task of equalizing factorial rewards throughout the world would be long and arduous even though the world were a political unit within which labor, capital, and entrepreneurship could move as freely as they are able to move within the confines of the United States.

**REGIONAL INEQUALITIES: SOME FACTS**

Differences in per capita money incomes provide a rough indication of regional differences in levels of living.<sup>1</sup> The indication is necessarily very rough because it makes no allowance for differences in the personal distribution of incomes within countries and because the measurement of a nation's total income involves considerable guessing. If two countries have equal per capita real incomes, the general level of living will be higher in the one with the more equal distribution of wealth. Whether it will remain higher is another matter. That will depend, to a considerable extent, upon the rate of capital formation. If, as is likely, the more unequal personal distribution leads to higher rate of capital formation, the mass of the population in the country with the more equal distribution will fall behind. The other shortcoming of national income figures is their inaccuracies. These inaccuracies increase as we pass from the wealthier to the poorer and less developed countries. There are several reasons for this. (a) In the first place, an unusually large proportion of what families in poor countries consume is produced within the household. Since these goods and services do not appear on the market, they do not get registered and counted. Their production and consumption lie outside the capitalistic system. The margin of error in estimating this aspect of consumption is particularly large in predominantly agrarian countries, and, as we shall see later, countries with very low levels of living are predominantly agrarian. (b) In the second place the collection of income data is primarily the by-product of administering the regulatory and fiscal functions of the State. Income tax laws yield a rich harvest of data essential to estimating the national income. Primitive countries either have no income taxes or administer them with notorious inefficiency. (c) In addition, the technical competence of the statistical staffs of poor countries tend to be lower than that of wealthy countries. For all these reasons monetary data on levels of living in different countries are likely to exaggerate differences in levels of living. (d) Finally the data do not and cannot measure differences in the satisfactions or the psychic incomes of peoples.

The following table gives the estimates of one of the most competent specialists in the field of national income estimates.

Discount the figures as we may, the fact remains that life is a great deal more comfortable in some parts of the world than in others.

<sup>1</sup> See Chapter 15 for the definition of this term.

TABLE 19-1

AVERAGE REAL INCOME PER EMPLOYED PERSON IN INTERNATIONAL UNITS, 1925-1934 <sup>2</sup>	
United States	1,381
Canada	1,337
New Zealand	1,202
Great Britain	1,069
Argentina	1,000
Netherlands	855
Sweden	653
Czechoslovakia	455
Hungary	359
Japan	353
Yugoslavia	330
U.S.S.R.	320
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### NATIONAL INEQUALITIES: THE CAUSES

The causes of differences in levels of living among nations of the world are many and complex. The main obstacles to equalization are social, cultural, and political, rather than economic. Nonetheless the following economic causes are important and need to be considered by those formulating plans for improving conditions in the poorer parts of the world: (a) inequalities in the geographical distribution of natural resources; (b) differences in the ratios of population to natural resources; (c) differences in the ratios of populations to artificial capital; (d) differences in rates of population growth; (e) differences in rates of capital formation; (f) differences in rates of technological progress; and finally (g) the sluggishness of international and interregional capital and population movements.

(a) **The geographical distribution of natural resources.** Natural resources (land in the broadest sense) are immobile, and they are distributed very unevenly over the globe. Some are inexhaustible under wise management; others are not. In any event, labor and capital must be applied to them where they are.

<sup>2</sup> Quoted by Emil Rieve, *International Labor Standards, A Key to World Security*, published by Textile Workers Union of America, CIO, New York n.d. from Colin Clark, *Conditions of Economic Progress*, Macmillan, New York: 1940, pp. 41-42.

*Mineral resources* are exhaustible. Some, however, are so abundant and so widely distributed as to raise no special problems. Others are relatively abundant but so concentrated as to give the people in the areas involved a marked advantage over their neighbors. The combination of coal, iron, and limestone in the Ruhr and Lorraine basins makes that region the industrial heartland of the western half of continental Europe. England has been called a lump of coal floating off the west coast of Europe. The industrial pre-eminence of 19th century Britain was founded on coal. So accessible was it, and so cheaply could the complementary raw materials be brought to England, processed, and distributed to the four quarters of the earth by water, the most economical of all forms of transportation, that this asset alone offset Britain's lack of other raw materials. The Pittsburgh area of the United States is similarly founded on coal. On the whole, gold and silver, and other precious metals, are found in areas so unfavorable otherwise as to prevent excessive population growth. The vast quantities of oil that lie below the exhausted and arid soils of the Near East have as yet contributed little to the well being of the peoples of that region.

Several points about the world's mineral resources are to be noted. One is that they are not assets until their presence is known and techniques have been discovered and capital and management found for converting them to human use on profitable terms. At the present time only a portion of the world's natural resources are so located as to warrant economic exploitation. The rest are sub-marginal. People occupying an area with an abundance of *usable* natural resources have a better chance in life than people in less favored areas. Whether, in fact, they enjoy a higher level of living will depend on the values that dominate the society and on the closely related factors of population pressure (which we shall consider presently) and technology.

The abundant bauxite deposits of Arkansas were long used as road fill. Recent technical developments have made them a valuable raw material for an expanding aluminum industry. The interior of Africa is said to be rich in minerals. Given the climate and the primitive technologies of the natives, they contribute little at present to human welfare there or anywhere else.

A second point to note is that minerals are exhaustible. This is of little consequence until the date of exhaustion draws close. Then an area heavily dependent on a single exhaustible resource faces an extremely difficult problem of adaptation.

England's future is somber in part because of the fact that her most accessible deposits of coal have been worked out. Her people must now compete with peoples where coal and power generally are obtainable on more favorable terms. The richest and most accessible of the fabulous iron ore deposits of the Lake Superior region are said to be approaching exhaustion. If so, part of the population of the area will have to migrate, or accept lower levels of living, unless, as now appears likely, new and low cost techniques can be developed for extracting ore from deposits heretofore regarded as submarginal, or unless people in more favored parts of the country are willing to support them through grants-in-aid.

*Water* belongs in the broad category called land. Its importance in agriculture is discussed later. Here it suffices to point out that rivers, gulfs, bays, and the oceans are important as sources of food and power, as well as avenues of transportation. People favorably located with respect to water will have an economic advantage, other things being equal, over those who lack this versatile resource.

*Soils* may be destructible or indestructible, depending on how men use them. Archaeological expeditions have revealed the existence of elaborate civilizations in what are now waste lands. For some reason or another, the soils were not maintained. Many a vanished civilization appears to have been the victim of soil erosion, and the process is still going on. Human habitations, for example, have largely disappeared from the county in Mississippi which led the world in production of cotton per acre in the 1850s.

The spatial distribution of good soils is very uneven. In general, according to soil experts, only a small fraction of the earth's surface constitutes really good agricultural land in the sense that climate, rainfall, slope, mineral content, and organic composition of the top soil combine to assure good crops year in and year out under intelligent management.

The soils of Prussia are thin and sandy by comparison with those of France. Within the United States only some five percent of the land area was rated as Grade 1 for agricultural purposes in a survey made in the early 1930s.<sup>3</sup> Eleven, 18 and 16 percent were classed as Grades 2, 3, and 4 respectively; almost one-half fell in the fifth and lowest grade of submarginal land. Furthermore the various grades are present in very different proportions in the various parts of the United States. The single state of Iowa, according to this survey, had more Grade 1 land than was to be found in the 11 states of the Southeast.

(b) **Population-natural resource ratios.** There is no necessary reason why national differences in the quantity and quality of natural

<sup>3</sup> *National Resources Board Report of December 1, 1934*, (Government Printing Office), Washington, Pt. II, p. 127.

resources should result in differences in national levels of living. The latter depend upon the marginal productivity of the labor and capital applied to these resources. If the population in a poor land area is scarce, but has at its disposal ample and appropriate artificial capital, the marginal productivity of labor will be high, and the general level of living will also be high. The existence of fertile lands, on the other hand, provides no guarantee that the people will be well off. Numbers and the lack of capital can spell poverty for most of the residents of such an area.

(c) **Population-capital ratios.** A country with an unfavorable population-land ratio can have a high per capita output and a high level of living if the working population is backed with adequate tools and business leadership. But these things are not easy to obtain. Business leadership depends on a high level of education for workers and for the leaders. Such an educational system is expensive. The tools can be created by saving and investing local surpluses, or by borrowing from wealthier countries, or by political aid from people in more fortunate areas. Foreign know-how can also be hired, but the work force must be found locally and must be induced sufficiently to want the things which modern tools can provide and to abandon old work habits. This means that the foreign aid must somehow succeed in raising standards of living faster than levels of living; it must, in other words, create enough discontent with things as they are to bring about changes in social and economic institutions favorable to increased production, and yet not so great as to provoke disorders in which part of the existing wealth is destroyed by mass violence. The task of improving conditions in the so-called underdeveloped countries of the world is challenging but extraordinarily delicate. Foreign political "hand-outs" can help if they do not arouse excessive expectations and if the beneficiaries realize that they cannot count on their continuing long enough to have much of an effect on existing national disparities. The main job has to be done by the people themselves. Saving, investing, and borrowing from abroad on commercial principles are less pleasant but much more reliable methods of raising a nation's level of living. Saving is hard at the start since there is little surplus available. Borrowing abroad is a quicker and an easier way. The success of the borrowing method depends upon the willingness of the borrowers to use part of the outside capital to establish enterprises producing for export markets, and upon the willingness of the people in the lending countries to buy more from abroad than they sell when the interest payments on old loans exceeds the

new investments they are prepared to make. Otherwise, foreign borrowing ends in defaults.

The vast majority of people are living today in areas in which both the population-land ratio and the population-capital ratio are unfavorable. Consequently, the productivity of labor is very low, and any early and marked improvement in the general level of living is unlikely.

(d) **Differences in rates of population growth.** The high birth rates usually found in these underdeveloped areas constitute an additional handicap. As a general rule, natural rates of population growth vary inversely with levels of living. The lower the marginal productivity of man as a worker, the higher appears to be his biological productivity. The more poverty-stricken an area, the higher in general is the birth rate. If the populations in such areas do not increase very rapidly, it is due to the fact that the death rate is also very high. As long as the birth rate remains high, capital accumulation and investment can do little more than prevent the level of living from falling.

Table 19-2 shows the perverse relationship between poverty and human fertility in two parts of Europe and suggests the relationship between industrialization and economic well being. The first six countries, all predominantly agricultural, are located in Eastern and Southeastern Europe. The second group of six countries are located in Western and Northern Europe. The countries in this group had mixed economies with a good balance, except for the United Kingdom, between agriculture, manufacturing, and the service trades, and a substantial amount of artificial capital to back up their workers in all three branches of economic life. Per capita real incomes are not shown, but it is well known that the levels of living in the industrial countries were much higher than those in the agrarian countries.

Particularly significant are the differences in the net reproduction rates in column 3. They show that the populations of the agrarian countries would increase by about 20 percent per generation in the absence of migration, after their age distributions have become normal. Since France has long had a stationary population its age distribution may be regarded as normal; 25 percent of its population is under 14 years of age, and this is typical for the other countries in this group. For the agrarian countries the percentage of the population under 14 ranged from 32 percent in Greece to 41 percent in Turkey. Thus their populations would continue to increase for some time after their fertility rates had fallen to unity. During the 1930s population was increasing three times as fast in Eastern and Southeastern Europe as in Western and Northern Europe.

It is worth noting that there are comparable differences in rates of

population growth within the United States. The net reproduction rate in the South exceeded that in the Northeast by 50 percent in the period 1930-34, and by approximately 30 percent in the period 1942-47. (*Statistical Abstract of the United States*, 1948, p. 55.) In 1947 the per capita

TABLE 19-2  
EUROPEAN COUNTRIES: POPULATION GROWTH AND  
THE IMPORTANCE OF AGRICULTURE \*

Country	Percent Increase in Population (1932-37)	Age Distribution: Percent Total Population (0-14)	Net Reproduction Rate †	Percent Occupied Population Engaged in Agriculture
	(1)	(2)	(3)	(4)
Bulgaria	6.2	35	1.2	81
Greece	7.0	32	1.2	54
Poland	5.8	33	1-1.2	76
Roumania	6.0	36	1.2	78
Turkey	12.6	41	—	—
Yugoslavia	7.7	35	—	79
Belgium	1.8	22	0.8	17
Denmark	4.2	25	0.8-1	35
France	0.2	25	0.8-1	36
Germany	3.2	24	0.8-1	29
Sweden	1.6	22	0.8	36
United Kingdom	2.0	22	0.8	6

\* The figures in this table are derived from the statistical Yearbook of the League of Nations, the International Year-Book of Agricultural Statistics (International Institute of Agriculture) and Population and Agriculture with Special Reference to Agricultural Overpopulation (Ser. L.O.N.P., European Conference on Rural Life, No. 3). The figures in col. 2 refer to different years (in most cases in the 'thirties) and are thus not strictly comparable. Those in col. 3 are quoted in *Population and Agriculture, etc.*, from works by R. R. Kuczynski, D. V. Glass, and C. P. Blacker.

† The United States Bureau of the Census uses the ratio of children under 5 per 1,000 women of child-bearing age for determining the net reproduction rate. This rate indicates with considerable accuracy how many daughters will be born "to the survivors of a group of 100 female infants during the course of their lifetimes if present age specific birth and death rates should continue unchanged. A rate of 100 would indicate that, on the average, the survivors of such a group of 100 would give birth to 100 daughters. Since these daughters would be just enough to replace the original cohort of mothers, the population would remain stationary—in the next generation. If the rate were higher than 100, however, it would indicate that the population would increase from one generation to another, and if it were lower than 100 it would indicate that the population would decline. All these assumptions are contingent upon the continuance of the same birth and death rates as those observed when the computation was made." (Release of February 21, 1941. Series P-5, No. 4.)

income in the Southeast was \$883 as compared with \$1,444 in New England and \$1,559 in the Middle East. (*Survey of Current Business*, U. S. Dept. of Commerce, Sept. 1948, p. 17.)

(e) **Capital growth differentials.** Another difficulty which the price mechanism must overcome if it is to equalize factoral incomes throughout the world is the differences in national rates of local capital formation. It is very much easier for people in wealthy countries, with their relatively low reproduction rates, to increase the quantity and improve the quality of their capital equipment than it is for the people in poor countries with their very much higher rates of population growth. Hence it is safe to say that capital growth, in so far as it depends on local and *voluntary* saving and investing, tends to widen national level-of-living differentials. Only under a brutal and authoritarian regime is it possible for a poor country to match the rate of voluntary saving that prevails in a wealthy country. This fact makes it reasonably certain that the large income differentials that now prevail in the free world outside the orbit of Russian influence will increase rather than decrease, in so far as this particular factor is at work.

(f) **Differences in rates of technological progress.** No less important than the factors so far considered are national differences in public attitudes toward technological change. In some countries rigid and unyielding folkways render it unprofitable for producers to introduce new products or new ways of making old products. Innovation is stifled. In others, and perhaps more so in the United States than in any other country, consumption habits and production practices are reasonably flexible. This flexibility reduces the resistance to change and creates an environment favorable to technological progress. As a consequence, the productivity and hence the levels of living in countries with favorable environments tend to draw farther and farther ahead of the levels in more conservative countries.

(g) **Immobility of the factors of production.** Gross national inequalities could not persist if labor and capital were completely mobile. In that event, savings, regardless of their points of origin, would be invested where their marginal productivity was highest, and workers would move from areas where their marginal productivity was low to areas where it was high. Something like this actually happened during the 19th and the first decade of the 20th century. Men could and did move in large numbers from one part of the world to another. After World War I, however, movements

of population between countries were sharply restricted for a variety of reasons, partly social and partly economic. Henceforth, the price mechanism had to accomplish its equalizing function without one of its most important gears. It was doubly important, therefore, that the decreased mobility of labor should be offset by increased mobility of capital, if the equalization process were to continue. Unfortunately this did not happen. The wealthy countries reduced the borrowing capacity of the poor countries by their restrictions on imports, while the growing spirit of nationalism in the poor countries led to the imposition of discriminatory taxes and vexatious controls which further discouraged international capital movements. By the outbreak of World War II the international mobility of labor, capital, and know-how had largely disappeared.

### **CAPITALISM AND THE WIDENING INTERNATIONAL GAP**

The forces making for geographical inequalities are so powerful that the gap between the wealthy and the poor countries may well be wider fifty years hence than it is today. This is not the fault of private capitalism as such, but rather of its unequal rate of diffusion from its point of origin in Western Europe. It requires a peculiar type of environment because of its very nature. It is dynamic; it is a destroyer of ancient customs; it is continually creating new wants and devising new and better ways of satisfying new and old wants alike. It emphasizes and depends on the spirit of individualism; it appeals to man's ingenuity; it rewards the innovator; it eliminates the incompetent; it places resources in the hands of the able and ambitious; it whips up our appetites and forces us, by extravagant bribes and penalties, to subordinate our preferences as workers to our preferences as consumers. In brief, it can operate effectively only in a society which is reasonably hospitable to change and risk-taking.

In most of the heavily populated countries of the world the penetration of private capitalism was very slow because it was unable to break through the traditional ways of doing things. The peoples or their rulers simply did not want the products of the capitalistic machine earnestly enough to submit to its disciplines. Ancient folkways persisted. The clan, the tribe, the social group were the important entities. Individualism was decried. The social ambitions that led people in the West to restrict the sizes of their families were largely absent. In such environments birth rates remained high. As a consequence the impact of modern capitalism exhausted itself in a decrease in the death rate. The capitalistic engine, in so

far as it was operative, simply made it possible for larger numbers to survive at approximately the same levels of living as before.

**Malthusianism.** What has been happening in most parts of the world confirms a prediction made more than 150 years ago by Thomas Malthus, a British clergyman and a close student of the population problem. He contrasted the very slow growth of the population of Western Europe with the extraordinarily rapid growth of population in the American colonies, as recorded in the annual reports of the Governors, running back over several generations. These records convinced him that the population of a fertile but unsettled area not only could but would double every generation as a result of an excess of births over deaths until such time as pressure of numbers led to a decline in the rate of increase in the food supply. When this point was reached (we should now call it the point of diminishing returns) the "niggardliness of nature" would force the rate of population increase down to the much slower rate of increase in the food supply. The decline would not be the result of a fall in the birth rate but of a rise in the death rate as the amount of food per person declined. In the course of time, men everywhere, he predicted, were condemned by their inability to exercise sexual restraint to live in the same abject poverty that had been man's lot from time immemorial. Only an elite, he thought, could escape from this impasse as a result of their willingness to limit the size of their families. And they could not escape, he argued, if the majority took away from them the surpluses which were due to their self-restraint.

Only in the countries that accepted the culture of the West, including private capitalism, did Malthus' somber forecast prove false. How did the West escape? The escape appears to have been due in part to the enormous increase in per capita output made possible by modern capitalism. "Levels of living" were lifted and held up in the face of growing numbers long enough to get translated into higher "standards of living," which increasing numbers were willing to defend by voluntary limitations on the sizes of their families. Malthus failed to realize that the sexual restraint that only his elite were expected to practice would spread rapidly to wider and wider groups as the discovery of cheap and relatively effective contraceptives reduced the need for the difficult types of self-restraint which he had in mind.

Political leaders in many of the poor countries see in rapid industrialization the key to the problem of poverty. They are unaware that industrialization means more than machines. It requires

a particular kind of culture and, above all, if it is to bring lasting material benefits to the broad masses, a willingness to grapple effectively with the population problem.

### GROWING INTERNATIONAL TENSIONS

Western capitalism has whetted the appetites of people everywhere for the material comforts that the capitalistic engine makes possible. It has thus sown the seeds of discontent that must be present if peoples are to break with old and unproductive patterns of action. But, so far, there is little evidence that it has made the people in many parts of the world ready to create the vital intangibles essential to a productive and expanding capitalism. Voluntarism is suspect. Everything must be worked out according to plan. The directives of the free price mechanism are to be controlled, its incentives damped. The capital and the know-how of the capitalistic West, if sought at all, are sought as a right and on political rather than on economic terms. Moreover, the markets of the countries that have preserved their independence are too small to permit the effective use of the mass production techniques that characterize modern capitalism and make it so extraordinarily productive. Hence their efforts at industrialization, with or without foreign aid, may well prove disappointing. In that event, the great expectations aroused by the performance of capitalism, particularly in the United States, may exhaust themselves in political turmoil rather than in any permanent improvement in levels of living.

Russia's leaders apparently see in industrialization the road to power rather than to human welfare, at least for the foreseeable future. Having renounced foreign borrowing as a source of capital formation, they are forced to squeeze savings out of the people in their vast empire by the lash and the concentration camp. The rate of capital formation is apparently considerable, but the cost in human suffering is more than any free people would voluntarily undergo. Meantime the enormous annual increase in the population in the area under Russian control makes improbable any appreciable improvement in the general level of living.

In one important respect, however, the Russian industrialization program has an advantage over that of the poor countries lying outside the Russian sphere of power. The Russian market is vast. Hence the techniques of mass production can have full play within the limits set by an inadequate transportation system. As this defect is remedied, Russia and her satellites will be able to secure more and more of the technical advantages of the complex and

capitalistic division of labor. Under these circumstances many of the small and independent nations that now look to us may turn to Russia for help. Should that happen we may in time find ourselves alone in a hostile and poverty-stricken world mobilized under fanatical Communist leadership. Our opponents will be poor in this world's goods, but they will greatly outnumber us and they may well possess instruments of destruction as deadly as our own.

In a later chapter we shall consider and appraise the official American program for assisting the countries outside the Russian orbit to develop their resources and raise their levels of living closer to those prevailing here. It is a gigantic venture. The final outcome remains uncertain. But this much can be said with considerable confidence: The venture will not succeed unless those whom we are attempting to help can be induced to lower drastically the barriers they have erected around their national markets. And they cannot be expected to do this unless we, in turn, are prepared to open to them our own vast internal market.

### *Questions:*

1. Explain the difference between "a level of living" and "a standard of living" and indicate why national or regional per capita money incomes cannot measure accurately differences in either levels or standards. Is the inaccuracy likely to be greater with respect to levels or to standards?
2. Which of the following statements appears to you to be more nearly correct? Is there an element of truth in the other?
  - (a) "High real wages are the result of a high standard of living";
  - (b) "High real wages produce a high standard of living."
3. Identify the principal causes of persistent regional and international differences in levels of living.
4. "The increase in regional and national differences in levels of living which accompanied the development and spread of private capitalism proves the correctness of the socialist indictment of the system as one which starts out by exploiting its own workers and ends by exploiting the workers in the backward countries."
  - (a) Is there any truth in the claim that the spread of private capitalism did, in fact, widen national differences in levels of living?
  - (b) Assuming the correctness of the claim, does the socialist conclusion necessarily follow? If not, what alternative explanation can you suggest?
  - (c) Is the word "exploiting" used here in the same sense as you defined **exploitation** in Question 10 of Chapter 16?

5. Identify the "Malthusian law of population growth." Has it been disproved by developments subsequent to its formulation?
6. Argue for or against the validity of the following argument: "Wealthy families in general have fewer children than poor families. This relationship shows that, if a country is faced with the problem of overpopulation, the government can solve the problem by taxing the wealthy families and distributing the proceeds to the poor families."
7. Indicate your understanding of the word "overpopulation" which appears in the preceding question. How would you define "underpopulation" and "a population of optimum size"?

## *The State in a Market Economy*

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SO FAR the role of the State has been neglected in our analysis. In the stationary model it was implicitly assumed (a) that domestic law and order prevailed, (b) that contracts and private property rights were scrupulously respected, and finally (c) that all transactions were carried out with the use of a stable and universally accepted medium of exchange, i.e., money. The general level of prices was supposed to remain constant, while the rise and fall of individual prices, in response to changes in consumer desires, directed resources to the firms most fitted to execute the orders of the consumer.

Only a philosophical anarchist could possibly imagine a society in which all of these conditions could be satisfied without compulsion. Robinson Crusoe got along without the State because he was the State. Once a group of individuals begins to specialize and to interchange their surpluses and to allow some scope for individual initiatives, rules have to be agreed upon, and an organization must be formed to administer them. The State is a social and economic necessity.<sup>1</sup>

### THE STATE AND THE PRIVATE FIRM

In Chapter 5 it was stated that the firm is the basic production unit in a private enterprise economy but not the only one. In addition, a variety of nonprofit-making associations were recognized—churches, lodges, philanthropic foundations, trade unions, etc., and, last but not least, the State.

**Similarities.** In one sense the State is simply one of these asso-

<sup>1</sup> This chapter is a condensation of John V. Van Sickle, *Planning for the South: An Inquiry into the Economics of Regionalism*, Vanderbilt University Press, Nashville: 1943, Chap. I.

ciations. It resembles the business firm in a number of respects. Its executive committee (the elective representatives of the voters in a democracy, the privileged few in an oligarchy, the leader in a totalitarian regime) appoints the principal administrative officers, defines the production program for a period ahead, authorizes and defines the terms on which the labor and resources necessary to the execution of the plan shall be acquired, and fixes the terms on which the resulting public goods and services shall be offered to the citizen-consumers.

The State resembles nonprofit associations in these respects and, in addition, in that the program and its execution are neither determined nor limited by purely profit considerations. The State's objectives are more intangible. In a democracy these objectives may be summed up in the phrase, the general welfare. Since the general welfare is difficult to define and means different things to different people, it is virtually impossible to get complete agreement among the citizens as to whether the State is, in fact, realizing this objective. In a democratic society the assumption is that the political votes of the citizens determine the composition of the executive committee and inform the committee of what they want accomplished through State action. By counting the votes for and against various proposals the executive committee is able to determine what, for the time being, constitutes the general welfare. Thus the citizen issues his instructions in two fashions. His dollar ballots go to the managers of the firms; his political ballots go to his political representatives.

**Differences.** The differences between the State and the private firm are more striking than the resemblances. (a) The State is a compulsory association, not a voluntary one. Membership in the State is not optional as in the case of the firm. The individual is either a voting stockholder or he is not, depending on the general rule governing citizenship. (b) The individual may be required to help defray the costs of production of publicly produced goods and services even though he opposed their production and cannot use them. He must pay taxes, and in addition he can be compelled to make available property or to render certain services at rates of remuneration lower than those at which a private firm could secure them. The condemnation, i.e., the forced sale at a price set by public officials, of land to be used for a public purpose,<sup>2</sup> jury service,

<sup>2</sup> The democratic state frequently pays more than the market price in condemnation proceedings. This may be due to a desire to reduce popular resistance to a public building program or it may represent simple corruption.

and compulsory military service provide examples of the use of resources at less than market prices. (c) The State can actually compel the individual to consume certain of its services (for example, education).<sup>3</sup> (d) Since the State can compel the citizen to transfer to it any portion of his income that is required by "the general welfare," it follows that it can also pay more for personal services or for economic goods than private firms or associations would pay for comparable services or comparable goods. (e) The State similarly is able to make available to citizens goods and services gratuitously or at prices that would bankrupt private firms.

Government purchases at above market rates necessarily affect the prices that private firms will have to pay for the remainder of the supply. If the State's purchases are on a large enough scale it can, in effect, substitute a politically determined or "fiat" price for a market determined price. The Walsh-Healey Act and the Federal Farm Support Program provide examples of such a practice.

The *quid pro quo* or benefit principle of the market place does not apply. If a citizen-consumer wants a product produced in the private sector of the economy, he must offer enough dollars to induce a firm to produce it, and this sum must also be enough to prevent other citizen-consumers from outbidding him. In general, and within the limits of his income, he pays according to the benefits or satisfactions he expects to derive from the commodity in question and to the sacrifices (of alternatives) that he must make. Quite another principle applies with respect to the goods and services produced in the public sector of the economy. In this sector the production decisions are reached by the casting of political ballots, not dollar ballots, and each eligible citizen-consumer casts but a single ballot. The rich man and the poor man exert the same influence in the shaping of the final decision. Since the poor greatly outnumber the rich, they can, if they wish, instruct the State to provide gratuitously or at less than cost a wide array of goods and services that private firms might otherwise be able to provide and, in addition, instruct the State to assess the costs upon the wealthy minority. The more the State approaches the form of a pure democracy, and the more the taxing system departs from the benefit principle of assessing the costs of public services, the more tempting it becomes for the masses to look to the State as the great provider.

<sup>3</sup> It is more accurate to say that the State can compel the individual to spend a certain number of days each year for a certain number of years in an approved school. The state cannot educate a man. It can merely force him to expose himself to the educational process.

In brief, the State, because of these powers of compulsion is under no necessity of observing the production rules mandatory to a private firm. If private enterprise survives, it will be because the majority of the people, as voters, decide that they prefer to look to themselves and to voluntary associations rather than to the State for most of the things they want. If the State arrogates to itself the exclusive right to decide what shall be produced, if it undertakes to assign men to jobs, and to distribute rewards on the basis of political decisions, private enterprise necessarily disappears. Would this be followed by the disappearance of the individual liberties (freedom of the press, of assembly, of belief, etc.) so painfully won in the age-long struggle against tyranny? There is no unanimity among social scientists regarding the answer to this question. We shall come back to it in our study of alternatives to Capitalism.

### THE FUNCTIONS OF THE STATE

This is not the place to review the many theories of the State developed by philosophers with a view to discovering what are the appropriate functions of the State in a free society. It suffices for our purposes to note that public opinion must somehow be able to reserve for the individual an area of free choice in matters affecting him as a worker, a saver, and a consumer if a private enterprise system is to operate effectively.

The theory of prices and competitive markets developed in the preceding pages provides a means for distinguishing between public measures consistent and inconsistent with the operating requirements of a vigorous and responsible private enterprise system. Contrary to popular opinion, this theory does not call for a do-nothing policy on the part of government. True, the theory tells us what the government *should not do*, but, equally important, it tells us what the government *should do* in order that market prices may direct resources into their highest and best uses and permit consumers to maximize the satisfactions obtainable with the incomes they secure as resource owners.

**The requirements of a market economy.** The conditions that must be reasonably satisfied if private enterprise is to discharge its functions effectively were set forth in our earlier discussion of effective workable competition. They can be summed up in three words: *knowledge*, *mobility*, and *responsibility*. After explaining the meaning attached to these three words, we propose to show that the State, *in a market economy*, is discharging its appropriate

functions when it undertakes to see to it that these conditions, in fact, prevail, or, where they cannot be brought into existence, that substitutes are provided which make men wish to behave as though the conditions were present.

**Knowledge and mobility.** For private initiatives to be trusted to advance the general welfare, the parties concerned must have reasonable *knowledge* of the state of the market. Workers must know about the relative earnings in different jobs and in different places and must have the ability and the willingness to learn new skills and to shift from lower-paid to higher-paid jobs, and from places where the skills they possess or are capable of acquiring are in over-supply to places where they are in under-supply. This is known as *mobility*. It follows that public expenditures for general and technical education designed to make men versatile and for the establishment of employment offices equipped to provide men with knowledge of the labor market can improve the operation of the private enterprise system.

The trade union and collective bargaining belong in the system in so far as they give the individual worker the status and dignity essential to democratic living. But if unionism obstructs the movement of men from lower-paid to higher-paid jobs or from declining to expanding occupations, it weakens the system.

These two conditions of *knowledge* and *mobility* apply also to savers and investors. They must have a reasonably broad and accurate view of alternatives. They must be prepared to withdraw their investments from fields of declining profitability and direct them, together with new savings, toward fields in which profits are high. When they call on government to protect their positions in the face of changes in consumer demand or of technological developments, they weaken the private enterprise system. They have a right, however, to expect that those who seek to borrow their resources shall tell the truth. Modern government may very properly take steps to make the capital market an honest market.

Fortunately, the private enterprise system does not require anything like complete knowledge and complete mobility to make it workable. In an orderly society, spending habits are reasonably stable. By far the largest proportion of the consumers' income is spent year after year in much the same way. This stability in spending habits results in a corresponding stability in the demand for labor and capital. It is not necessary that all resource owners should have knowledge and be able and willing to shift their resources into fields where scarcities exist. Small shifts in labor and capital, if they

are not prevented by man-made obstacles, will ordinarily be sufficient to do the job and thus keep rewards in different fields reasonably equal.

The first two assumptions of the private enterprise system are not utopian. The modern State can easily see to it that knowledge and mobility exist to the degree needed to keep labor and capital markets reasonably fluid. This is simply another way of saying that private capitalism requires competition, and that the democratic State can enforce competition if the people really want it.

**Responsibility.** But however effective the State may be in promoting knowledge and mobility, there are situations which cannot be cured by competition. Such situations arise whenever the laws of private property permit a businessman to escape some of the inevitable but indirect costs of his way of doing business. In such situations *the principle of responsibility*, which is the third requirement of the private enterprise system, is violated. Someone is getting something for nothing. Business costs are less than social costs. The injured party must absorb the loss, or he must pass it on to his friends and neighbors (charity) or to the State (relief), while the other party to the transaction secures a gain to which he is not entitled. If the other party, in this case the businessman, is himself subject to competition, he will be forced to pass the gain on in lower prices. But this does not mean that the problem should be ignored. Unless it can be shown that these situations are rare or quantitatively unimportant, the claim that the search for private gain unintentionally but effectively promotes the general welfare is seriously weakened.

*The principle illustrated.* There are many situations in which a public intervention is required to re-establish the equilibrium between private and social costs. A few examples will serve to illustrate *the principle of responsibility* and to indicate the role of government in enforcing it.

*Industrial accidents.* The problem of compensation for industrial accidents immediately comes to mind. The human losses involved are part of the social costs of getting goods and services produced. Under the common law the injured party could sue for damages, but the remedy was slow, expensive, and uncertain. The modern State rightly imposes the costs on business, and the latter converts it into a predictable burden that is added to its operating expenses through insurance.

*Nonconforming uses.* *City zoning* provides another illustration. It channels private initiative and prevents a property owner from

utilizing his property in such a fashion as to reduce the value of near-by properties. If the price mechanism permitted these injured owners to measure the extent of the damage and to collect from the responsible party, there might be no need for this limitation on property rights.

*Erosion* offers still another example. We Americans have been and are still destroying the precious top soil of a continent at a rate that may reduce us to the status of a second-class nation in another generation or two. The farmer whose practices permit his lands to wash away from under him destroys not merely his own property but property values for miles around. The economic life of power dams has been reduced to fifteen years by silting. Rich bottom lands have been ruined, and floods have carried havoc to properties downstream. These are the results of improper farm practices that would bankrupt the practitioners if the costs could be pinned upon them. So far we have discovered no better method of coping with this evil than the expensive educational bribes involved in various federal agricultural programs. The individual states have shirked their duty, which is to redefine the property rights in rural lands in such fashion as to rule out these wasteful practices. In a democracy, education must precede this use of the police power, but, in the end, a democracy must have the courage to use this power if it is to survive. The believer in private enterprise does the institution a disservice when he opposes such measures out of a misguided respect for the "sanctity of private property." Private property will not survive if the many abuses arising out of situations in which individuals escape the indirect costs of their actions are tolerated. A free enterprise society should make liberal use of what the student of constitutional law calls "the police power."

These three examples, from the many which could be cited, will suffice to illustrate the role of the State in the enforcement of the principle of responsibility as applied to *indirect costs*.

*Multiple-purpose enterprises.* Equally important (and even more unpopular with the rank and file of the conservative friends of private enterprise) are the policy implications which arise when an individual enterpriser is unable to collect from all those who gain indirectly from his activities. In that event he has no inducement to push investment as far as would be socially desirable. Such situations involve what may be called the *positive* aspect of the principle of responsibility, in contrast to the *negative* aspect, as illustrated by workmen's compensation laws, city zoning, and rural erosion control.

Wherever an enterprise yields a multiplicity of benefits, the likelihood of underinvestment arises. A system of dams, for example, may improve navigation, regularize stream flow, reduce flood damages, and increase the property values of riparian lands far distant from the dam sites. Under private enterprise the building of dams is limited by the profits to be secured from the sale of power, a service which can be individualized and sold for a price. The substantial indirect benefits cannot be caught by this collection device. Government, on the other hand, has at its disposal not only the price mechanism but the general taxing power as well.

Essentially this is the theoretical justification for multiple-purpose projects such as TVA, Hoover Dam, etc. Road building belongs in this same category. Public education is also a multiple-purpose activity in which there is sure to be relative under-investment if exclusive reliance is placed upon fees. Public expenditures on health can be justified under both the negative and positive aspects of the principle of responsibility. In brief, there is a large field in which the optimum allocation of resources can be reached only through a public intervention involving substantial public expenditures. Over a period of time, these expenditures, particularly those in education and health, can have an enormously equalizing influence on earned incomes.

It is to be noted that this principle does not provide an answer to the administrative issue involved. It indicates that public support is necessary if the optimum is to be reached, and nothing more. The equilibrium position can be reached through government subsidies to private enterprisers in multiple-purpose fields or through public ownership. The correct decision in each case involves the principle of comparative administrative advantages. Under which auspices will the job be better done? The answer will differ from country to country and from time to time.

*Possible abuses of a sound principle.* Unfortunately, these "secondary" benefits defy accurate evaluation. There is always the danger of pushing investment *beyond* the "social optimum." This overinvestment is waste. The recent enthusiasm for public spending as a cure-all for every sort of dislocation greatly increases the risks that a sound principle will be abused. Most of the abuses are taken at the behest of groups adversely affected by dynamic changes. American cotton farmers insist on their right to grow more cotton than American and world consumers are prepared to take at a price that will yield them a decent living. They demand "parity" prices and then, having legislated themselves out of world

markets and finding their domestic markets threatened by synthetic substitutes, they flirt with the idea of asking the Congress to impose a tax on rayon and other substitutes high enough to make consumers aware of their duty to cotton and to its producers. Manufacturers whose low profit margins record the consumers' verdict that the capital and labor tied up in their enterprises should be shifted to other fields of endeavor call on their Congressmen for protection. Laborers whose jobs or rates of pay are threatened by the emergence of competition in areas where prevailing rates of pay are lower than theirs demand the protection of fair wage laws. If the competition comes from abroad, they unite with the manufacturers in demanding tariff protection and, in addition, insist that the low-wage workers be kept out of the country. It is obvious that no economic system can be expected to perform satisfactorily when it is subjected to such demands as these.

The trouble is that producers ask government subsidies so that they may continue doing what no longer needs doing, instead of asking only that the State assist them to find new and needed outlets for their skills and their capitals. There is a place for government aid in our modern and complex society, but this aid should be directed at easing and humanizing the adjustments continuously required in a dynamic and free society. The more resolutely public policy is based on adjustment, the more generously can public spending proceed. Every program, not clearly justified as a means of increasing *knowledge* and *mobility*, and of enforcing the principle of responsibility, should be capable of satisfying this test question: Does it assist individuals to make the adjustments which they would make if they knew all the facts and possessed the ability to act? In other words "adjustment" and not "security" should be the keynote of public policy in a society based on private enterprise. Security, like happiness, is a by-product of human endeavor. In seeking for it directly we appear to have increased enormously the instability and insecurity of life in general. Adjustment, on the other hand, is dynamic and positive; it implies a goal, of course, but as long as we keep the system of private enterprise, we do not have to rely on our elected officials to lay down the goal. The price system does that. The task of our lawmakers and our officials is to provide the legal and social institutions that will enable us to make the necessary adjustments for ourselves.

The next four chapters are devoted to the problem of money. We shall see that the State has a large role to play in this field.

*Questions:*

1. Define “the State” and enumerate the principal differences between it and the private firm.
2. Identify the conditions that must be reasonably satisfied if the search for private gain is really to promote the general welfare. Indicate by examples what the State can properly do to create the necessary conditions.
3. “Traditional or orthodox economic theory provided the basis for the political theory of Liberalism as that term was understood by the drafters of the American Constitution.” State what you understand to have been the political theory of Liberalism of the drafters of the Constitution and argue for or against the validity of the statement.
4. “The much-abused term ‘laissez-faire,’ properly understood, neither implies nor calls for a do-nothing policy on the part of the State. It tells us, it is true, what the State should not do; but no less important, it tells us what the State should do to maintain a responsible private enterprise system.” Explain and illustrate.
5. “The argument for state interventions based on recognition of the existence of indirect benefits may be theoretically correct, but it lends itself so easily to political abuses that economists who believe in the desirability of maintaining the private enterprise system would do well to drop the principle from their kit of analytical tools.”
  - (a) Identify the principle and indicate why it lends itself to political abuses.
  - (b) Suggest a politico-economic formulation of the principle that might meet the objection to it as politically dangerous.

PART FOUR

*Banking and the Monetary  
Circuit*



## *Money and the Price Level*

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THE treatment of production and distribution up to this point has largely disregarded the role of money and credit. The problem was analyzed as though goods and services were bartered directly for other goods and services. The exchange value of any particular good or its power to command other goods in peaceful exchange was said to depend, at any moment of time, upon its marginal utility. The analysis was developed as if goods and services were exchanged directly for one another on the basis of their marginal utilities.

**Say's Law.** The clearest expression of this barter concept goes back to a French economist, Jean Baptiste Say.<sup>1</sup> He argued that supply—what was produced by specialists—was always equal to demand—what was demanded by specialists—since every article produced was at one and the same time a part of total supply and a part of total demand. When the farmer brought his wheat to market, the wheat increased the supply of this cereal, but since it constituted the farmer's means of payment, it also increased the demand for the products of the tailor, the blacksmith, and of other specialists. The specialist could always exchange his surplus for surpluses produced by other specialists, although the terms of the exchange might not be to his liking. Indeed, it was quite possible that what he brought to the market might be so little desired by other specialists that he could not get enough in exchange to keep body and soul together. In that event, it was up to him to make something else that was scarcer and, therefore, more valuable. If he refused to sell his specialty, whether it was a commodity or his own personal services, at this unfavorable rate of exchange, then he became unemployed, but voluntarily unemployed. If the State

<sup>1</sup> *Traite d'Economie Politique* (1803).

would refrain from interfering, there could be no such thing as general overproduction or general involuntary unemployment. The impersonal pressures of the market would force specialists to devote their resources, including their labor, to the production of those goods and services that were in relatively short supply to the benefit both of themselves and of the community at large. The periodic complaints regarding general overproduction and mass unemployment grew out of confused thinking. According to Say, they were impossible for the simple reason that supply and demand are merely two aspects of the same thing. Supply is demand and demand is supply.

**The Mercantilist and money.** Say's analysis, it will be seen, completely disregards money. For this reason it has been much criticized by modern economists. And, indeed, it is an oversimplification. Goods and services are exchanged first for money, and only after a lapse of time is the second half of the transaction completed by the exchange of the money for other goods and services. We shall find that this intermediate money-step introduces complications that must be taken into account. Nonetheless, the doctrine constituted a valuable antidote to the exaggerations of the Mercantilists. The Mercantilists held, it will be recalled, that the primary purpose of foreign trade was to sell to foreigners more than was bought from foreigners so that the nation might obtain gold and silver, which were the money commodities of the period. A nation was thought to be enriched by an influx of the precious metals and impoverished by their loss. A major objective of public policy was to develop a "favorable balance of trade."

There was some foundation of truth in this Mercantilist doctrine, viewed in the light of the conditions prevailing at the time. The nations of Europe were warring with one another continuously. They made large use of hired mercenaries, and allies could be bought for gold and silver. Furthermore, production and commerce were expanding rapidly as strong central governments leveled the innumerable internal barriers to trade characteristic of feudal Europe. Lacking the developed banking systems of a later period, there was an urgent need for increasing supplies of metallic money to handle the growing volume of exchanges. Most of the European countries could obtain these metals only through trade with countries fortunate enough to have mines within their territories or in the colonies under their control. It is not surprising, therefore, that the Mercantilist authors, who were for the most part practical men of affairs, took it more or less for granted that the primary objec-

tive of national commercial policy was to secure a "favorable balance of trade."

In their efforts to demonstrate that international trade benefited both parties to the exchanges, Adam Smith, J. B. Say, and the economists of the emerging Liberalism found it necessary to combat the mercantilistic preoccupation with the "balance of trade." This led them, in turn, to understate the role of money in the development of the complex division of labor, but they were a good deal nearer the truth than were the Mercantilists.

### SPECIALIZATION REQUIRES MONEY

Adam Smith stated that the division of labor is limited by the extent of the market. But it is equally true that the extent of the market is limited by the excellence of the medium of exchange. Even the most simple division of labor, involving more than two households, is tremendously handicapped if the exchanges have to be carried out on the basis of barter.

Consider, for example, the complications that would arise if a farmer brought a pig to market with a view to bringing back a pair of shoes for the baby, a spool of thread for his wife, a new scythe, and a five-pound sack of salt. Even this simple problem cannot be solved without the use of money. Consequently, we find evidences of the use of money in the earliest records of history.

**The functions of money.** A good money performs four important functions. (a) It serves as a *medium of exchange*, thus enabling a society to avoid the impossible complications of direct barter. (b) Equally important, it provides a *standard of value*, a common denominator so that one can compare the exchange values of thousands of different commodities and services, one with another. If commodity A is worth 1 unit of gold, commodity B, 2 units, commodity C, 3 units, etc., then we know that commodity C will command 3 units of commodity A and 1½ units of commodity B, etc. The exchange value of a commodity when expressed in terms of money is known as its price. (c) Another service of money is to provide a *standard for deferred payments*. I own a house from which I wish to derive an income. I can sell it outright for cash or I can accept a 10 percent down payment and agree to accept the balance in installments spread over 5, 10, or any number of years that is mutually agreeable to myself and the purchaser (with interest on the unpaid balance). Or again I may elect to lease it for 49 years after which the property will revert to me. An enormous number of business transactions involve the rendering of a present

service or the delivery of a present good against payment in the future. A money is good for such transactions if its value (a term which will be explained presently) is expected to remain approximately the same over the period of time involved in the transaction. (d) Finally a good money serves as a *store of value*. The seller of a commodity or a service seldom wants to spend the money instantly and entirely for other goods and services, despite the fact that the ultimate purpose of the transaction is to gain not money but goods and services. Most of us want to plan ahead; we may want to buy something expensive which may involve saving for a considerable period of time. Money is a convenient form in which to accumulate savings.<sup>2</sup>

**Money defined.** Money is any commodity that is generally accepted in exchange for goods and services. The list of commodities that at one time or another served as money is long. Wampum was a favored money of exchange of the American Indians. The Haitians used hollow gourds, and their national money today is known as the gourd. In the course of time, two metals survived in the competition of commodities for the role of money—gold and silver.

They survived because of certain characteristics that peculiarly fitted them for this role. They were durable, noncorrosive, relatively scarce, but not too scarce, and capable of being shaped into articles of practical use. They could take a high polish and thus catered to man's love of beauty and to his vanity. Experience showed that anyone who possessed gold or silver never needed to starve or go naked or cold. The difficulty of increasing the total supply made them reliable commodities for a seller to accept and hold, pending a decision as to what he wanted to buy in exchange. Moreover, the metals could be cut and shaped (coined) into units of convenient size and weight, and, by appropriate markings, the weight and purity of the metal in a unit could be guaranteed to anyone to whom they were offered in exchange. In due time the sovereign authority in each politically independent state undertook to provide coins of standard weight and purity and to reserve to itself the exclusive right of coinage. The use of the metals as money increased and stabilized the demand for them and hence increased their usefulness in their new role.

**Bimetallism.** At the beginning of the 19th century both gold and

<sup>2</sup> Many economists regard with some misgivings this characteristic of money because it permits what they call hoarding and hoarding is supposed to cause unemployment. We shall come back to this point later.

silver served as standard moneys in most of the countries of Western civilization. There were inconveniences, however, in this arrangement. A government might declare that its money of account would consist of so many grains of fine gold or so many grains of fine silver, but it was not always able to enforce its edict. In the bullion or metal market the ratios at which the two exchanged might depart slightly from the ratio fixed by the coinage law. In that event, the metal that was undervalued as money would disappear from circulation. An example will illustrate how the process works and how rapidly it works.

For many years the American dollar was declared by law to consist of 23.22 grains of fine gold or 371.25 grains of fine silver. There were thus 16 times as many grains of fine silver in a United States silver dollar as there were grains of fine gold in the gold dollar. Any one with silver bullion could take it to the United States mint, have it coined into silver dollars for a very small charge (seniorage), and exchange the silver dollars for gold dollars at the ratio of one to one. The converse was also true. All commercial transactions and all taxes could be paid in either gold or silver dollars. The coinage law thus declared that one grain of fine gold was worth 16 grains of fine silver. After the discovery of gold in California in 1849, the rate at which the two metals exchanged in the "bullion" market, i.e., in the market in which they were bought and sold for nonmonetary purposes, slowly turned against gold. Consider now the situation when the rate of exchange in the "bullion market" had fallen to 15 to 1. Under these circumstances no new silver coming from the mines would be sold to the United States mint, where it was undervalued, and no gold would be sold in the bullion market. On the contrary, any one with, say, \$10,000 in gold coin could (as any student with paper and pencil can figure out for himself) make a quick profit of roughly \$660 by engaging in the following transactions:

- (1) exchanging his \$1,000 gold at the United States mint for \$1,000 silver;
- (2) trading his silver dollars (as metal) in the bullion market for gold bars;
- (3) taking the gold bars to the mint and exchanging them for gold dollars.

Transaction number 3 would yield the dealer \$1,660 gold. Assuming that it required two weeks to complete these transactions, a speculator could turn his money over 26 times in a year and make a

gross profit of \$17,160—quite a nice return on a completely riskless \$10,000 investment. It is not surprising that silver was rapidly drained out of the monetary circulation, leaving the country, in effect, on an exclusively gold standard.

This tendency for the legally overvalued, or cheaper money, to drive the dearer, or undervalued money out of circulation is known as *Gresham's Law*. Sir Thomas Gresham was the British Chancellor of the Exchequer under the Queen Elizabeth of Shakespeare's time. He is credited with the authorship of the phrase, "cheap money drives out good money" in connection with a report he made to the puzzled Queen on the reason why good, full-weight coins were always disappearing from circulation, being replaced by debased or underweight coins.

So powerful was this tendency that one country after another gave up the hopeless attempt to keep the two metals in circulation. By the last quarter of the 19th century all of the great industrial countries of the world had abandoned bimetallism in favor of monometallism, and the metal was gold. The United States abandoned silver in 1873 as the result of a routine Act of the Congress which was later dubbed "the Crime of 1873" by those who explained the depression and the declining prices of the 1890's as due to an inadequate money supply.

**Legal tender.** Gold became *the* money of the West because the public accepted and trusted it and not because the governments decreed that it should serve as money.

Legal money is anything that a government declares to be money. But for it to serve as money, people must have confidence that the supply of the commodity will not be greatly increased or decreased over short periods of time. Given this belief, the State can increase the acceptability of a commodity by declaring that it will be received for taxes and other public payments. The commodity thereby gains *limited legal tender*. The government may further require that the commodity shall be accepted in payment of all private obligations, in which event it is said to possess *full legal tender*.<sup>3</sup> If the creditor refuses to accept the commodity, the debtor is regarded as discharged of his legal obligation.

A scrap of paper can be made legal tender. There are at present 300 odd million "greenbacks" or United States notes outstanding from the Civil War period.

<sup>3</sup> For the convenience of creditors a government may provide that subsidiary coins such as pennies need not be accepted when offered in excessive amounts, say 100 or 500.

These notes were printed and used by the federal government to pay the soldiers and contractors. They had to accept the paper, and in turn others had to accept the notes from them. This was "printing press" money. After the war the amount outstanding was reduced as the paper was received for taxes until a law was passed requiring that new notes be printed to replace those received by the government.

**The dollar.** Section 8 of Article I of our Federal Constitution gives the Congress the exclusive power "to coin money" and "regulate the value thereof." The term "dollar" was adopted to describe the official money of the United States, and it was provided by law as has already been noted that the dollar should consist of 23.22 grains of fine gold or 371.25 grains of fine silver.<sup>4</sup> This meant that the mint price of gold was \$20.67 per ounce.<sup>5</sup> The law required that the government buy at this price all the gold presented to the mint by giving the seller gold coin or gold certificates. The gold certificate looked very much like the bank notes that circulated at the time. It was a promise of the United States Government to pay on demand to the bearer \$5 in gold, or \$10, or whatever the denomination of the certificate called for. The gold to back up the promise could not be used for any other purpose. Anyone who needed gold for any purpose could present gold certificates to the Treasury and obtain the gold either in the form of coins or bars. The same rule applied to silver until it was demonetized in 1873.

### THE INTERNATIONAL GOLD STANDARD

A country is said to be on the complete gold standard when it undertakes to buy and sell gold freely at a fixed price and to allow its citizens to hold gold coin or gold bars if they so desire. No government is on such a standard today. We are still on the gold standard, however, with respect to foreign countries, in that foreign persons or foreign governments that have dollar claims can insist upon being paid in gold.

During the half century preceding World War I, most of the

<sup>4</sup> This is the famous 16 to 1 ratio. The country was on a bimetallic standard. Actually, because of the softness of the pure metals, the standard coins contained a small amount of a cheaper and harder alloy metal which gave the gold dollar a weight of 25.5 grains of gold nine-tenths fine, and the silver dollar a weight of 412.5 grains of silver nine-tenths fine.

<sup>5</sup> An ounce of gold contains 480 grains of pure gold. Therefore 480 grains were enough to make 20.67 gold dollars (480 divided by 23.22 equals 20.67). Anyone who brought \$20.67 in gold dollars to the mint could obtain 100 troy ounces of pure gold in exchange, and vice versa. Actually gold dollars were never coined because they would have been inconveniently small. Five-, ten-, and twenty-dollar gold pieces, however, were in circulation until the beginning of 1934.

important industrial countries were on the complete gold standard. This fact automatically created an international monetary standard. Thus for many years the British Government undertook to buy or sell standard gold, which in this case meant gold eleven-twelfths fine at the rate of £3, 17s, 10 1/2d, per ounce. This meant that there was 4.87 times as much fine gold in the pound sterling as in the gold dollar and \$4.87 represented the par of exchange.

The French mint price was 3447.74 francs per kilogram of gold; the German price was 2790 marks per kilogram. And so it went for all the other countries that based their money on gold. The French definition of the franc made it worth just over 18 cents, whereas the German mark was worth about 24 cents. Every money in the system had a par of exchange with every other money in the system. The day-to-day divergencies from "parity" could never exceed the actual cost of shipping gold from one country to another.

The international gold standard of the 19th century was destroyed by World War I. An attempt was made to re-establish it during the 1920s, but it again collapsed in The Great Depression of the 1930s, and opinion in expert circles is now divided regarding the desirability of even attempting to restore it. We shall consider the case for and against its restoration after we have examined the economics of international trade.

### THE VALUE OF MONEY

The Constitution, as we have seen, states that the Congress of the United States shall have the exclusive power to coin money and regulate its value. The fixing of the price of the dollar at \$35 an ounce in 1934 was done under this authority, but this is not the same thing as fixing the value of money.

The value of money is what a unit of money will buy in goods and services. It is its purchasing power. The purchasing power of money, therefore, depends on the prices of goods and services. The higher the general level of prices, the lower is the value of money; the lower the price level, the higher the value of money. The value of money varies inversely with the price level.

**The equation of exchange.** Changes in the value of money or in the general level of prices  $P$  are related to changes in three other variables: transactions  $T$ , the volume of money  $M$ , and the frequency with which the monetary units are exchanged for goods and services in a given period of time.

The following formula, which is known as the *equation of ex-*

*change*, is widely used to indicate these relationships:  $MV = PT$ .

The monetary theory of prices expressed by this formula is known as the *quantity theory of money*. (It is presented here in its crudest form; refinements will be introduced later.) The formula states that (a) if the volume of transactions involving money  $T$  increases (or decreases),<sup>6</sup> while the supply of money  $M$  and its velocity of circulation  $V$  remain unchanged, the general level of prices  $P$  will fall (or rise); (b) that, if the quantity of money  $M$  increases (or decreases) while its velocity of circulation  $V$  and the volume of transactions  $T$  remain unchanged, the general level of prices  $P$  will rise (or fall); (c) that, if velocity of circulation changes while the money supply and the volume of transactions remain unchanged, the price level will change and in the same direction.

A rise in the price level is tantamount to a fall in the value of money; a fall in the price level is equivalent to a rise in the value of money.

The preceding formula is a truism; i.e., it must be correct if the assumptions behind it are correct. The assumptions are that a change in any one of the variables  $M$ ,  $V$ , and  $T$  will not cause a change in the other two. In that event the change must work itself out in an appropriate change in  $P$ . But, in fact, the three variables are not completely independent one of another, as will appear in our discussion of the business cycle. Nonetheless, the equation is useful in that it helps to make clear the meaning of the term "the value of money" and the factors that must be controlled by any government that undertakes to determine the future course of prices.

**Measuring the value of money: The price index.** In the United States the price of the dollar can be changed only by law. But in a private enterprise economy the prices of most commodities and services can and do change at frequent intervals. If some commodities rise in price while others fall in price, we know that their relative exchange values have been altered. Some are worth more, some less. But how are we to say whether these changes have altered the value of money?

The usual method is through the use of a comprehensive price index. A price index is a statistical device for indicating the overall

<sup>6</sup> In general  $T$  tends to vary directly with changes in the quantity of currently produced goods and services, but not proportionately, since many transactions involve land and durable goods produced earlier.

result of changes of varying amounts in the prices of an array of goods.<sup>7</sup> The prices of a certain year are gathered and the average of all the prices in the array is given the value 100. Then, from time to time, the items in the array are repriced and the average calculated and expressed as a percentage of the average for the base year. Thus suppose that the average of the prices of 20 items in the base year amounted to \$20, and that one year later the average was \$18, and two years later \$22. The magnitude of the overall change would be expressed as follows:

<u>Year</u>	<u>Average of 20 Items</u>	<u>Index Number</u>
Base year	\$20	100
Year 1	18	90
Year 2	22	110

Out of a confusing variety of price changes, some upward, some downward, some large and some small, some involving expensive items, some involving items worth only a few pennies, is distilled a single value that is supposed to indicate the magnitude of the overall change.<sup>8</sup>

*Consumers' price index.* For purposes of determining whether the value of money has changed a broad price index is generally used. The Bureau of Labor Statistics of the United States Department of Labor, for example, publishes a *consumers' price index* which shows average changes in retail prices of selected goods, rents, and services, weighted by quantities bought in the period 1934-36 by families of wage earners and moderate-income workers in large cities. The items priced represent about 70 per cent of the expenditures of families whose incomes at that time averaged \$1524. The index numbers for selected years were as follows:<sup>9</sup>

<sup>7</sup> The problems of selecting and weighting the items and the type of average to be used are discussed in all standard textbooks on statistical methods.

<sup>8</sup> Changes of all sorts are indicated by the use of index numbers. There are farm price index numbers, bond and stock price indexes, metal and textile price indexes, indexes to show changes in the outputs of literally hundreds of commodities at wholesale and at retail, etc. Wage rate changes and changes in average hours worked per day, week and year can be conveniently shown in this fashion.

<sup>9</sup> Recently the base for this price index has been shifted to a more recent post-World War II period and the composition of the index has been changed to take account of consumers' goods that were unknown or unimportant in the budgets of moderate income families in the 1934-36 period. For the time being both indexes are shown in government statistics. The one shown in the text has the advantage of revealing price changes over a 40-year period.

TABLE 21-1  
 CONSUMERS' PRICE INDEX  
 (1935-39 = 100)

1913 .....	70.7	1938 .....	100.8
1918 .....	107.5	1941 .....	105.2
1920 .....	143.3	1945 .....	128.4
1921 .....	127.7	1946 .....	153.3
1929 .....	122.5	1952 .....	191.1
1933 .....	92.4	1953 .....	192.6

*Wholesale price index.* The following chart (Fig. 21-1) shows the over-all fluctuations of wholesale prices during the period 1919-1953 inclusive. It is calculated monthly by The Guaranty Trust Company of New York, and published in *The Guaranty Survey*, the monthly house journal of the bank. The monthly prices are measured against those of 1926.

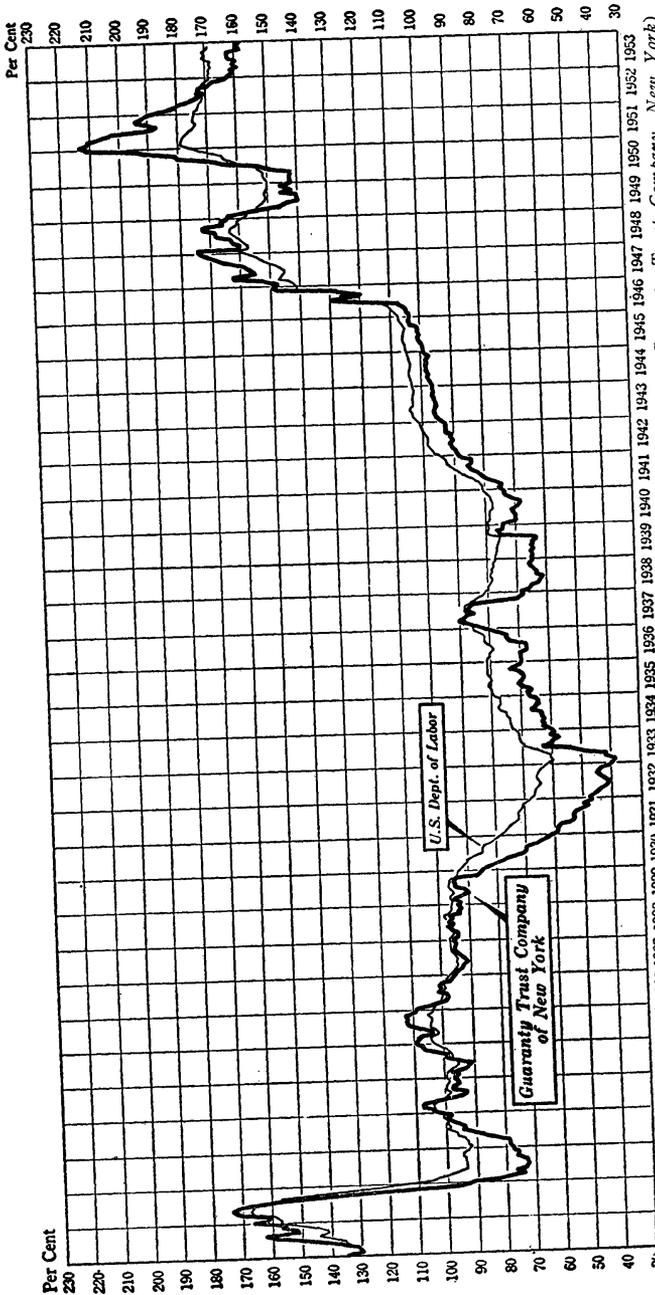
Between 1913 and 1920 retail prices in the United States more than doubled and the value of the dollar was cut in half. By 1933 prices had fallen 45 percentage points from their 1920 high; \$92.40 would buy as much as \$143.30 thirteen years earlier. Then began a slow rise in prices or, what comes to the same thing, a slow fall in the value of the dollar until the outbreak of the war. Between 1938 and 1950 a price revolution took place that was almost as violent as that occurring between 1913 and 1920.

It is apparent from this review of prices that the  $P$  or general level of prices in the formula  $MV = PT$  has fluctuated wildly over the last generation. The constant price level assumed in explaining the behavior of firms is conspicuously absent in the real world. Why has it fluctuated so much? What are the social and economic consequences of these fluctuations? What behavior of prices over a period of time is desirable? If agreement on a desirable behavior of prices can be reached, what can government do to help realize it?

We shall attempt to answer these questions in this and succeeding chapters.

## INFLATION AND DEFLATION

The words "inflation" and "deflation," like so many of the terms used by economists, are ambiguous. They may be used to describe changes in the money supply or changes in the value of money, i.e., changes in the price level. Some economists hold that inflation oc-



(Courtesy the Guaranty Trust Company, New York)

FIG. 21-1. WHOLESALE PRICE INDICES OF GUARANTY TRUST COMPANY AND UNITED STATES DEPARTMENT OF LABOR (CONVERTED) FOR YEARS 1919 TO 1953 (1926 = 100)

The combined index number is an unweighted average of the index numbers for the individual commodities. A price relative is calculated for each commodity by dividing the current quotation by the average price for the base period (the year 1926). The arithmetic average of these relatives is the combined index number. The effect of this method of computation is to give each commodity in the index a weight of one, except steel, which, because of its numerous uses in modern life, is given a double weight by using a separate quotation for steel scrap and another for finished steel.

curs when the money supply is increased, regardless of whether or not there has been any increase in prices. Those who take this position center their attention on the  $M$  in the equation of exchange. Inflation and deflation consist of increases and decreases in  $M$ . If these changes produce no change in  $P$ , it is because of equal and opposite changes in  $V$  and  $T$ , separately or in combination. Those who use the terms to describe price changes center their attention on the  $P$  in the equation of exchange. Inflation and deflation consist of increases and decreases in  $P$ . They would deny that there has been any inflation, if an increase in  $M$  produces no increase in  $P$ , as is perfectly possible if the increase in  $M$  is offset by an equal and opposite change in  $V$  and  $T$ , separately or in combination. We shall use the terms to describe price level changes. Both groups, however, are in agreement that a large and abrupt increase in the volume of money  $M$  will produce a large increase in the price level  $P$  in an economy in which resources are fully employed.

Economists differ regarding the relative merits of a *stable* price level, as against a *slowly rising* or a *slowly falling* price level. All are agreed, however, that in a private enterprise economy most individual prices must be allowed to fluctuate freely within the framework of the overall price behavior they favor, and that the overall change in the general level of prices should not and need not be allowed to assume runaway proportions.

Our interest in this chapter is not with the forces responsible for abrupt and large changes in the general price level, but with the social and economic consequences of such changes.

**The social and economic consequences of large general price changes.** Anyone who has lived through a period of rapid inflation or deflation does not need to be persuaded that large and abrupt price level changes are undesirable.

Rapidly rising prices bring about abrupt and brutal alterations in the personal distribution of incomes. Those living on fixed incomes suffer severely. The old are the particular victims of inflation. Millions in this country live on modest pensions or annuities which were built up by weekly or monthly contributions from their wages or salaries. These contributions represented goods and services that they might have enjoyed at the time or savings that they might have invested in common stocks or in real estate. The real goods and services they gave up when the value of money was high vastly exceed those they can buy in their old age with their low-value pension or annuity payments. Holders of long-term bonds and mortgages suffer in similar fashion. Wage earners, particularly the

salaried workers, may find their real incomes cut because of the lag of wages and salaries behind prices. In general, creditors suffer in periods of rising prices.

Conversely, debtors gain by rising prices. On balance, business firms are among the gainers since they have bonds and mortgages outstanding and they pay wages, salaries, and bills for materials only after a certain delay. One's judgment regarding the relative merits of slowly rising and slowly falling prices is likely to depend on his judgment regarding the relative importance of creditors and debtors in the economy. Business sentiment is optimistic in times of rising prices. To the extent that this favors risk-taking investment, creeping inflation may contribute to full employment, if it can be kept from getting out of hand.

Does government gain or lose by inflation? The burden of a public debt is reduced by rising prices. In extreme cases of inflation, the debt is, to all intent and purposes, wiped out. Extreme inflation is thus a form of capital levy. But since the government is all the people, this merely means that what the taxpayers gain, the bondholders lose. Government, as government, can neither gain nor lose as a result of changes in the price level.

Once inflation gets really out of hand it is extremely hard to check. The government finds it increasingly difficult to raise the revenues to meet its current expenditures because of the inevitable lag between the earning of money by firms and by individuals and the payment of direct taxes on the portion that is taxable. In Austria, after the tempo of inflation had become very rapid, it was discovered that the costs of collecting the income taxes due on incomes earned in the preceding year actually exceeded the amounts due from the taxpayers.

A precipitous fall in prices can be just as disastrous as a precipitous rise. As we shall see later, considerable unemployment is likely to follow a large collapse of prices. The goods and services that the unemployed might have produced represent a serious loss. Creditors gain as long as their debtors remain solvent, but before the deflation has gone very far, creditors are forced to compromise with their debtors or see them go into bankruptcy, after which they too are forced to share in the general misery.

In the next five chapters we continue the study of the problem of inflation and deflation with particular reference to the forces that cause the supply of money to fluctuate, and to the possibility of controlling the price level within the institutional framework of private enterprise.

*Questions:*

1. Identify the following:  
Say's law—barter—monometallism—bimetallism—Gresham's Law—legal tender money—the gold standard—inflation—deflation—index numbers.
2. Compare Adam Smith's views regarding money with those of the Mercantilists and explain the statement, "There was an element of truth in the Mercantilists' views on money."
3. Define money; identify the functions it performs in an economy based on specialization and exchange and the characteristics that long made gold the almost universal monetary metal.
4. "Fixing the price of the dollar is not the same as fixing the value of the dollar." What is the difference? How are we to know whether the value of the dollar has changed between Period 1 and Period 2?
5. What is the equation of exchange and what is meant by saying that it is a truism? If it is a truism, what purposes, if any, does it serve?
6. Identify the social groups that benefit in the short-run from rising prices and explain why they benefit.
7. Argue for or against the validity of the following line of reasoning: "It is generally agreed that individual prices must be allowed to change in response to changes in supply and demand if the private enterprise system is to operate satisfactorily. It follows therefore that any attempt to stabilize the general price level is inconsistent with the requirements of the system."

## *Banking Operations and the Price Level*

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IT is a matter of relatively little importance whether a country has a high or a low general level of prices. The important thing is that wages, interest, rents and profits, in money terms, are in proper functional relationship to one another and to the price level. What is objectionable from the point of view of the general welfare are large and abrupt changes in the price level.

Our concern in the next four chapters is with the problem of controlling the price level. We want to know whether it is technically possible for a modern democratic government to control the behavior of the money supply so that the economy can expand and operate at a high level of efficiency and, at the same time, be protected from abrupt price level changes. The word "technically" was deliberately introduced into this statement of the problem. There may be political considerations which will render impossible a type of control that would realize the long-run price policy which the public may desire and that would be, from a technical point of view, entirely workable.

In the next chapter we shall develop a series of monetary models designed to show how a government could control the volume of money so as to maintain a stable price level or a slowly rising or a slowly falling price level. These models will also indicate the role that gold and private banking would play in the execution of a price level policy. We shall assume throughout this part of the analysis that the economy operates continuously at the full employment level. Then in three later chapters we shall examine the forces that produce fluctuations in the volume of employment and con-

sider whether monetary management may be, in part, responsible for these fluctuations and, if so, what modifications of the findings derived from our monetary models may be necessary if public opinion should decide that full employment is a more important social objective than price level control.

But before we can develop our monetary models it is necessary that the reader should have some understanding of modern banking operations. This is the subject matter of the present chapter.

### INVESTMENT BANKING

There are two main types of banks in the United States today: investment banks<sup>1</sup> and commercial banks. Investment banking can be disposed of very briefly, since the activities of such banks have relatively little effect upon the supply of money or its velocity of circulation. They accept the money of individuals who expect to leave the money on deposit for some time, pay interest on these "deposits," and lend the proceeds to governments, private firms, and individuals for relatively long periods of time. The funds going to business are used primarily for the building of plant and the purchase of durable equipment. Business may secure the funds through borrowing or the sale of equities (common and preferred stock). The funds going to government may be used to build roads, school houses, etc., or simply to finance public deficits resulting from the excess of public expenditures over public taxes. Mortgage loans for home building come largely from this source. In so far as commercial banks supply funds for these purposes, it is through separate departments. We shall treat these operations of commercial banks as belonging within the field of investment banking.

The primary function of investment banking is to mobilize the savings of millions of individuals and make them available for the expansion of the community's real capital. They constitute a vital link in the saving-investment process. They affect primarily the direction of flow of money funds and not the volume of the flow. Through their continuous search for profitable investment opportunities, these institutions speed up the processes by which resources are kept in their highest and best uses.

The profits of these financial institutions depend on their ability to discover investment opportunities that yield a higher rate of return than the rates they are forced to pay to attract "deposits."

<sup>1</sup> Building and loan associations, savings banks, investment trusts, etc., fall in the investment banking category.

The familiar forces of supply and demand are at work here as in every other sector of a free market.

### COMMERCIAL BANKING

Before explaining how commercial banks in a modern economy can influence the volume of money and its velocity of circulation, certain banking terms and banking operations must be understood. The remainder of this chapter is devoted to this subject. We shall then return to the main topic.

**A commercial bank.** A commercial bank is a private firm organized for the purpose of making money for its owners. It belongs in the industry category "finance, insurance, and real estate," to which reference was made in Chapter 5. It produces not goods but services. These services are of three sorts: exchanging credits, keeping records, and creating credit. The significance of these services will become clear as we proceed.

*The bank's balance sheet.* A bank's assets typically consist of its plant and equipment ("other assets"); the legal tender money in its physical possession (currency on hand); its "deposits" with other banks; the notes and promises to pay of customers (loans and discounts); and the stocks and bonds of corporations and governments (investments). Its liabilities are the deposits of customers (demand deposits); <sup>2</sup> notes outstanding (in countries which permit their commercial banks to issue notes); <sup>3</sup> any due but unpaid bills ("other liabilities"); and, finally, the equities of the owners as represented by the common stock outstanding (capital stock) and any past earnings not distributed as dividends (surplus and undivided profits).

These assets and liabilities must always be in balance since the assets represent the marketable values of everything owned by the bank and the liabilities represent the claims of persons against these marketable values. A bank's balance sheet, which always bears a precise date, is nothing but an orderly arrangement of assets (always indicated in bank statements as "resources") and liabilities designed to show that they do, in fact, balance. A simplified balance sheet will look like this:

<sup>2</sup> Most banks will have time as well as demand deposits, but since the uses to which a bank may put these deposits conform with those described in the discussion of investment banking, and are governed by different considerations and different government regulations, there will be no further mention of them in this chapter.

<sup>3</sup> Private commercial banks in the United States have not issued their own notes since the establishment of the Federal Reserve System in 1914. We nonetheless include them here so as to make clear their place in the banking process.

THE PRUDENTIAL BANK OF MIDDLETOWN  
Statement of Conditions, April 30, 1953  
(Balance Sheet No. 1)

Resources	Liabilities
Currency on hand .. \$ 75,000	Demand deposits .. \$ 450,000
Deposits at other banks ..... 325,000	Notes outstanding .. 100,000
Loans and discounts 500,000	Capital stock ..... 250,000
Investments ..... 80,000	Surplus and undivided profits ... 195,000
Other assets ..... 20,000	Other liabilities .... 5,000
Total ..... 1,000,000	Total ..... 1,000,000

**Deposits.** An individual who takes currency or checks to the bank enters the amount on a deposit slip, hands both to a "teller," and receives in return a "deposit" book with an entry showing the amount of the transaction. He may leave, thinking that he has money in the bank. In law this is not so. If the bank should fail one hour after he handed in his money, he could not get it back even if he were able to show that it was still in the teller's drawer. All he has is a claim on the assets of the bank, and the value of his claim will have to wait upon a court determination of the value of the assets in liquidation. If the equities of the stockholders are sufficient to absorb the shrinkage in assets, he may get paid in full; otherwise, he will get back only a fraction of his money or none at all. A demand deposit is thus nothing but a legal claim against bank assets. That is why it appears on the right-hand side of the balance sheet as a liability.

The shareholders, as shareholders, also "put money in the bank." Their claims, however, are of quite a different sort. They are ownership or equity claims, which come after those of depositors and all other outsiders. These claims are thus not a liability of the bank in the same sense as are the others. The item "surplus" on the liability side of the balance sheet represents past earnings which the Directors have voted to add to the permanent capital of the bank. "Undivided profits" are past earnings not yet distributed as dividends or added to surplus. A prudent management always builds up a large surplus for the threefold purpose of protecting the original investment of the stockholders, inspiring public confidence in the soundness of the bank, and permitting the bank to do a larger

volume of business. Surplus and undivided profits increase the equities of the stockholders.

**How deposits come into existence.** There are two ways in which deposits come into existence: (a) through the actual deposit by customers of currency or acceptable checks drawn on other banks; and (b) through loans made by banks to customers. We shall follow the terminology used by the late Professor F. W. Taussig of Harvard<sup>4</sup> and refer to those originating in the first way as *lodged deposits* and to the second as *created deposits*. The law, it should be noted, makes no such distinction, but the two are different in origin and have different effects on the behavior of money. A further justification for making the distinction is that it will simplify the explanation of the role of commercial banks as "manufactures of credit."

*Created deposits.* How lodged deposits come into existence is self-evident. Individuals and firms bring surplus currency to a bank primarily for the convenience of making payments by check rather than in physical money. Created deposits, on the other hand, come into existence as the result of an exchange of credit between a bank and a customer. An example will illustrate the process.

*An example.* The XYZ Company, a valuable customer of the Prudential Bank, wants to buy \$65,000 worth of shoes from the ABC Shoe Manufacturing Corporation of the same city. It expects to sell the shoes within the next three months for \$75,000. It is prepared to apply on the transaction \$15,500 of its lodged deposit with Prudential. It needs an additional \$49,500. Rather than ask ABC Corporation to accept payments on an installment basis or try to raise the money by a sale of common stock or by seeking a long-term mortgage-secured loan from an investment bank, it asks the Prudential Bank for a three-months' loan. The bank agrees to make a 4 percent, 90-day loan. The XYZ Company signs a 90-day note for \$50,000 and delivers it, together with such collateral as the bank requires, to the loan officer of the bank. The bank adds the note to its loans and discounts portfolio and credits the company with \$49,500, i.e., \$50,000 less \$500 in interest paid in advance. (This method of lending is called *discounting* and the charge is referred to as the discount. A simple computation will show that the XYZ Company has to pay more than 4 percent on the loan.) The company immediately mails its check for \$65,000 to the ABC Corporation. The shoes are duly delivered and sold at the antici-

<sup>4</sup> F. W. Taussig, *Principles of Economics*, Macmillan, New York: 1946, Vol. I, Chapter 23.

pated mark-up over the next three months. As the company makes collections, the checks and cash are deposited with the Prudential Bank as *lodged* deposits. When the note matures, the company pays it by drawing a check for \$50,000 against its deposit, turns the check over to the loan officer of the bank, and gets back its note and collateral.

*The significance of the transaction.* It is worth pausing here for a moment to consider the significance of the transaction. The XYZ Company, like most business firms, is confronted with the fact that its revenues flow in fairly steadily throughout the year, whereas its expenses tend to be bunched. If it is to rely exclusively on its own resources to finance its current operations, it must have liquid and nonearning assets against such times as expenses exceed revenues. This procedure would tie up an unnecessarily large amount of capital in a very unremunerative use. It is much more economical for the company to look to a bank to tide it over, to provide it with a part of its "working capital."

But how does the bank do this? In effect, it arranges for a transfer of credits. It says to the XYZ Company, "Give us your note, your promise to pay, your credit, and we will give you in exchange a claim on our assets in the form of a *created deposit*. Within the limits of this deposit, plus your lodged deposit, we will agree to pay any of your bills that you ask us to pay." Thus, when the XYZ Company sends its check for \$65,000 to the ABC Shoe Corporation it is transferring a part of its claim on the Prudential to the Shoe Corporation. The Shoe Corporation accepts the check because it has confidence in the credit of the bank. The bank's credit is superior to that of the XYZ Corporation because it is acceptable to individuals and firms all over the country, indeed all over the world. Hence it is valuable, and the XYZ Company is willing to pay a premium (the discount) for the privilege of exchanging its local and relatively unknown credit for the widely accepted credit of the bank.

We are now in a position to understand the meaning of the statement made previously that one of the functions of a commercial bank is to exchange credits.

**A balance sheet record of the above transactions.** It will be helpful at this point to trace the effects of these transactions on the balance sheet of the Prudential Bank. We shall run through the transactions first on the assumption that the ABC Corporation is also a customer of Prudential and then on the more realistic assumption that it does its business with another bank. To simplify

the exposition we shall combine certain items on the resource and liability sides of the balance sheet as shown on page 269. That balance sheet gives us the original position of the bank.

The situation immediately after the making of the loan and before the XYZ check has been presented for payment is shown immediately below:

BALANCE SHEET NO. 2

Resources		Liabilities	
Cash on hand . . . . .	\$ 400,000	Demand liabilities . .	\$ 599,000
Loans and discounts	550,000	Ownership equity ..	445,000
Investments . . . . .	100,000	Unearned discount .	500
		Other liabilities . . . .	5,000
Total . . . . .	1,050,000	Total . . . . .	1,050,000

Balance Sheet No. 3 shows the situation after Prudential has honored the check (say 7 days later) and before the XYZ Company has made any further deposits. (To isolate the effect of this transaction we assume that intervening transactions happened to leave the bank in the position shown in Balance Sheet No. 2.)

BALANCE SHEET NO. 3

Resources		Liabilities	
Cash on hand . . . . .	\$ 400,000	Demand liabilities . .	\$ 599,500
Loans and discounts	550,000	Ownership equity ..	445,038
Investments . . . . .	100,000	Unearned discount .	462
		Other liabilities . . . .	5,000
Total . . . . .	1,050,000	Total . . . . .	1,050,000

The significant fact revealed by Balance Sheet No. 3 is that this transaction has had no effect on the total resources and liabilities of the bank and none whatever on the composition of its resources. On the liability side there has been an increase in ownership equity since part of the discount has now been earned. Demand liabilities remain unchanged, although there have been changes in the bank's liability to two of its customers. Its liability to the XYZ Company has been reduced by \$65,000, while its liability to the ABC Corporation has been increased by the same amount.

It is obvious that, if the Prudential Bank were the only bank in the country and if all individuals and firms transacted all of their business by checks drawn on Prudential, it could make loans running into the millions of dollars without having to pay out any of its cash on hand. We shall see presently that the amount of loans a single bank can make without losing cash is very limited, if all of the other banks are refusing to make additional loans. But we shall also see that any bank can safely make loans many times larger than its cash on hand and on deposit with other banks, if most of the other banks in the country are also making loans. This will become clear after we have seen how checks circulate.

Balance Sheet No. 4 shows the situation immediately after the XYZ Company has repaid its \$50,000 loan and has had returned to it its cancelled note and collateral. (Again, to isolate and identify the effect of this particular transaction, we make the assumption that any transactions which may have taken place in the intervening 83 days left the bank in the position shown in Balance Sheet No. 3 at the moment this transaction occurs.)

BALANCE SHEET NO. 4

Resources		Liabilities	
Cash on hand . . . . .	\$ 400,000	Demand liabilities .	\$ 549,500
Loans and discounts	500,000	Ownership equity . .	445,500
Investments . . . . .	100,000	Unearned discount .	-----
		Other liabilities . . . .	5,000
Total . . . . .	1,000,000	Total . . . . .	1,000,000

This transaction has affected both sides of the balance sheet. Loans and discounts on the resource side and demand liabilities on the liability side are both reduced by \$50,000. There has been a reduction of one item, unearned discount, and a corresponding increase of another, ownership equity, but both are on the same side of the balance sheet. The total is thus not affected. The point to note about this transaction is that it involves a destruction of the credit created at the time the loan was made. A commercial bank loan ordinarily involves credit creation. This credit circulates as part of the money supply until the loan is repaid. It then disappears from the monetary circuit. Private commercial banking is thus capable of increasing and decreasing the nation's money supply.

This explains why borrowing from the commercial banks is inflationary and repaying commercial bank loans is deflationary.

We shall now trace these same transactions on the assumption that the ABC Corporation keeps its accounts with another bank, that it deposits the XYZ Company check with this bank, and that this bank presents it to the Prudential for payment. In passing it should be noted that, when the ABC Corporation deposits the check, the deposit liability of its bank is increased by \$65,000. This transaction involves an increase in a *lodged* deposit. But our concern here is with the balance sheet of the Prudential.

The situation immediately after the making of the loan and before the check has been presented for payment is exactly the same as before. It is reflected in Balance Sheet No. 2. After the check has been honored, Prudential's position is very different from what it was in Position No. 3. Resources and liabilities are both down by \$65,000 as the result of a loss of cash on hand and an equal decline in the bank's demand liabilities. Resources and liabilities now balance out at \$985,000 instead of at \$1,050,000. When the note is repaid, resources and liabilities again balance out, but at \$935,000 as a result of the \$50,000 reduction in the item "loans and discounts" and a corresponding reduction in the item "demand liabilities."

After this little exercise in double-entry bookkeeping, we are ready to return to the main problem at hand, which is to show how bank credit circulates through the use of checks and bank notes and what forces set limits to the amount of credit commercial banks can create.

**How bank deposits circulate.** Bank deposits circulate by check or by bank note. When the XYZ Company sent its check to the ABC Corporation, it transferred to that company a portion of its deposit with the Prudential. When the ABC Corporation's bank collects the check, there is a movement of cash between the two banks (unless there should happen to be an equal and opposite movement of claims as a result of other transactions) and a change in the demand deposit liabilities of the two banks—a decrease in the case of Prudential and an increase in the case of the other bank. If the two banks were branches of a single bank, the effect on the consolidated balance sheet of the three transactions which we have been studying would be exactly the same as though both companies kept their accounts with Prudential.

**Bank check money.** We have referred to checks a number of

times in the preceding discussion. It is now time to state just what a check is.

A check is a peremptory and very abbreviated letter addressed by a depositor to his bank instructing the bank to pay to a designated party a specified sum of money. The person making out the check is the drawer; the person in whose favor the check is drawn is the drawee. When the drawee presents a check to the bank on which it is drawn, or deposits it with his own bank for collection, he must endorse his name on the back exactly as it appears on the face of the check. When the check is "honored," or paid, the account of the drawer is, as we have seen, reduced by the amount of the check, and the account of the drawee is increased by the same amount.

A customer who wants cash for across-the-counter transactions may make out a check to self or to cash and withdraw currency from the bank. Similarly the drawee may ask for cash. Assuming that the drawer and the drawee are both customers of the same bank, such a transaction would result in the reduction of the drawer's deposit and a corresponding reduction of the bank's asset, currency on hand.

Checks are thus written orders addressed to a debtor, in this case a bank, instructing it to pay a debt due by a customer to a third party. In the United States literally millions of transactions are settled in this fashion, leaving their traces on the books of banks and business firms in the form of credits and debits. This is what one author meant when he characterized a commercial bank "as in reality nothing but a *record-keeping office*, as a sort of an *accounting department* for the economic system as a whole."<sup>5</sup>

**The clearing of checks.** During the course of a business day a bank will receive hundreds of checks drawn in favor of its customers and deposited by them; also, hundreds of checks drawn by its customers in favor of third parties will be presented for payment. If, on a particular day, all of the checks drawn on a bank involved customers of the bank, and if none of the customers wanted currency, it is quite possible that hundreds of thousands of dollars of business will have been transacted without any change in the bank's "currency on hand." Bank clerks will have made hundreds of changes on the ledger sheets set up for its individual customers, but the pluses (credits) and the minuses (debits) will exactly cancel so that the liability side of the bank's balance sheet, like the resource side, will show no change.

<sup>5</sup> F. R. Ormes, *Elementary Construction and Interpretation of Financial Statements*, pp. 82-3 (Crawfordsville, Indiana: 1941. Privately printed).

A day's business is not likely to end up so neatly. On balance, our bank will end the day with net claims against other banks or with a balance due other banks.

**A local clearing house.** If there are a number of banks in a community, they will form a local clearing house. The clearing house may be a physical locale especially set up and supported by the local banks, or it may simply be an agreed meeting place, an office in one of the banks, with each bank in turn providing the place for a week or a month. At the end of each business day, representatives of the banks meet at the clearing house. Each one brings with him the checks drawn on the other banks which it has undertaken to collect for its customers. The total of the checks drawn on other banks and deposited by its customers constitute Prudential's claim against the clearing house, while the total of the checks drawn by Prudential's customers and deposited with the other local banks for collection constitute the clearing house's claim against Prudential. The net balance for or against Prudential is settled by turning over to or receiving from the clearing house the amount of the balance in legal tender money. A very substantial volume of local business can be transacted with little or no movement of currency from one bank to another.

**Regional and national clearing house operations.** But the customers of the Prudential have dealings with customers scattered all over the country. The bank must be prepared to handle these. To this end it opens deposits with large banks in strategic centers and arranges that these *correspondent* banks pay checks drawn against it, and collect and deposit to its credit all the checks received by its customers and drawn on banks that are members of the correspondents' clearing houses. At the end of each day checks on outside banks are sorted according to clearing house districts and sent by registered mail to the appropriate correspondents to be collected. Each day the bank receives from its correspondents packets of cancelled checks which the correspondents had paid. In brief, a correspondent treats the business of the Prudential as part of its own business and collects and settles through its own local clearing house, crediting Prudential's account with collections and debiting it with payments. This is why the balance sheet given on page 269 shows Prudential's "deposits with other banks" as a multiple of its currency on hand.

Depending on the nature of the businesses in Middletown, Prudential may find that on balance its New York correspondent has to pay out more than it collects, while its Chicago and its San

Francisco correspondents collect more than they have to pay out. In that event, Prudential will, from time to time, draw checks on its Chicago and San Francisco correspondents ordering them to pay specified amounts to the New York correspondent.

The details regarding the clearing of checks do not concern us. It suffices to note that in a modern industrial society a system of inter-related clearing houses permit a bank in a small community to make collections and payments for its customers wherever the parties involved may be located. In the United States, most checks are cleared through the Federal Reserve System, which will be described later.

It was pointed out previously that the deposits of customers appear on the balance sheet of the bank as liabilities. This is true whether the customer is a private individual, a business firm, or another bank. But from the point of view of a bank that opens up an account with a correspondent, the deposit appears on its balance sheet as a "resource" under the heading "currency on deposit with other banks."

**Bank notes.** Despite the enormous importance of check book money in the American economy today, the bulk of petty transactions are still settled by physical "legal tender money," subsidiary coins, silver certificates, and bank notes. At the present time only our Federal Reserve Banks can issue bank notes, but this was not always so. Throughout most of our history, our private commercial banks provided us with this form of currency. Here we shall discuss bank notes as though they were still provided by the commercial banks. A brief account of this note system is given later.

Bank notes provide a second method of circulating bank credit. A bank note is nothing more than a claim on a bank's assets. It is a promise of the bank to pay the holder of the note on demand in legal tender money the amount stated on the face of the note. Since paper, or folding money, is much more convenient to carry around than metallic currency, most people will prefer to have most of the money they need for "cash" transactions in the form of bank notes rather than hard money, as long as they have complete confidence that the issuing banks will give them legal tender money, should they want it. Bank notes thus tend to stay in circulation much longer than checks. Checks tend to "come home to roost" after completing the transactions for which they were intended. Bank notes, on the other hand, may stay out for years, traveling from pocket to pocket and visiting every state in the Union, before coming home, shabby and worn out. This behavior of the bank note

makes of it a less pressing but, in a sense, a more solemn obligation than a check. No one has to accept a check if he doubts the solvency of the drawer of the check or of the bank on which it is drawn; and if a check "bounces," if the bank refuses to honor it, the drawee still has recourse against the drawer. No one has to accept a bank note either; it is not legal tender. But, once it is accepted, it is difficult for the acceptor to trace it back to the person who gave it to him and recover in the event that the note proves worthless. Hence governments have usually and very properly surrounded the right of bank note issue with special safeguards.

The point to note here is that bank notes, like checks, provide a means for creating and circulating bank credit.

Assuming as we do here that all bank notes are provided by the commercial banks, what will determine the amount outstanding? It will be the habits of the people and the technical requirements of trade. If the banks put more notes in circulation than are needed for cash transactions, the excess returns to the banks in the form of lodged deposits. Each bank then ships the notes issued by other banks back to those banks and demands legal tender money in exchange.

**The credit limit: The reserve ratio.** At the outset of this description of the operation of commercial banks it was stated that they both exchange credits and create credits. We now want to know what forces determine the limits of credit creation by a single bank and by the commercial banks taken as a whole.

*Credit creation by a single bank.* The power of a single bank to create credit is very limited indeed. If the Prudential Bank should make generous loans to customers at a time when all other banks were contracting loans or merely making new loans as old ones matured, its currency holdings would be very quickly depleted. It would soon find itself unable to meet the demands for cash coming from customers who needed pocket money for their daily transactions.

*Credit creation by commercial banks taken as a whole.* It does not follow from the fact that a single bank cannot create credit that commercial banks, taken as a whole, cannot do so. A well-established and soundly run commercial bank will be continuously receiving checks from customers for collection and deposit to their accounts, checks drawn on other banks, and will continuously be presented through the clearing house mechanism with demands for cash. If all of the commercial banks of a country were members of a single national clearing house, and if the country had no trad-

ing relations with the outside world, then it would be true that the vast number of daily check transactions, involving hundreds of millions of dollars, would have little if any effect on the cash reserves of the banks, taken as a whole. Banks that were extending credit more generously than most of the others would find their reserve ratios falling. Inability to pay in cash any notes that might be presented or any checks drawn on their customers would force them to close their doors. Since the customers of a bank are always in need of a certain amount of "pocketbook money," this threat would force them to curtail credit so as to build up their reserves. The managers of the more conservative banks, on the other hand, would be under pressure from their stockholders to go out and look for likely borrowers, since cash on hand earns no interest and cash on deposit with other banks earns little or none. Thus, as long as bank managements were confident that they had ample legal tender money on hand to meet the demand for "pocketbook money," the banks, taken as a whole, could safely create deposits in favor of customers without risking their solvency; moreover, since the earnings of the banks vary inversely with the size of their reserve ratios, profit considerations would tend to induce all banks to approach as closely as possible some minimum reserve ratio that experience had indicated to be safe. Just how low the reserve ratio could fall without threatening the solvency of the banking system cannot be stated in advance. The more conservative the banks, and the fewer bad loans they made, the lower the ratio could fall. In Great Britain, where there has never been any legal minimum reserve ratio requirement, 10 percent was long regarded as the danger point.

We are now ready to study our monetary models.

### *Questions:*

1. Define "investment banking"; indicate its principal functions in a private enterprise economy. Cite examples. Would you include life insurance companies?
2. What are the essential differences between investment banking and commercial banking?
3. On May 1st the management of the Prudential Bank of Middletown concludes that the bank's resources are overvalued by at least \$50,000. It decides to "write down" the item "loans and discounts" by this amount. (See the balance sheet on page 269 of the text.) The balance sheet of May 1st reflects this change. It is the only one on the resource side.

- (a) What change will have to be made on the liability side of the balance sheet to restore the equality of assets and liabilities?
- (b) Explain the meaning of the terms "the balance sheet" and "ownership equities," and explain why it is the bank's resources (assets) and liabilities must always and of necessity be equal.
4. A has \$1000 "in the Prudential Bank" in the form of an investment in its common stock. B has an equal amount "in the bank" as the result of a deposit of legal tender money.
- (a) Is there any difference in law in the claims of A and B on the bank?
- (b) Show how these two transactions get recorded on the bank's balance sheet.
5. "There is no real difference between 'lodged' and 'created' deposits. The distinction is entirely conceptual in nature. Its purpose is to help make clear the nature and functions of commercial banking."
- (a) Explain the difference in the way in which the two originate.
- (b) Can a created deposit become a lodged deposit? If so how?
- (c) Does the transformation of a created deposit into a lodged deposit involve what is referred to in the text as its "destruction"? If not, how does a "created deposit" ever get "destroyed"?
6. Explain what limits the ability of the banking system to create deposits and why this limit does not apply to any one bank which is pursuing a lending policy which runs counter to that of the majority of the banks.
7. Identify and explain in some detail the three functions which commercial banks render in a private enterprise economy in which fractional reserve banking is legal. Would your answer be the same if each bank were required to keep \$1 of legal tender money as reserve against \$1 in demand deposits?
8. Identify the following:  
bank checks—bank notes—time deposits—demand deposits—the reserves of a bank—the reserve ratio—a clearing house—pocketbook money.

## *Monetary Management in an Isolated State*

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THE purpose of this chapter is to determine whether, in fact, a government can determine the long-run behavior of the price level. With a view to simplifying the problem the following general assumptions will be made:

(a) that public opinion definitely favors one of the three price-level policies mentioned in Chapter 21, viz.: a slowly rising or a slowly falling price level or a price level which keeps the value (purchasing power) of the money constant over time;

(b) that the price level policy favored by the public will not prevent the economy from operating continuously at the full employment level. In other words, we assume here that private firms are able to meet the changing demands of consumers and the changing requirements of growth and technological progress and to provide satisfactory employment for all of the nation's resources owners.

In Chapters 27-29 we shall examine the problem of booms and depressions and, in that connection, re-examine the problem of price level policy on the assumption that public opinion regards the maintenance of full employment as more important than the successful carrying out of any one of the three price level policies here under consideration. The entire problem is so complex that there is an advantage in starting out with the assumption that adjustments will be made by firms and by resource owners with such speed that there will be no involuntary unemployment.

**The method of procedure.** We shall proceed with the use of a series of hypothetical models. Here it suffices to list the models so that the reader will be able to see the nature of the argument. The

first two models will involve an isolated state with a completely independent banking system. The third and fourth will maintain the assumption of isolation, but will introduce a quasi-public Central Bank that will progressively substitute government debt for gold as the basis for the country's money supply. In the fifth and last model the assumption of isolation will be dropped and the workability of the "managed currency" proposal, as developed in the fourth model, will be reviewed in the light of conditions prevailing in the real world of nationalistic governments. The case for and against the desirability of reestablishing an international gold standard will be developed in connection with this last model.

### BANKING UNDER FIRST MODEL

**The assumptions of the model.** In this model we assume an isolated state with a growing population, a progressive technology, and a democratic government dedicated to the maintenance of effective competition. The economy operates continuously at reasonably full employment. The country possesses an elaborate system of private and completely independent commercial banks, which are members of regional clearing associations and a national clearing association. Each bank is required by law to keep a 100 percent reserve of gold dollars or gold certificates to meet its demand liabilities. These will consist entirely of the checking accounts of their customers. The banks are not prohibited from issuing bank notes, but, for reasons to be explained in a moment, they will not do so, because there is no profit in issuing notes. Hence the task of providing the public with "pocketbook money" will devolve entirely on the State. It will issue gold certificates in convenient denominations backed 100 percent by gold. The national money is called the dollar and is defined as consisting of 24 grains of fine gold. There is no "fiat" money, i.e., money whose acceptability depends upon confidence in the State, other than the subsidiary coins (pennies, 5, 10, 25, and 50 cent pieces) necessary for small transactions. All the gold mines in the country are privately owned as is the entire stock of gold used for monetary and industrial uses.

We shall call this model the *100 percent gold reserve model*.

What functions do the commercial banks serve in this model? Their two principal functions are to keep the records for the economy and to exchange their credits for those of their customers. Since all of their deposits are lodged deposits backed dollar for dollar by gold and gold certificates in their vaults, they cannot create credit. What the customers turn over to the banks for the conven-

ience of being able to make payments by check is real wealth—gold and gold certificates.

Under this model the revenues of the banks are derived exclusively from their charges for honoring the checks of their customers and for collecting the checks drawn in favor of their customers. Since these are very convenient services, commercial banking can levy service charges. This would be their principal source of revenue. Undoubtedly, the use of checks would be less widespread than it is in countries with fractional reserve banking, and hence the number of banks would be less, but the resources devoted to this form of banking would be as well rewarded as in alternative activities.

**Prices under First Model.** In an economy operating under the assumptions of this model, the  $T$  in the equation  $MV = PT$  would increase at a steady rate.<sup>1</sup> This increase in  $T$  would cause a steady fall in the general level of prices  $P$ , unless the increase in the money supply  $M$  or in its circulation  $V$  kept pace with the increase in the volume of goods and services currently being exchanged for money. What are the prospects of this happening?

*The behavior of  $M$  and  $V$ .* The  $M$  in the equation would be relatively stable. It would consist of the gold in the Treasury and the gold coins in the banks and in the hands of private persons and nonbanking firms. The gold certificates and the subsidiary coins cannot be counted as part of the supply since a definite amount of gold would be immobilized in the Treasury, earmarked for their redemption. Nor could checks-in-action constitute any addition to the money supply. Backed as they would be 100 percent by gold in bank vaults, they would merely represent a safe and convenient method of transferring legal title to that gold. The checks merely increase the efficiency with which the gold supply performs its function as a medium of exchange.

The value of  $V$  would also tend to be fairly stable over a period of time because it would depend on the habits and customs of the country. In particular the velocity of circulation would not be affected by the waves of doubt regarding the solvency of the banks that sometimes sweep through a country operating with a frac-

<sup>1</sup> In the United States, for example, despite intermittent periods of fairly serious unemployment, output of physical goods and services increased on the average at over 2 percent a year per person over a period of more than 100 years, and Dr. Harold G. Moulton of the Brookings Institution has recently estimated that there are no technical difficulties in the way of our turning out eight times as much per capita in the next hundred years, with a population twice as great as that of 1950. *Controlling Factors in Economic Development*, Brookings Institution, Washington: 1949.

tional reserve banking system. In this model, banks could only fail, in the sense of being unable to pay off depositors 100 cents on the dollar, as a result of downright dishonesty. Any substantial increase in  $MV$ , therefore, would be due primarily to an increase in the flow of new gold to the Treasury. The new gold could come from the melting down of jewelry or from newly mined gold. But since the Treasury would have been accumulating gold for generations past, the new gold added to the supply in any one year could not have any very large effect on  $M$ . And with every passing decade the price-lifting effect of any quantity of new gold would become less and less. Thus, when the total supply of monetary gold in the system was 100,000,000 grains of fine gold, the addition of one million grains would represent a one percent increase in  $M$ . If, at a later time, the total supply had risen to one billion grains, an equal addition of new gold would represent a one-tenth of one percent increase in the money supply.

**The economics of gold mining.** The preceding analysis points to a slowly declining price level. If this trend proved to be a serious obstacle to business expansion, public opinion would strongly favor measures to check the fall in prices.<sup>2</sup>

To some extent, the economics of gold mining tend to check price declines. In periods of falling prices the profit margin in gold mining widens. This is due to the fact that the expenses of production (in terms of wages, cost of machinery, equipment, and supplies) tend to fall with the general fall in prices, whereas the selling price of the product, gold, remains unchanged, being fixed by the coinage law. Thus the fall in the price level would lead to more intensive prospecting for new gold deposits and the more rapid exploitation of the known deposits. If our isolated society is abundantly supplied with gold mines, it may be possible to increase the flow of gold to the Treasury at an accelerating rate and thus counteract to some slight degree the downward effect on prices of the secular increase in  $T$ . Most societies have preferred to avoid this costly diversion of productive resources into the gold mining industry by freeing their banks from the requirement that they back their deposits dollar for dollar with gold.

**The savings-investment relationship.** Before leaving this 100 percent gold reserve model it is important that we note the relationship between saving, investing, and capital formation. The banks are the custodians of the surplus funds of their customers; in a sense, they are financial warehouses undertaking to honor claims on the

<sup>2</sup> See p. 264 for discussion of effects of deflation on business activity.

basis of written orders, i.e., checks. A customer cannot borrow from his bank for the good reason that the bank has nothing to lend. If he wishes to borrow, he has to find someone with surplus funds to lend. Since most people are not well equipped to make direct loans, we can be sure that specialized investment houses will develop that will accept and invest the savings of small savers. In this model no one can borrow unless someone, somewhere in the closed economy, is prepared to lend. This relationship will not be true in the fractional reserve banking models to which we now turn.

### BANKING UNDER SECOND MODEL

**The assumptions of the model.** The assumptions of this model differ from those of the first in one respect only. The banks are authorized to issue notes and create deposits without any limits whatsoever.

**The creation of deposits.** Under this model the banks are in a position to lend even when there is no corresponding desire to save. This can be done because most of the checks drawn on a bank by customers and presented for payment by noncustomers are offset by checks drawn on other banks and presented for collection and deposit by customers.

This model may very properly be called a *fractional gold reserve free banking model*. The way such a model operates was described in the preceding chapter. Only there we referred to the reserves as legal tender. Here it is specified that gold is the only legal tender currency.

**Bank notes in Second Model.** The banks will supply all of the "pocketbook money," except the fractional metallic currency, through the issue of their own bank notes. This now becomes a profitable activity since the notes represent claims on their credit, in the same fashion as do demand deposits, and all they have to keep on hand in gold and gold certificates is whatever sum experience leads them to believe will be enough to meet the demands of customers and note holders for gold. The role of the government in this model is limited to (a) providing the subsidiary coins, (b) buying and selling gold at the fixed prices set by the coinage law, (c) storing gold and issuing gold certificates according as the public prefers certificates to gold, and (d) releasing gold and redeeming certificates whenever the public prefers gold to gold certificates.

**The equation of exchange once more.** With the introduction of bank credit the price level is no longer tied so directly to the supply

of gold. Additional purchasing power can be added in the form of bank credit. The equation of exchange must be modified to take this into account. Under this second model, the equation becomes  $MV + M'V' = PT$  in which  $M'$  stands for the volume of outstanding bank credit and  $V'$  the velocity of its circulation.

Velocity of circulation cannot be measured with complete accuracy. We have no record of the frequency with which pocketbook money changes hands. Bank deposits, however, circulate by means of checks. Every check leaves its trail on the books of the banks in the form of a "debit" against the account of the drawer of the check. Since so much of the business of the United States is done by check we shall not be wide of the mark if we accept the velocity of circulation of deposits as the measure of the velocity of the entire money supply. The velocity of circulation of deposits is obtained by dividing the total debits for a year by the average amount of demand deposits of all the banks for the year. Allowance has to be made for the fact that the deposits of the New York banks turn over more rapidly than those of banks in other centers. In mid-1950 money was turning over about 12.5 times a year. Back in 1929 the turn-over was closer to 30. Between 1929 and 1950 there has been a tremendous increase in the money supply. The upward effect upon the price level would have been much greater had the velocity of circulation of money not declined steadily between the two periods. Loss of confidence in our money would speed up its circulation and lead to an inflationary rise in prices. All proposals for a managed currency system run up against this problem of controlling the rate of turn-over of the money supply. Habits of a people, and the technical characteristics of the methods of producing and selling goods, tend to make for a fairly steady rate of turn-over, but the intangible element of confidence can cause sudden and violent changes which are not easily subject to government control.

**The limits of expansion under Second Model.** Theoretically, output could expand almost indefinitely under this model without the necessity of any fall in the general level of prices. If the banks extended credit exclusively for financing new business,  $M'V'$  would increase in step with the volume of transactions  $T$ , and the price level  $P$  would remain constant.  $M/M'$  would slowly fall, since the supply of new gold would not be increasing as fast as the volume of work to be done.

Actually private banks have always made loans for speculative purposes as well as for financing the production and sale of currently produced goods. Such loans, which enable people to buy economic goods already in existence, real estate, outstanding issues of stocks and bonds, etc., inject new purchasing power into the economic system. If the economy is operating at the full employment

level when this happens, the effect is to raise prices. The rise occurs first in the real estate and stock markets, but some of the purchasing power spills over into the consumer goods markets, causing prices to rise there.

The same results follow when banks finance installment buying. Consumers pledge future incomes to buy now. This tends to drive up prices. Later, when the loans have to be repaid, the excess purchasing power is withdrawn from circulation; this tends to depress prices. The financing of speculation and consumer buying is, in part, responsible for the ups and downs of the general price level, and these in turn complicate the task of keeping a private enterprise economy operating smoothly.

The assumptions of the model do not permit of any exact statement as to the limit of expansion of bank credit. In the preceding chapter it was pointed out that a reserve ratio of 10 percent was long regarded in Great Britain as the level below which a bank's reserves should not be allowed to fall for any length of time. But this rule-of-thumb rule took account of the fact that England was the banking center of the world and that its gold reserves were required to meet foreign as well as domestic demands for gold. It is safe to say, therefore, that the safe minimum reserve in this model would be well below 10 percent. It would depend entirely upon the needs of firms and of individuals for "pocketbook money."

**The safeguard against inflation.** The profits of a commercial bank depend upon the volume of its lending, the rate of discount charged on its loans, and the proportion of the loans that turn bad. The volume of a bank's lending relative to the equity capital supplied by the owners depends on the bank's reserve ratio. The lower the ratio, the larger the volume of loans it is making. Profit-seeking banks thus are under a standing temptation to build higher and higher the superstructure of credit on their gold holdings. What are the forces present in this situation to protect the public from excessive expansion of bank credit?

The answer to this question requires that we define "excessive." The expansion of bank credit would be excessive if it exceeded the expanding needs of trade. In that event it would lead to a general rise of prices, i.e., to inflation .

The next question is this: Would inflation bring into operation an automatic corrective? The answer is, "yes." As prices rose, firms and individuals would find it necessary to hold more "pocketbook money." Hence checks would be presented to the banks for notes, and the banks would now be forced to curtail their loans with a

view to building their reserve ratios up to safe levels. This curtailment of credit would eventually stop the rise in the general price level. The inflation would be brought to a halt.

### BANKING UNDER THIRD MODEL: THE CENTRAL BANK MODEL

**The assumptions of the model.** This model differs from the second in two respects: (a) There is a Central Bank in which all private banks must keep their *legal reserves*. These must not fall below 20 percent of their demand deposits. (b) The Central Bank has the exclusive power to issue bank notes. These notes are legal tender. The private banks are required, as a condition of doing business, to subscribe 6 percent of their capital and surplus to the common stock of the Central Bank. To meet across-the-counter demands for cash from customers, member banks have to keep an additional amount of legal tender money in their vaults ("till money"). This "till money" forms no part of their legal reserves. It is merely the most liquid of their secondary reserves. The Central Bank does business only with the member banks and with the government. Its liabilities consist of its capital and surplus (the ownership equity of the member banks), its outstanding notes, and the deposits of the member banks and of the government. Against these deposits it is required by law to keep a minimum reserve of 25 percent.

The Central Bank's earnings come from the rediscounting of the commercial paper of member banks and from the purchase in the open market of *outstanding* issues of the government's bonds. (For reasons that will be explained later, it may not buy *new* issues.) There is no limit upon the amount of its earnings, but it is prohibited from paying dividends in excess of 6 percent on its paid-in capital stock.

**The operations of the Central Bank.** The Bank is privately owned, but its purposes are public. It does not seek to make money for its owners, but rather "to regulate the supply, availability and cost of money, with a view to maintaining a high level of employment, stable values (meaning a stable price level), and a rising standard of living."<sup>3</sup> To carry out this mandate the Bank is authorized by its Charter (a) to alter at its discretion its rediscount rate; (b) to liberalize or tighten up on the character of the bank paper

<sup>3</sup> Quoted from the statement of purposes in the Federal Reserve Act. Incidentally the term level of living would have been more appropriate here than standard of living. See p. 176 for the distinction between the two terms.

it will accept for rediscount; (c) to engage in "open market operations"; and (d) to impose changes in member bank reserve requirements.

*The rediscount rate.* A bank that has allowed its reserve to get down close to the legal minimum is in a precarious position. Even a small withdrawal of cash can drive its reserve ratio below the legal minimum. To get into a liquid position, it must convert some of its loans and discounts or its investments into cash and deposit the cash with the Central Bank. One method of doing this is to endorse and send to the Central Bank some of the notes of customers, together with the supporting collateral. The Bank lends an amount equal to the face value of the paper, less its interest charge, or rediscount rate. The amount of the loan is credited to the member bank's account with the Central Bank. The transaction produces two changes, both on the left or resource side of the member bank's balance sheet. The "loans and discounts" item goes down, and the "cash on deposit with the Central Bank" item goes up by the same amount. The member bank is now in possession of excess reserves, since each dollar of the new deposit with the Central Bank will support \$5 of additional demand deposits.

The profitability of rediscounting paper obviously depends upon the relationship of member bank discount rates to the rate charged by the Central Bank. A high rediscount rate discourages "going to the Bank"; a low rate encourages it. The decision to go or not to go, however, rests with the individual bank. The Central Bank can merely make resort to Central Bank credit more or less profitable. That is why the rediscount rate is classified as an indirect power.

*Acceptable rediscount paper.* The effect of the power to liberalize or to tighten up on the character of acceptable rediscount paper can be seen quickly. This power limits the proportion of the individual banks' loans to customers that can be passed on to the Central Bank. The Bank's refusal to accept certain types of paper discourages but does not prohibit member banks from making the kind of loans that are declared ineligible for rediscount. The final decision still rests with them.

The ability of member banks to replenish their legal reserves by rediscounting commercial paper permits them to extend credit more freely than would otherwise be the case. In effect, member banks can become, to a certain extent, financial middlemen, screening the innumerable requests for bank loans on the basis of their intimate knowledge of local conditions, and passing them on to the Central Bank. As long as the Central Bank's rediscount rate is less

than the discount rates of member banks, the latter stand to make money by the process. They remain liable to the Central Bank, however, in the event of defaults by the borrowers.

**Open market operations.** The term "open market operations" refers primarily to the purchase and sale of fixed interest-bearing securities in the open market by the Central Bank. We shall assume that the only securities dealt in are the debt obligations of the State. Central Bank sales reduce member bank reserves; Central Bank purchases replenish them. This is true, regardless of whether the Central Bank deals directly with the member banks or with customers of the member banks.

*Sales are deflationary.* If member banks buy the bonds thrown on the market by the Central Bank, they pay by checks on their account with the Central Bank. Their balance sheets then show an increase in the resource item, "investments," and a corresponding reduction of the resource item, cash with Central Bank. The totals on the two sides of their balance sheets are unaffected, but their ability to lend has been reduced.

The result is only slightly different if bank customers buy the securities. They pay by drawing checks on their banks in favor of the Central Bank. The Central Bank delivers the securities and collects by debiting the accounts of the banks against which the checks are drawn. The absolute reserves of the member banks are reduced in exactly the same way and to the same extent as though they had made the purchases for their own accounts. But in this case the offsetting entry on their balance sheets appears on the right or liability side in the form of a reduction of demand deposits. Member bank reserve ratios are not reduced quite as much by customer purchases as by direct purchases. Thus Central Bank sales are deflationary.

*Purchases are inflationary.* Purchases by the Central Bank have exactly the opposite effect. They build up member banks' reserves, regardless of whether the purchases are made from the banks or from their customers. If a bank sells securities from its investment portfolio, the offsetting entries appear on the resource side of its balance sheet in the form of a decrease in investments and an equal increase in legal reserves. If a customer sells, he deposits the Central Bank's check with his bank and the latter sends it back to the Central Bank for collection. The member bank balance sheet shows an increase in its legal reserve, on the resource side, and a corresponding increase in its deposit liability on the liability side.

Member bank reserve ratios are not increased quite as much by customer sales as by direct sales.

*Open market operations and the interest rate.* The buying and selling of government bonds by the Central Bank affects the market rate of interest. Large purchases drive up the price of government bonds. This reduces the effective rate of interest earned by holders of these securities. Conversely large sales drive the price down and increase the effective rate of interest.

Thus open market operations are intended to do two things: increase or decrease the lending power of the banks, and reduce or increase the basic interest rate on the most liquid and riskless type of investment available in the money market. In a competitive and intercommunicating capital market the interest rates for all other types of investment, involving greater degrees of risk, tend to move in response to changes in this basic rate. It follows that open market operations constitute a very powerful device for controlling the supply, availability, and cost of money, and thus for influencing the behavior of the economy as a whole.

**Changes in member bank reserve requirement.** An increase in the minimum reserve requirement reduces the ability of member banks to extend credit; a decrease in the requirement increases it. This power must be used with great discretion as its effects are immediate. A sharp increase imposed at a time when member bank reserves were close to the current legal minimum could render practically every member bank insolvent. An increase can thus stop bank lending; a decrease, however, cannot compel the banks to lend. It merely puts them in a position where they can lend, if profitable opportunities present themselves.

**The limit of expansion.** What is the limit of expansion under this model? By what process is it reached?

(a) *The limit under existing rules.* The limit of expansion is reached when the reserve ratio of the Central Bank has fallen to the 25 percent level and the reserve ratios of the member banks are at the 20 percent level. When this point is reached each dollar of gold in the vaults of the Central Bank will be supporting a superstructure of bank credit, or bank money, of approximately \$20.

The Central Bank can extend \$4 of credit to member banks in the form of created deposits for each dollar in its vault. These created deposits represent the legal reserves of the member banks. They, in turn, can lend \$5 to their customers against each dollar of their reserves with the Central Bank.

Given our assumptions, this is the theoretical limit. The actual limit would be somewhat lower. Member banks would have to have some till money to meet customer demands for cash. Nor can the Central Bank let its reserve fall to the 25 percent level without losing its control of the banking system. It is nonetheless true that the national economy could expand for an extended period of time within the so-called strait-jacket of the gold standard without the necessity of a fall in the general price level.

It may be worthwhile noting how the new gold would enter into the monetary circulation. A gold mining company brings gold to the Treasury. It is assayed and found to contain a definite number of grains of fine gold, 240,000, for example. At the "mint" price it is worth \$10,000. The Treasury pays for the gold with a check drawn on its account with the Central Bank, and it replenishes the account by depositing with the Bank \$10,000 in gold coins or gold certificates. The mining company deposits the Treasury check with its bank which forwards it for collection to the Central Bank. The Central Bank debits the Treasury account and credits the member bank's account. The member bank now has \$10,000 in additional legal reserves and \$10,000 in additional demand deposits. If the legal reserve is 20 percent, \$2,000 of this reserve is needed to cover the mining company deposit; \$8,000 is excess reserves. The bank is in a position to create additional deposits to the extent of \$40,000. Assuming that it does so, the borrowers will draw checks against these deposits and most of the checks will be deposited in other banks. These banks will send them to the Central Bank for collection after which they will appear on the balance sheets as additions to Cash with Central Bank, and they in turn will be in a position to extend additional credits to customers. Thus, over a period of time, the new gold becomes part of the legal reserves of all the banks and permits a general expansion of bank credit of 20 times \$10,000 or \$200,000 less whatever deductions must be made on account of the need for additional till money.

Let us assume, however, that our isolated economy has finally grown to such a size that a further expansion of production and exchange necessitates a fall in the general level of prices. Could this be avoided? The answer is, "yes." A government that is determined to maintain the general level of prices can further relax the relationship between gold and the money supply or, as a last resort, break the tie entirely. Our next model will illustrate the latter possibility. Before taking that last step, however, the government could (a) devalue, i.e., reduce the gold content of a dollar; (b)

reduce the minimum legal gold reserve requirement for the member banks and the Central Bank; and (c) call in all the gold coin in circulation.

*Extending the limit through devaluation.* The government could declare that, as of a certain date, the gold content of the dollar would be reduced from 24 to, say, 16 grains of fine gold. This is known as devaluation. If at the time of devaluation there were 24 billion grains of fine gold in the vault of the Central Bank, the gold base would be one billion dollars. Immediately after devaluation, the gold base rises to 1.5 billion dollars, an increase of \$500 million. The government appropriates this half billion dollars. It appears in the form of a write-up of its deposit with the Central Bank. It may use this new money to reduce the national debt or to meet current expenditures. In either case the checks drawn by the Treasury transfer the deposit to the member banks. It appears on their balance sheets as excess reserves. As a result of devaluation the member banks and the Central Bank now have excess reserves and are in a position to create close to \$10 billions of additional check-book money ( $\$20 \times \$500,000,000$ ).

*Extending the limit through lowering minimum reserve requirements.* A reduction of the legal minimum reserve requirements provides a second avenue of escape from a deflationary pressure on the price level. Thus, if the minimum reserve of the Central Bank were cut from 25 percent to 20 percent and that of the member banks from 20 percent to 10 percent, the leverage power of a dollar of new gold would be raised from 20 to 50 ( $5 \times 10$ ).

These two measures make the link between gold and the money supply very tenuous indeed.

*Extending the limit through calling in gold coins.* The third device for relieving the pressure on prices would be to make it illegal for the banks or private parties to hold gold. This would force the gold into the Central Bank where it would appear in the form of increased member bank reserves. As part of the legal reserves of member banks the gold coin could carry more transactions than it could when in the vaults of the banks or in the possession of individuals and firms. This measure might prove very effective, particularly if there had been considerable gold in circulation. As a matter of fact, this measure generally precedes devaluation. Otherwise, the holders of gold coins would melt them down and sell the bullion to the government at the higher mint price.

It is apparent that the government of an isolated state in cooperation with a Central Bank could define its monetary unit in

gold and remain indefinitely "on the gold standard" without subjecting the national price level to deflationary pressures as the result of a shortage of gold. Indeed the real problem in this situation might be to prevent an inflationary rise in prices. Students of banking in the 19th century were of the opinion that the inflationary threat could best be warded off if the Central Banks were made as independent of government as laws could make them. This is the reason why the Central Bank in this third model is a private bank and is forbidden to buy new issues of government securities. It was thought that the government ought to borrow in the open market on the same terms as any other borrower, risk considered, in the event that it was unable to cover all its expenditures from ordinary revenue sources, such as taxes, fees, the sale of public services of a commercial character, etc. Actually, however, in great emergencies, the Central Bank invariably becomes the agent of government. No laws can protect from the disaster of inflation a people who are not willing to pay the price that must be paid for price level stability.

#### **BANKING UNDER FOURTH MODEL: A MANAGED CURRENCY**

**The assumptions of this model.** In this model the Central Bank is nationalized, the link between the national money and gold is cut entirely, i.e., gold is demonetized, and the legal reserves of the banking system consist exclusively of government legal tender money. The Bank deals in new as well as old issues of government debt. The isolation assumption is retained.

Under a managed currency system the value of the national currency will depend to a very considerable extent upon the people's attitude toward the government. Historically people have had more faith in gold as a metal than in their governments' promises to pay and hence have preferred to have their money linked to gold rather than to the IOUs of their governments.

Nonetheless, in this model we cut the tie with gold and we examine the operation of the banking system on the assumption that the government is able to maintain the confidence of the people in the goldless money. We assume that the nationalized Central Bank is immunized from popular pressures and is able to use its complete power over the money supply to feed into circulation just the amount of additional money required to keep the general level of prices from falling as the volume of exchange increases. Confidence in the government is complete.

**The demonetization of gold.** Under these circumstances the demonetization of gold is entirely logical. Gold now becomes simply one metal among many. The government gradually disposes of its vast holdings in the bullion market. The price of gold falls. The gold mines close down; the stocks and bonds of gold mining companies crash, much as the securities of breweries and distilleries crashed with the passage of national prohibition in 1918. Legal-tender money takes the place of the gold of the previous models. Henceforth the demand for additional purchasing power is met by the printing of additional "fiat" money. This is much cheaper than the old method of digging it out of the ground and storing it in the vaults of the Central Bank or of the Treasury. And the new money serves equally well, given our assumption that the government can and will refrain from using fiat money to defray expenses that should be met by taxation or by borrowing the real savings of the people in the open market at rates determined by the supply of and the demand for savings.

**Member bank reserves.** In this model the reserves of the Central Bank and of the member banks consist exclusively of government legal tender. It would still be possible to erect a fractional-reserve banking system on this fiat money base, but this would not be logical since responsibility for regulating the supply of money now rests unambiguously upon the government. Accordingly the member banks are shorn of the ability to create checkbook money by the requirement that they shall have one dollar of legal-tender money back of every dollar of demand liabilities.

The transition to this 100 percent reserve position is easily effected. The Central Bank simply takes over, i.e., rediscounts, enough of the member bank loans and investments to build up their legal reserves to the level of their demand deposits.

The banks are once again, as in the First Model, warehouses in which individuals and firms keep their surplus legal-tender money for safety and for the convenience of paying by check. They can no longer create deposits. Their revenues come from charges to customers for handling their accounts.

**The savings-investment relationship.** Henceforth individuals and firms wanting to borrow must find other individuals or firms with surplus money to lend. At the time of the changeover, the owners of the private banks, the stockholders, might decide not to redistribute to themselves the accumulated surpluses and undivided profits shown on their balance sheets, but to use them for loans. To the extent that banks did this, they would be investment banks, not

commercial banks. They would be lending the real savings of the stockholders, not the credit of the banks. Private bank credit would no longer be available to provide the additional purchasing power needed to support the general level of prices in the expanding economy. Henceforth the government must provide it.

**Functional finance.**<sup>4</sup> In principle the task is very easily accomplished. The Treasury simply gives the Central Bank, which is now an agency of the Treasury, a noninterest-bearing note, or promise to pay, in the exact amount required to prevent the price level from falling, and receives in return a deposit credit on the books of the Central Bank. On the balance sheet of the Bank the government's promise to pay appears as a resource, while the deposit appears as the offsetting liability. The government then pays part of its current expenses by checks drawn on the Central Bank. The receivers of the checks (government employees or contractors working for the government, for example) deposit them with their banks and the banks forward the checks to the Central Bank for collection. As a result of these transactions the member banks show an increase in deposits with the Central Bank on the resource side of their balance sheets and a corresponding increase on the liability side in the form of deposits due customers. The new money has become part of the medium of exchange.

We have here a managed currency system completely divorced from gold. The government operates it on the basis of a comprehensive and sensitive price index. A fall in the index indicates the need of injecting additional purchasing power into the system; a rise of the index indicates the need for withdrawing purchasing power from the system.

The mechanism for withdrawing money from circulation is as simple as that for injecting it. To withdraw money the Treasury may follow one of two courses: (1) It may take from the people through taxes more than it pays out in current expenditures and use the difference to reduce its noninterest-bearing debt to the Bank; or (2), it may borrow in the open market, paying whatever rate of interest market forces require, and build up its deposit with the Central Bank. In either case individuals draw checks on their banks in favor of the Treasury. When the Treasury deposits the checks with the Central Bank, the legal reserves of the private banks are reduced. This reduces the effective supply of money *and* the inflationary pressure on prices. If the Treasury collects one

<sup>4</sup> This is a term carried by Abba P. Lerner. See his *The Economics of Control*, Macmillan Company, New York: 1944, pp. 307 ff.

billion dollars in taxes in a given period of time and spends only \$750 million, or if it borrows \$250 million in the open market and holds the proceeds in the form of an idle deposit, \$250 million in effective money has been withdrawn from circulation.

Assuming that government officials can measure and correctly diagnose the causes of price level changes, the managed currency model would appear to provide a simple mechanism for keeping business activity on a high and even level and at the same time maintaining general price changes within relatively narrow limits. In brief, through surplus and deficit financing, the government discharges its task of maintaining precisely the volume of effective money required to permit the economy to grow and expand at a stable price level and with a continuously high level of employment. Meantime individual prices would be permitted to rise and fall, thereby providing the incentives and the guides by which private firms undertake to satisfy the wants of consumers.

### A RECAPITULATION

**The reserve ratio and the equation of exchange.** *First Model.* In this 100 percent gold reserve model the equation of exchange is  $MV = PT$ , and the reserve ratio,  $M/M'$  equals unity, or 100 percent. The long-run trend of prices will be downward unless the society is prepared to allocate a steadily increasing proportion of its resources to gold mining. Neither the private banks nor the government can influence the long-run behavior of prices.

*Second Model.* In this model the equation of exchange is  $MV + M'V' = PT$  and the reserve ratio,  $M/M'$ , is less than unity. Since there is no legal limit to the superstructure of credit which the banks may erect on the gold base, the theoretical limit of expansion is infinity. Actually the limit is reached when the public's demand for gold and gold certificates—pocketbook money—finally forces the banks to refuse further credits. Until this limit is reached the private banks are responsible for the long-run behavior of prices.

*Third Model: The Central Bank Model.* In this model the theoretical limit of expansion is reached when the reserve ratios of the Central Bank and the member banks reach their legal limits.  $M/M'$  cannot fall below 1/20 unless the government relaxes the 25 and the 20 percent reserve requirements of the Central Bank and the member banks respectively. Control of the price level is shared between the Central Bank and the member banks. The Central Bank controls short-run fluctuations in the price level through the devices described previously.

*Fourth Model: Managed Currency Model.* In this model gold is completely demonetized. The responsibility for controlling the short- and the long-run behavior of prices rests squarely on the government. Changes in the money supply are the results of deliberate fiscal policy. New money is created when the government borrows from the Central Bank to defray current expenses; the money supply is reduced when the government uses tax revenues to redeem some of its noninterest-bearing notes in the possession of the Central Bank or borrows in the open market and hoards. The equation of exchange is  $M_1V = PT$  in which  $M_1$  is inconvertible legal-tender (fiat) money. The reserve ratio  $M_r/M_1$  is unity, or 100 percent, with the credit of the government rather than gold as the sole backing for the country's money supply.

Is a completely managed currency system workable? From the point of view of pure theory the managed currency model is far and away the most economical and most rational way of supplying our hypothetical closed economy with a medium of exchange. It does away entirely with the waste involved in digging gold out of the ground at great expense and then storing it in the vaults of the Central Bank or of the Treasury and devoting more resources to its protection against theft. The human and material resources devoted to these purposes can be released and put to work producing things the people really want. Under the gold standard no one wants the gold (aside from the relatively small amounts used for adornment or in the industrial arts) either as a store of value or as a medium of exchange, as long as there is complete confidence in the government and in the banks. The Fourth Model thus appears to be the logical outcome of the process of loosening the connection between gold and the superstructure of credit by means of which countries on the gold standard attempted to ward off deflationary pressures.

But is a completely managed currency system in fact workable in the kind of world we live? The evidence of history justifies extreme skepticism. Printing paper money is an easy way of raising public revenues; taxing the people is difficult and unpopular. Governments in the past have invariably succumbed to the temptation and taken the easy way when freed from the disciplines of the gold standard. Private competitive banking has not been able to give us long-run stability even when operating under the disciplines of the gold standard, but its record to date is vastly superior to that of governments operating allegedly in the general interest. The really

disastrous inflations of the past have usually occurred when the responsibility for managing the money supply has been in public hands. Nonetheless anyone who believes that government in the future can do what no government in the past has been able to do can quite logically advocate the adoption of a managed currency system *for an isolated society*. But before advocating it for his own country, he should ask himself whether it would work in the real world.

Further discussion of this question must be postponed until we have reviewed the history of commercial banking in the United States and examined the complications that arise from the fact that national economies are parts of an international and highly competitive world economy. The next two chapters are devoted to these topics. Then in Chapter 26 we shall return to the main issue, the workability of managed currencies in an international world bound together by the need to maintain international trade.

### Questions:

1. State the assumptions governing the analysis of banking under the First Model, and in the light of those assumptions answer the following:
  - (a) Would banks collect checks for customers and pay checks for customers? If so, what would be the inducement?
  - (b) Would it be profitable for private banks to issue bank notes? If not, how would the society be provided with pocket-book money, and what means would be available for determining whether the amount in circulation was inadequate or excessive?
  - (c) What functions would commercial banks play in the First Model? Would there be any distinction between commercial and investment banking?
  - (d) Argue for or against the validity of the following propositions:
    - (i) "The variables in the equation of exchange show that there would still be short-term fluctuations in the general price level."
    - (ii) "The long-term trend of the general price level would be downward."
    - (iii) "The long-term trend of factorial rewards in both money and real terms would be downward."
    - (iv) "The long-term trend in the quoted prices of the common stock of gold mining companies would not conform with the trend for common stocks, taken as a whole."
    - (v) "There could be no such thing as 'forced savings' in this model."
    - (vi) "If there were any net investing in this Model it would

have to be equal to the amount of net savings and the interest rate would serve to equalize saving and investing.”

2. State the assumptions governing the analysis of banking under the Second Model; indicate with supporting reasons whether these assumptions require any changes in your answers to the subordinate questions (a) through (d) in Question 1; and, in addition answer the following question:
  - (a) Could there be run-away inflation under the Second Model if business firms and the government borrowed from the commercial banks funds needed to finance outlays which should have been financed through the investment banks, or through the plowing back of profits in the case of business, or through additional taxes in the case of government?
  
3. State the assumptions governing the analysis of banking under the Third Model and on the basis of these assumptions answer the following questions:
  - (a) Is there any difference in the effect of a legal minimum reserve requirement in this Third Model and in the Second Model?
  - (b) Identify the means at the disposal of the Central Bank for (i) stabilizing the general price level; (ii) influencing the prevailing short-term rate of interest.
  - (c) What condition must be satisfied if the Central Bank is to be in a position to permit the banking system taken as a whole to create more bank credit than was possible before its establishment? (Assume here that the legal minimum reserves of the private banks are the same after as before the establishment of the Central Bank.)
  - (d) Explain how, under the limiting assumptions of this Third Model, the State can indirectly influence the long-term trend of prices. (Note: The answer to this question requires use of the following concepts: (i) open market operations; (ii) legal changes in the character of collateral eligible for rediscount, including the obligations of the government; (iii) the rediscount rate; (iv) devaluation.)
  - (e) “19th century advocates of a Central Bank saw in this institution a protection against both excessively large deflationary and excessively large inflationary changes in the national price level. Actually the Central Banks have proved more effective as a means of checking deflation than as a means of protecting society from excessive inflation. In fact, they have made the road to inflation unduly easy by enabling governments to inflate without direct resort to the printing press.”
    - (i) Identify the safeguards which 19th century advocates regarded as adequate to prevent governments from using the Central Bank as “an engine of inflation.”
    - (ii) Indicate the significant changes in the relations of govern-

ments to their Central Banks which lend plausibility to the statement.

(iii) Argue for or against the proposition that as matters now stand the outright nationalization of the Central Bank would increase rather than decrease the ability of its directors to use the powers of the Bank to stabilize the price level.

4. State the assumptions governing the analysis of banking under the Fourth Model and, on the basis of these assumptions, answer the following questions:
  - (a) Define "demonetization of gold" and explain why it is the logical consequence of a decision to operate the economy on the assumptions of this Model.
  - (b) Assuming a political decision to maintain a constant price level over time, explain in some detail how the government could implement this decision. (Note: In the course of your explanation use and define the term "functional finance".)
  - (c) What are the functions of the Central Bank and the private banks in this Model? Could they create or destroy credit?
  - (d) Identify the political risks that are involved in the adoption of this Model. Can you suggest additional risks that would be involved if we dropped the "isolation" assumption?

# *Currency and Banking History of the United States*

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CURRENCY and banking problems are interdependent. Logically and historically the currency problem comes first. In this chapter we shall review briefly American experience and use it to illustrate the principles developed in the immediately preceding chapters.

## THE CURRENCY SYSTEM

**Currency defined.** The term refers to anything which is generally acceptable in settlement of business transactions. The "thing" may consist of (a) some commodity or commodities; (b) paper notes evidencing 100 percent ownership of given quantities of the commodity or commodities which serve as currency; (c) paper notes based on the credit of government or of private institutions (such as banks) and backed in part or not at all by a physical commodity. The first type of currency is known as a commodity money, the second as a certificate money, the third as a credit money. A certificate money does not increase the money supply. It merely simplifies the transfer of ownership of the commodity money.

**Colonial currencies.** In colonial days all sorts of things served as currency—wampum, tobacco, furs, rice, gold and silver coins of various foreign countries—Spain, Portugal, France and England—and paper notes printed by the various colonial governments. The bulkiness, the perishability, and the lack of standardization made the nonmetallic commodity currencies very poor media of exchange. The foreign coins were also unsuitable since they had frequently been "clipped" or "sweated." Hence they had to be exchanged for one another and for commodities on the basis of weight. Under

these circumstances there was naturally a tremendous popular demand for some form of credit money. Since private banking was virtually nonexistent in the colonies, the colonial governments responded to this demand by issuing their own notes, backed sometimes by coins or specie, sometimes by publicly held lands, and sometimes by nothing but the credit of the government, i.e., its power to raise through taxes the money needed to redeem the notes. The notes provided a welcome and needed addition to the supply of currency. They were in effect noninterest-bearing loans issued to pay salaries, purchase supplies, and finance public improvements. Those who accepted them gave up services or valuable goods in exchange for a public promise. Usually the governments made these notes legal tender, which increased their general acceptability but also made them forced loans.

As long as the issues were limited and did not exceed the needs of trade, they provided an economical and highly useful medium of exchange. Some of the colonial governments were able to resist the temptation to easy spending represented by this kind of interest-free borrowing. Being able to redeem their notes in specie on demand, few were presented for redemption. They circulated freely both within the issuing colonies and in neighboring colonies. Other colonial governments "overissued," their moneys depreciated, prices rose, and trade was thrown into confusion.

**The Continental currency.** During the Revolutionary War both the states and the Continental Congress issued notes in large quantities. The issues of the Continental Congress were so immense that the notes became practically worthless—"not worth a Continental." Creditors ran away from their debtors. At war's end the country had no reliable currency system, and none was achieved during the life of the Confederacy.

**The federal government adopts bimetallism: The United States dollar.** One of the first tasks which the new federal government undertook was the establishment of a reliable money which would circulate at par in all parts of the country. The Coinage Act of 1792 declared that the legal money of the country was the "dollar," and that it should consist of 371.25 grains of pure silver or 24.75 grains of pure gold. The government undertook to buy and sell the metals at these "mint prices." We thus started out with a bimetallic money, with the ratio of exchange of the two metals fixed at 15 to 1—the ratio at which the two metals were actually exchanging at the time in the bullion market.

It was not long, however, before the ratio in the bullion market

moved against silver. An ounce of gold became worth more than 15 ounces of silver. Consequently gold coins in circulation were melted down and used to buy bullion silver which was presented at the mint in exchange for silver dollars. The silver dollars were then exchanged for gold dollars, and the process which we know as Gresham's Law continued to operate until all the gold coins had disappeared from circulation. Up until 1834 the country was, in fact, on a silver standard. In that year the mint ratio was changed to approximately 16 to 1. This new ratio soon resulted in an overvaluation of gold at the mint, and now silver disappeared from circulation, much of it being shipped abroad in payment for imports. For the next 40 years there were no full-bodied silver coins in circulation for the simple reason that the silver in a silver dollar was worth more than a dollar. De facto, therefore, we were on a one-metal standard—gold.

**Greenbacks.** During the Civil War the federal government financed its war expenditures in part by the issue of almost one-half billion dollars of inconvertible United States notes—popularly known as “Greenbacks.” As a consequence, domestic prices rose sharply, gold coins disappeared from circulation, and the notes fell to a discount against gold. Prices quoted in Greenbacks were much higher than prices quoted in gold. The gold premium fluctuated with the fortunes of the Northern armies. The Southern Confederacy also issued notes which depreciated and became worthless after the final defeat.

After the war, federal expenditures were cut back sharply, revenues remained high, and there were a long series of annual treasury surpluses. These surpluses were used to redeem some of the interest-bearing debt and some of the Greenbacks. This created a deflationary pressure on prices and led to loud complaints regarding the lack of money. The situation was particularly acute in the West and the South where sound private banking was least developed and where more of the daily transactions were settled with Greenbacks. These complaints forced the government to discontinue the policy of redeeming them. Some one-third of a billion dollars of Greenbacks are still in circulation. They are known as United States notes. As rapidly as they return to the Treasury, they are destroyed and new ones issued in their stead.

**The resumption of specie payments.** The improved credit of the government and the willingness of people to accept the Greenbacks led to a slow but steady rise in their value relative to gold. In 1873 the government announced its intention of eventually re-

deeming the notes in gold at the prewar mint price. In 1879 this was done, and from that date until we abandoned the gold standard in 1933 any holder of Greenbacks could use them to obtain gold from the Treasury on demand. For all practical purposes they were as good as gold, and much more convenient to handle.

**The adoption of the gold standard.** At the same time that the Congress announced its intention of making the Greenbacks convertible (into gold), it also dropped the provision in the coinage law regarding silver. At the time this was regarded as a simple recognition of the fact there had been no full-bodied silver coins in circulation for over a generation. Most European countries also shifted from the dual gold and silver standard to the single (gold) standard at about the same time. The world-wide depression which set in at just this time carried silver prices down with all other commodity prices. The price of gold, however, did not and could not fall since the governments of most of the important industrial countries of the world were committed to buying all the gold presented to their mints at the fixed prices set by their coinage laws. Our mint price was \$20.67 per fine ounce. Had silver not been demonetized large quantities of silver would have been offered to our Treasury for coinage into silver dollars. But this outlet had just been closed. The silver interests, centering in the mining states of the West, denounced the demonetization of silver, argued that this was responsible for the collapse of prices, the widespread bankruptcies, the rise of unemployment, and the general stagnation of business. They called the demonetization law "the crime of 1873" and demanded the restoration of free and unlimited coinage of silver. In general the debtor interests in the country lined up on the side of free silver while the creditor interests defended the decision of 1873. The Democratic party in particular was split wide open over the issue. William Jennings Bryan became the spokesman for the Western and Southern wings of the party which favored "free silver." His famous speech in which he pictured the country as being crucified on a cross of gold won him the party nomination in 1896, and he was renominated again in 1908.

**The "free silver" issue.** "Free silver" was probably the single most controversial issue of the last two decades of the 19th century. The Congress refused to return to bimetallism but compromised by authorizing limited purchases of silver and the issue of silver certificates or full-bodied silver dollars. With various modifications these purchases have continued up to the present time. The notes were acceptable to the general public because it was the declared

policy of the government to redeem them in gold on demand. The purchases thus constitute an annual subsidy to the silver mining interests for which there was and is no economic justification at all. The Congress tolerates it because of the power of the silver bloc in the Senate—the representatives of a handful of states where silver mining is important—and because the subsidy is not reflected directly in our tax bills. The silver is paid for by the issue of silver certificates. This issue increases the amount of pocketbook-money, which is needed, in any event, in a country growing in population, in wealth, and in the volume of business transactions. The public is simply not aware that it is paying to a small, well-organized and privileged group a ridiculously high price for this annual addition to its currency.

**Devaluation of the dollar.** With the advent of The Great Depression, country after country abandoned the gold standard. We followed suit in 1933. For some 10 months we operated with a completely managed currency. United States dollar exchange was allowed to fluctuate with changes in the supply of and demand for dollars to settle international transactions. Individuals were forbidden to hold gold. Then in 1934 we returned to gold but on a limited basis and with a dollar with a small gold content. The “mint price” of the new dollar was raised from \$20.57 to \$35.00 per ounce. We maintain the prohibition on the private holding of gold (except for specified commercial purposes). At the stated price, the Treasury buys all gold offered to it and releases gold under special licenses when an export of gold is required to meet foreign obligations. Movements of gold into and out of the Treasury are accomplished by the issue and the destruction of gold certificates. These certificates are backed, dollar for dollar, by gold which is largely buried under ground at Fort Knox, but the certificates are not redeemable in gold. The government’s holding of gold now amounts to some \$22 billion. The nonredeemable gold certificates constitute the reserves of the banking system.

In this section we have traced the evolution of the commodity currency, the certificate currency, and the government note currency in the United States. We have seen that this part of the currency supply consists of gold (and gold certificates), silver (and silver certificates), and approximately one-third of a billion dollars of United States notes left over from the Civil War. We now turn to two other and much more important media of exchange, bank notes and demand deposits.

## COMMERCIAL BANKING

The history of commercial banking in the United States falls logically into four periods: (1) the period of the First and Second Banks of the United States; (2) the period of "wildcat" banking; (3) the period of the National Bank Act; and (4) the contemporary Federal Reserve Banking period.

### THE FIRST AND SECOND BANKS OF THE UNITED STATES

Shortly before the passage of the Coinage Act of 1792 which established the dollar as the monetary unit of the country and provided for the free and unlimited coinage of gold and silver dollars at the ratio of 15 to 1, the Congress passed an act chartering the First Bank of the United States. The charter, which ran for 20 years, provided for a capital of \$10,000,000, one-fifth to be in specie and the balance in the form of a demand liability against the purchasers of the common stock of the new institution. \$2,000,000 of the capital was to be owned by the government. Foreign investors purchased most of the remaining stock. (Here is an early example of how an industrially underdeveloped country can secure foreign capital to provide itself with a reliable monetary system.) The Bank was authorized to issue notes up to the amount of its capital less any debts outstanding. Demand deposits did not figure in the "debts outstanding." It was not yet realized that demand deposits are a bank liability in exactly the same sense as notes outstanding. This treatment of demand deposits shows two things: how little developed this form of settlement was at the time; how largely deposits were what we have called "lodged" rather than "created." Bank credit at this time circulated almost entirely in the form of bank notes. To increase the popular acceptability of the notes, they were made acceptable in payment of obligations to the United States Government as long as they were redeemable in specie.

For the 20 years of its existence the Bank was an almost unqualified success. Its practice of demanding specie payment on all state bank notes coming into its possession forced private banks all over the country to maintain adequate specie reserves against their own note issues. The result was that the country was now in the possession of a reliable medium of exchange. The lending power of the state banks was reduced. This tightened the interest rate. But the very success of the Bank made it unpopular, particularly in the South and the West where money and credit were scarce and the need for both was urgent. This unpopularity reached such propor-

tions that the Congress refused to renew the charter in 1811. This ended the existence of the First Bank of the United States.

Thereupon the states began chartering private banks very freely. Between 1811 and 1815 the Secretary of the Treasury estimated that the number of state banks increased from 88 to 208 and the volume of state bank notes increased by leaps and bounds. In general specie reserves were so inadequate that the notes were accepted only at considerable discounts against specie. This situation greatly complicated the financing of the War of 1812. The "over-issues" had reached such proportions by 1814 that most of the banks in the country outside of New England suspended specie payments entirely. Thereafter the discounts on their notes fell still further. As a consequence the federal government found it difficult to market its own bonds. Issues totaling about \$80,000,000 realized only about \$34,000,000 of hard (specie) money. Since these bonds were eventually paid off in sound money, the taxpayers were forced to pay back twice as much as the Government received. This experience convinced even the most bitter opponents of the First Bank that the country could not get along without a reliable banking system.

In 1816 the Congress granted a charter (again running for 20 years) to the Second Bank of the United States. Its authorized capital was increased to \$35,000,000. After a brief period of poor management, the Bank returned to the practices of its predecessor and with the same salutary results on state banking practices. But again the pressure for cheap credit built up popular resentment against the Bank and again the Congress refused to renew the charter when it expired in 1836, and again the same chaotic conditions followed. From 1836 to the creation of the National Banking System in 1863, the country was without a reliable banking system or a reliable medium of exchange.

### THE ERA OF "WILDCAT" BANKING

With the Bank of the United States out of the picture there was a mushrooming of privately owned banks operating under state charters. Except for New England (where the Suffolk Bank of Boston was able to exercise the disciplines hitherto exercised by the Bank of the United States for the country as a whole) and in a few states with stringent provisions against over-issue backed by strict enforcement, these new banks issued notes far in excess of their specie reserves. To protect the latter the banks frequently established their official head offices (the places at which they undertook

to redeem their notes in specie) in such inaccessible places that "they could only be reached by a wildcat." This is the origin of the expression "wildcat banking" which came into current use at this time. The excessive issues of bank notes, which began even before the final liquidation of the Second Bank of the United States, contributed to the inflationary boom of the mid 1830s, the ensuing collapse, and the panic of 1837 during which most of the banks of the country had to suspend operations with huge losses to the holders of their notes.

President Andrew Jackson spearheaded the attack against the Bank. After his election in 1832 he started shifting the accounts of the federal government from the Bank to private state banks, frequently on the basis of political service to the party. These banks came to be known as "the pet banks." When the state banking system collapsed in 1837, the government lost heavily.

**The Independent Treasury system.** Nonetheless the Congress refused to reverse itself. Instead it provided that the federal government should protect its own funds by keeping them in the Treasury. Branches of the Treasury were established in the various parts of the country for this purpose. The Independent Treasury Act (passed in 1840, repealed in 1841, and renewed in 1846) successfully insulated the government's funds from the fortunes of the private banks but with very bad effects upon the private banking system. When government receipts exceeded government disbursements, specie was drained out of the reserves of the private banks. The converse happened when disbursements exceeded revenues. These alternate expansions and contractions of specie in circulation were unrelated to the monetary needs of the economy and complicated the task of providing the country with a reliable and flexible banking system.

### THE NATIONAL BANKING ACT

During the Civil War, as during the War of 1812, the lack of a sound private banking system complicated the problem of war finance. The direct resort to the printing press in connection with the issue of Greenbacks described earlier was one of the ways in which the government raised funds. The ensuing price inflation and the disappearance of gold from circulation convinced the Congress of the imperative need for a sound private banking system. In 1863 the National Banking Act was passed, with further revisions in 1864. The purpose of the Act was twofold. First and foremost, it was designed to provide the country with a reliable medium of exchange which would have the same value all over the country.

The second purpose was to create a market for government bonds.

**The note-issuing privilege.** The Acts provided that banks which took out national charters might purchase government bonds, deposit them with the Treasurer of the United States, and receive in return "currency" (for the time being, Greenbacks) up to 90 percent of the current market value of the bonds, although not more than 90 percent of their par value. In practice this meant that a bank could earn double interest on a purchase of government bonds—first the interest on the bonds themselves and, second, interest on any bank loans it might make to customers by lending its own notes. The Greenbacks provided the legal tender reserve for redemption purposes. These bank notes, which bore the names of the issuing banks, were direct obligations of the banks, but they were now backed to more than 100 percent by the earmarked bonds deposited with the Treasury. If a bank failed, the proceeds from the sale of these bonds protected the holders of the notes. The notes were thus as good as the credit of the United States government itself. To increase their acceptability they were made legal tender for all transactions with the government, except for payments of duties on imports, interest on the national debt, and for the redemption of the Greenbacks. In this fashion a sound medium of exchange was provided, but the operation of Gresham's Law still permitted the unsound notes of the state-chartered banks to drive the new currency out of circulation. Under the Constitution the federal government could not deprive these banks of the right to issue notes. A way out was found in 1865. Invoking its power to tax, the Congress placed a 10 percent tax on state bank notes which destroyed the profitability of issuing them and led to their complete disappearance from circulation.

**The reserve requirements.** Another significant feature of the National Banking Act was the recognition that demand deposits represent a bank liability similar in nature to outstanding bank notes and that excessive credit expansion is possible through an undue expansion of "created deposits" as well as through an undue issue of bank notes. To guard against this danger the Act established minimum reserves applicable against deposits *and* note issues. National Banks were divided into three classes according to the sizes of the communities in which they were located—country banks, reserve city banks, and central reserve city banks—and minimum reserves were specified for each of the three classes, varying from 15 percent for country banks to 25 percent for reserve city banks. Originally New York and later Chicago and St. Louis were

declared to be central reserve cities. Central reserve city banks were required to hold all of their reserves in their own vaults. Country banks were authorized to redeposit 60 percent of their reserves in other banks and still treat them as part of their legal reserves. Reserve city banks could redeposit 50 percent of theirs.

**An appraisal of the National Banking Act.** The Act finally brought to an end the long and sorry history of unsound bank notes. The elimination of state bank notes was an unmixed blessing. The country was at last in the possession of a form of currency which was much more economical and convenient than an equal amount of gold and silver coins and much less liable to abuse than an equal amount of government fiat money. Nonetheless the experience of the next few decades was to show that the system possessed two serious weaknesses: the inelasticity of the note supply and the perverse elasticity of total bank credit which resulted from the redeposit provisions of the Act.

*The note issue was inelastic.* Notes backed by government bonds are highly inelastic in quantity. As long as there were enough government bonds outstanding to support the volume of notes required to meet the demand for pocketbook money, no difficulties arose. But in the years following the Civil War there was an enormous expansion of population, of production, and of trade and hence a need for more and more pocketbook money. This need could not be satisfied by the National Banks because the revenues of the federal government quite regularly exceeded its normal expenditures. The difference was applied to the reduction of the Civil War debt, and this forced a reduction of the volume of national bank notes. Had it not been for the rapid development of deposit banking, the deflationary pressure on prices would have been even greater than it was. The decision to suspend redemptions of the Greenbacks, the agitation for free silver after 1873, and the limited silver purchases authorized in 1878 and 1890 represented efforts to escape from this deflationary price squeeze, which carried the general price level down from 127 in 1865 to 71 in 1894. This secular inelasticity of the note supply must be counted as a weakness of the system.

*The redeposit privilege.* The second weakness of the system developed out of the tendency of the reserve city banks and the country banks to redeposit a large part of their legal reserves with New York City correspondents because of the willingness of these banks to pay interest on such deposits. This willingness was due to the fact that the rapidly developing New York securities market

created a demand for short-term bank accommodations by persons engaged in buying and selling and speculating in securities on margin. The New York banks provided a large part of the money needed for these operations through very short-term loans secured by the stock market securities as collateral. The result was that the effective reserves of the reserve city banks and the country banks were, in fact, much less than the legally required reserves. Any sudden and widespread demand for cash by banks in any part of the country could and frequently did create a chain reaction with the pressure concentrating on the reserves of the central reserve city banks, particularly those in New York. To keep their reserves above the 25 percent legal minimum, they were forced to call loans. Borrowers, in turn, were forced to sell securities, thereby depressing stock market prices; falling stock market prices reinforced the demand for cash.

*"Runs" on the banks.* Bitter experience in the panics of 1873, 1893, and 1907 proved that even moderate increases in the demand for cash by country and reserve city banks could endanger the entire system. On each of these three occasions it was necessary for the banks to suspend payments in cash, i.e., to refuse to honor checks drawn on them. During these periods cash was at a premium, just as in the colonial days gold and silver were at a premium over depreciated paper currency.

Periods of panic were also marked by so-called "runs" on the individual banks in the country. Persons with deposits in the banks were very sensitive to rumors that their banks might not be able to honor checks with cash. In their stampede to withdraw their accounts before the banks stopped payment, they would force even the soundest of banks to do just that—stop payments in cash.

This problem was not solved under the National Banking Act nor even under the Federal Reserve Act to be discussed below. It was not attacked directly until 1933; in the Emergency Banking Act of that year, the Federal Deposit Insurance Corporation was created. The Corporation was reorganized and given permanent status under the Banking Act of 1935. The Corporation guarantees against loss the deposit of each bank customer in an insured bank up to a maximum figure, originally set at \$5,000 but now raised to \$10,000.

The mere existence of this kind of guarantee seems to be sufficient to keep the average depositor from joining others in sudden demands for cash. This is fortunate, because even the F.D.I.C. would find it difficult to cover current demand deposits, totaling

over \$100 billion, with the current stock of cash, totaling around \$30 billion.

The capital funds of the Corporation were originally provided partly by the Treasury and partly by the Federal Reserve Banks. In addition, all deposits of insured banks are subject to a yearly assessment of  $\frac{1}{12}$  percent. When a bank fails, the insured portion of each depositor's account is made available to that depositor, usually in the form of a deposit in another bank in the same area. The Corporation takes over the affairs of the failed bank and sees it through the liquidation period. The Corporation also exercises certain regulatory powers over all insured banks, particularly those not affiliated with the Federal Reserve System. Deposits in more than 95 percent of all commercial banks are now insured by the F.D.I.C.

### THE FEDERAL RESERVE SYSTEM

The Federal Reserve Act which was passed in the first year of the Woodrow Wilson Administration was designed to remedy the weaknesses which had been revealed by 50 years of experience under the National Banking Act.

**The structure of the system.** The Federal Reserve Act represented an ingenious reconciliation of the popular suspicions regarding the concentration of financial power which central banking appeared to involve, and the practical necessity of devising a flexible yet sound banking system in which both notes and deposits would be safe and yet capable of being expanded and contracted to meet the ever-changing requirements of trade.

Instead of a single central bank of the European type, similar to the one in our central bank model in the preceding chapter, the Act established 12 regional banks, each located in the principal city of its region or district. They are tied together through the Board of Governors of the Federal Reserve System. Technically the Federal Reserve Banks are privately owned since all of the capital is supplied by the Member Banks. All National Banks have to be members; state-chartered banks may be admitted to membership if they satisfy certain minimum requirements. Each member is obliged to keep its subscription to the capital of the Reserve Bank of its district at a fixed percentage of its own capital. With a few minor exceptions which do not concern us the Federal Reserve Banks do business only with the Member Banks, which are required to keep all of their legal reserves with their Federal Reserve Banks, and with the federal government which also keeps large balances

with the Reserve Banks. By debiting and crediting these accounts, the Federals handle the enormous daily volume of check clearings not only for their members but also for the many small nonmember banks, since the latter use Member Banks as their correspondents. The earnings of the Banks are limited to 6 percent of their capital and surpluses. Excess earnings revert to the Treasury.

The Board of Governors consists of seven members appointed by the President and confirmed by the Senate. The Board of Directors of each Federal Reserve Bank consists of nine members; six elected by the member banks, half from their own fraternity, half from the leading businessmen of the region, and three appointed by the Board of Governors as representatives of the general public. The Directors appoint the President and the Vice-President and the officers and employees. The first two appointments must have the approval of the Board of Governors, and all salaries and wages must likewise have their approval.

Central direction is provided through the Board of Governors. Some local autonomy is preserved through the powers vested in the Boards of Directors of the 12 Banks. The members of these Boards are familiar with local conditions and can thus influence, to some extent, the decisions of the Governors. The Board of Governors and its large technical staff and its wider knowledge of national and international developments, in turn, influence the thinking of those at the regional level.

The Federal Reserve Banks are able to influence the entire private banking system—which is made up of approximately 7,000 member banks and 7,000 small nonmember state banks—because of its ability to create and destroy credit instruments directly, and its ability to influence the creation and destruction of credit instruments by the Member Banks. Their ability to create and destroy credit instruments directly is due to the fact that they themselves operate on the basis of fractional reserves, applicable against their demand deposits and their note issues. Originally their reserves were gold coin and bullion. At present they consist of the gold certificates which the federal government issued when it called in all private gold holdings. The Federals are now authorized to incur demand liabilities (demand deposits and Federal Reserve notes) up to four times their gold certificate reserves. This means that they can lend to their customers, the member banks and the government, without the necessity of calling old loans, as long as their reserve ratios are above the 25 percent level, and it is their practice to maintain their reserves well above this level. Their

ability to affect the legal reserves of the member banks enables them to influence the credit policies of these institutions. Their influence is further increased by the monopoly of the note-issue privilege conferred upon them by the Federal Reserve Act. Neither the state nor the national banks can now issue their own notes. To meet the demands of their customers for cash they are dependent almost entirely on silver certificates, Greenbacks, and Federal Reserve notes. The supply of Greenbacks is completely inelastic; the supply of silver certificates is relatively inelastic, the increase being determined by the law governing the purchase of silver. The elastic element is provided by the Federal Reserve notes. Banks may obtain these as required to satisfy the needs of their customers by drawing down their reserves with their Federal Reserve Banks. An increase in Federal Reserve notes in circulation reduces their excess reserves and hence their ability to create demand deposits.

**The purposes of the Federal Reserve System.** The primary purposes of those who framed the Federal Reserve Act appear to have been four in number:

- (1) to centralize the reserves of all the national banks into a common pool so as to prevent the development of the chain reactions (the runs on the banks) which occurred periodically under the National Banking Act;
- (2) to provide an agency to serve the government in fiscal matters and thus eliminate the cumbersome and unsatisfactory Independent Treasury system;
- (3) to provide an elastic currency that would expand and contract to meet the seasonal and cyclical needs of the business community; and
- (4) to provide a means of checking either inflationary expansions or deflationary contractions of bank credit.

We shall first discuss these objectives, then analyze the means by which they were to be realized, and finally attempt an evaluation of the successes and failures of the system.

**An appraisal of the objectives.** 1. *The pooling of reserves.* On balance the centralization of the reserves of all of the banks appears to have been a desirable objective. In the first place it reduced the volume of reserves needed to support a given level of credit since all of the banks now have a pool of funds from which to draw as needed (under specified conditions) to meet unusual demands for cash. This represents an economizing of a scarce resource and strengthens the liquidity of the banking system as a

whole. On the other hand, this very pooling of reserves has serious inflationary implications in the event that a government and a Congress bent on inflation are able to control the policies of the Federal Reserve System. But, if a people come to the conclusion that inflation is preferable to deflation, they can have their way in any case; hence, on balance, this first objective appears to be in the general interest.

2. *The fiscal agency function.* The defects of the Independent Treasury system were mentioned earlier. The system was tolerable as long as federal taxing and spending were small. At the present time the private banking system would be under intolerable strains if the short-term fluctuations in government balances, which figure in the billions of dollars, were alternately to flood them with cash and then denude them of reserves. Although the experiences of recent years raise legitimate doubts regarding many of the actual policies followed by the Treasury and the Federal Reserve System, there is general agreement that a central bank should serve as the fiscal agent of the government.

3. *The provision of an elastic currency.* The wisdom of providing an elastic currency is more open to question. If by elastic is meant merely the possibility of expanding the note issue to meet temporary and unusual demands for cash, such as that occasioned by panics, there is no doubt that the note issue should be elastic. When the term refers to the possibility of a steady increase of bank credit over time, then the objective becomes more doubtful. Unless great restraint is exercised, the Federal Reserve System can become an even more insidious engine of inflation than the government printing presses because the inflationary process becomes obscured and public opinion becomes confused.

4. *General price level stabilization.* The last objective, "to provide a means of checking either inflationary expansions or deflationary contractions of bank credit" comes very close to being synonymous with the objective of stabilizing the general level of prices. This raises an issue which will be discussed at some length in the next two chapters. It suffices here to point out that this objective can very easily clash with the requirements of the gold standard. If rising prices are caused by an influx of gold, then prices should be allowed to rise until international price level adjustments bring the gold movement to a halt. The converse holds true if falling prices are due to an outflow of gold. Our final appraisal of this objective must be deferred.

**The means for realizing these objectives.** In view of the discussion

of banking under the Central Bank model in the preceding chapter the discussion of means can be disposed of very briefly. The powers given to the Central Bank in that model were in fact substantially the same as those possessed by the Board of Governors of the Federal Reserve System. Those powers, it will be recalled, were four in number:

- (a) the power to alter at its discretion its own rediscount rate;
- (b) the power to liberalize or tighten up on the character of the bank paper it would accept for rediscount;
- (c) the power to engage in open market operations;
- (d) the power to impose changes in member bank reserve requirements.

In this section we shall see how successfully, in fact, these powers were used to accomplish the four objectives discussed in the preceding section.

*The pooling of reserves* was accomplished by the requirement that all member banks keep their legal reserves with the Federal Reserve Banks of their respective districts. *The fiscal agency* objective was accomplished by authorizing the Secretary of the Treasury to deposit public money with the Federal Reserve Banks and to require the Banks to act as fiscal agents of the United States. The Secretary of the Treasury may also use Member Banks as depositories. The old Independent Treasury system was finally liquidated in 1921.

*To provide an elastic currency.* It was provided that the Federal Reserve Banks should have the power to issue notes against reserves which were to consist of commercial paper (promissory notes and trade and bankers' acceptances) which had been rediscounted by the Federal Reserve for its member banks, plus a 40% gold reserve. It was believed that, as business activity increased, the volume of commercial paper in the hands of the Federal Reserve would increase, thus permitting an expansion of notes; conversely a decline in business activity would result in a contraction in their volume. These provisions have been changed so that any bank asset acceptable to the Federal Reserve Bank may now be used as collateral for the issuance of Federal Reserve Notes and the gold requirement has been reduced to 25%.

*The rediscount rate.* In order to control the expansion and contraction of credit the Federal Reserve was given two basic powers: first, the power to establish a *rediscount rate*; second, the power to engage in open market operations. It was believed that, as the com-

mercial banks expanded their loans, the necessity of maintaining their legal reserves would necessitate their taking some of the notes which they had discounted to the Federal Reserve and borrowing with these notes as collateral. If the Federal Reserve rediscount rate were high, the member banks would be unwilling, so the argument ran, to pay the charge. Hence they would be unable to make further loans to customers. If, on the other hand, the rate were low, the banks would be encouraged to rediscount and to seek more business. This system of encouraging or discouraging the expansion of commercial bank credit had worked very well in England, but there was an essential difference between the English system and our own. In England the rediscount rate usually stood above the rate charged by the private banks to their customers so that rediscounting was normally costly; in the United States, however, the rediscount rate has normally been below the level charged bank customers so that there has always been an incentive to rediscount. Fortunately the tradition against being in debt to the Central Bank (the Federals in this case) has prevented any excessive use of borrowing from the Federal Reserves. In this country changes in the rediscount rate have been more of a signal of the thinking of the Federal Reserve officials as to whether credit should be expanded or contracted than an actual weapon for controlling credit directly.

*Open market operation.* Open market operations constitute a much more potent weapon of credit control. How they affect reserves and hence the capacity of member banks to extend credit has been sufficiently explained in the preceding chapter. The reader should review this explanation at this point to make sure that he understands clearly why Federal Reserve Bank sales of securities tend to tighten bank credit and purchases tend to loosen bank credit.

**An appraisal of rediscounting.** During most of the 40 years since the establishment of the Federal Reserve System, the Federal Reserve Bank rediscount rate has not been very effective. The large increase in the gold stock of the country and the corresponding increase in bank reserves occurring during and immediately following World War I freed the banks from the need to go to the Federals for additional credit. In the years 1929-1933 borrowings of member banks did rise slightly as they sought to replenish cash depleted by the unusual volume of withdrawals of currency by customers, but even then the total amount of such borrowing was little more than one billion dollars. Not again until 1952 were Member Banks forced to resort to the Federal Reserve for credit to any significant extent and again the pressure was merely temporary.

The early years (1929-32) of The Great Depression proved that the Federal Reserve could not, through its rediscount rate, prevent widespread bank failures in the face of a severe decline in business activity accompanied by large-scale withdrawal of funds from the banks by their customers. Nearly 6,000 banks with approximately \$4,000,000,000 of demand deposits were forced to suspend their activities during the four year period—nearly 25% of the total number of banks. These figures do not include the 3,000 odd banks which were closed during the brief 1933 Bank Holiday and which did not subsequently reopen their doors. The wave of failures had become so acute by early 1933 that a nation-wide Bank Holiday was declared in March of 1933 shortly after Franklin D. Roosevelt was inaugurated as President. In the six year period 1930-35 the total number of banks was reduced from almost 24,000 to barely 16,000.

In the years immediately following the Bank Holiday confidence in the banks was restored, funds flowed back to the banks, and excess reserves rose to the unprecedented level of \$3,000,000,000 in 1936. The capacity for a great expansion of the money supply was present, but lacking demand for this money, the expansion did not occur. Unemployment during this period ranged from 10,000,000 to 12,000,000, thus blasting the hopes of the framers of the Federal Reserve System that they had devised a mechanism capable of preventing the up- and downswings of business activity which had characterized the behavior of the American economy from the very beginning of our history.

**Devaluation and World War II.** In an effort to expand American exports and raise domestic prices we abandoned the gold standard in 1933 and, when we returned 10 months later, it was with a dollar with a lower gold content.

The resulting increase in the mint price of gold contributed to the substantial influx of gold into the United States and to the creation of the excess reserves of the banking system mentioned above. The inflationary threat raised by these excess reserves led the Congress to give the Board of Governors the power to alter member bank reserve requirements upward by as much as 100%. This was in 1935. In two successive steps—in August of 1936 and May 1937, minimum legal reserves were doubled. These actions reduced the excess reserves of the member banks to something less than \$1,000,000,000, and forced them to restrict credit. Some economists attribute the short but very sharp recession of late 1937 and early 1938 to this destruction of excess reserves. The episode appears to prove that the Board of Governors of the Federal Reserve System can stop an

inflationary rise in the general price level, even if they cannot stop a deflationary fall in the general price level, provided the political authorities are willing to back them up.

With economic recovery excess reserves began to rise again—reaching a peak of \$7,000,000,000 in 1941. The greater portion of this increase was due to the transfer of gold to the United States as war threatened and then broke out in Europe. During the two and one-half years between mid 1938 and the end of 1940 the gold stock rose by \$9,000,000,000. Total currency in circulation and demand deposits rose by about \$14,000,000,000 during the same period, which prevented excess reserves from increasing even more than they did. Unemployment, however, still stood in the neighborhood of 8,000,000 at the end of 1940—one in 7 of the total civilian labor force.

Entry of the United States into the war in 1941 and the subsequent government deficits averaging nearly \$50,000,000,000 annually for the ensuing four years resulted in an increase of almost \$100,000,000,000 in the total money supply and brought the excess reserves of the banking system down to approximately \$1,000,000,000. Had it not been for the power of the Federal Reserve to purchase government securities, thus providing reserves for the member banks, this tremendous expansion of the money supply would have been impossible. Early in the war it became apparent that the Congress was not prepared to finance the war out of taxes. Large-scale borrowing was necessary. Treasury officials hoped that individuals and nonbanking institutions would purchase the bulk of these securities, and that it would be unnecessary to resort to borrowing from the banking system. At the same time, however, they were unwilling to permit the interest rate on the government debt to rise to a level that would induce a large amount of voluntary saving.

This decision made it necessary for the Treasury to work out an agreement with the Federal Reserve that the latter would support the price of government securities at par. In effect this meant that any individual or institution purchasing government bonds was assured of a steady resale market so that no risk of loss was involved. With this guarantee banks were able and willing to purchase these securities to the extent permitted by Treasury regulations and hold them as an interest-bearing secondary reserve against their deposits, in full confidence that if they needed to convert them into legal reserves or currency they could do so at any time. The banks, including the Federal Reserve Banks themselves, purchased approx-

imately \$90,000,000,000 of government securities, thus accounting for 90% of the total increase in the monetary supply.

The war was financed at a constant 2% interest rate, an accomplishment previously undreamed of for a conflict of such duration and magnitude. The banks held at the end of the war approximately \$90,000,000,000 of government securities which could be converted into cash or reserves at their own option so long as the Federal Reserve continued its policy of supporting the price of government securities at par. In so far as low interest rates on government securities tend to depress interest rates on other forms of indebtedness, the cost of borrowed money to private investors was at an artificially low level.

This artificial rate made it necessary for the government to ration credit. Regulation W setting forth minimum down payments on installment contracts and setting a maximum period for repayment of installment loans, and Regulation X prescribing minimum down payments on real estate purchases financed by banks, are examples of the rationing techniques (often called selective controls) which were employed.

A further consequence followed. So long as the Federal Reserve stood ready to purchase all government securities offered it for sale, the Federal Reserve could not limit the expansion of bank credit through the conventional methods of open market operations. Selling government bonds would have depressed their price. In short, approximately half the increase in the public debt arising from the war was directly monetized through sale of bonds to the banking system, and these bonds in the hands of the banks constituted a threat of even further increases in the monetary supply so long as they were readily convertible into reserves.

Whatever may have been the merits of supporting government bonds during the war, there is general agreement that continuation of this policy following the end of the conflict greatly reduced the power of the Federal Reserve to combat the inflationary tendencies that were present in our economy. It was not until the sharp post-war rise in prices had alarmed the public that the Federal Reserve finally abandoned the policy of supporting government security issues at par (March, 1951). Since that time the Federal Reserve has intervened in the market from time to time to maintain an "orderly" market or to loosen monetary "tightness." Interest rates, however, have risen sharply from their war-time levels and anti-inflationary weapons have apparently worked well, despite the end of direct credit controls such as Regulations W and X.

**An over-all appraisal of the Federal Reserve System.** Out of forty years' experience with the operation of the Federal Reserve System it is possible to reach certain conclusions as to its effectiveness and value. It has proved highly successful in performing such functions as the rapid clearing of checks, serving as fiscal agent for the government, and in providing reserves for banks in temporary distress. On the other hand, it has been clearly demonstrated that the powers granted the system to check both inflation and deflation have worked less well than expected. The war experience indicates that the System can actually contribute to inflationary pressures whenever the functions of the system are directed primarily to the job of supporting Treasury policy. If control of inflation is to be subordinated to this end, the Federal Reserve will be forced to employ direct controls rather than general monetary controls in its attack on rapidly increasing monetary supplies. Postwar experience has shown, however, that the anti-inflation weapons at the disposal of the Board of Governors can be used effectively whenever the Board is free to use them. On the side of checking deflation, our experience has been less hopeful. There seems to be no good evidence that monetary measures are likely to be successful in preventing a downswing of the business cycle. Perhaps the best hope is that, if anti-inflationary powers can be used wisely, the height of the upswing will be reduced so that inability to check a downswing will be less serious than it has proved in the past.

### SUMMARY

This review of the currency and banking history of the United States illustrates the preponderant influence which government policy has had on the monetary system. Although we have, on the whole, had a sound currency and have never experienced any of the drastic inflations which have gripped so many nations of the world, most impartial authorities would agree that we have been only partially successful in providing a satisfactory money. Wide up- and down-movements in the price level have prevented money from serving as an adequate store of value for particular individuals. Direct government intervention has been the cause of some of these swings, but others have been occasioned by behavior patterns of the private banking system. It is not, perhaps, too much to say that we can define in theory an ideal monetary system, particularly for an isolated economy, but our ability to translate this ideal into practice in a complex international world has still to be demonstrated. Despite this somewhat pessimistic conclusion it is

still true that more than 160 years of experiment have resulted in a system in which our currency is universally acceptable and individuals can rely, for the most part, on the soundness of the banks with which they do business. These are not merely minor accomplishments when we consider the chaotic conditions of our currency during the Revolutionary War and immediately thereafter, the era of "wildcat" banking, and even so recent an occurrence as The Great Depression with its widespread bank failures climaxed by a nationwide Bank Holiday, to say nothing of the chaotic monetary conditions in most parts of the contemporary world.

Still remaining to be solved, however, is the great issue of the proper relationship between the government and the banking system. Perhaps the great task of the monetary expert is to reconcile the conflicting demands of government fiscal policy and sound banking policy (see Chapters 41 and 42). We can be sure that the answer does not lie wholly in the abdication of monetary policy to fiscal policy, but we can be almost equally certain that the banking system can never become wholly independent of the needs of the government which creates it and provides the environment within which it operates.

After this review of American monetary experience we are now in a position to consider the international aspects of monetary management.

### *Questions:*

1. Define the term "currency"; identify the three types mentioned in the text; give an example of each type from American history.
2. "During the period when gold certificates circulated freely in the United States they did not increase the country's money supply." Explain and indicate the present legal status of the gold certificate.
3. Define "bimetallism"; identify the period during which this country had a bimetallic standard, the metals which formed the basis of the standard, and the reasons for the shift to the gold standard.
4. It is stated in the text that the framers of the Federal Reserve System sought to realize four objectives. Identify these four objectives and indicate with supporting reasons the extent to which (a) the First and Second Banks of the United States and (b) the National Banking Act realized these objectives.
5. Identify the Independent Treasury System and explain the reasons for its creation and for its final liquidation.

6. Identify the weaknesses of the National Banking Act and state briefly how the framers of the Federal Reserve Act attempted to deal with them.
7. Trace briefly the history of the bank note issue privilege from the establishment of the First Bank of the United States to date.
8. Identify the means by which the Federal Reserve System can influence the supply of currency and credit in the United States.
9. "Forty years of experience has shown that the Federal Reserve System's power to halt an inflationary boom is greater than its power to induce a recovery." Do you agree or disagree? Cite historical incidents in support of your position.
10. "The Federal Reserve System has proved in fact to be a more powerful instrument for inflation than the government printing press." Do you agree or disagree? Cite historical incidents in support of your position.
11. In the event that your answer to Question 10 is inconsistent with your answer to Question 9, is there any way in which you can reconcile the inconsistency?
12. Explain (a) how it was possible for the federal government to finance approximately one-half of the costs of World War II without causing any appreciable rise in the interest rate; and (b) why this method of financing contributed to the sharp rise in the price level in the immediate post-war period.

# *International Trade and the Gold Standard*

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THE purpose of the next two chapters is to find out whether it would be desirable for countries having trading relations with their neighbors to adopt monetary systems completely divorced from gold. We shall first identify the forces that lead to international exchanges of goods and services and note how they operate when all countries are on the gold standard. This is the subject matter of the present chapter. In the next chapter we shall examine the problems that arise when countries go off the gold standard. We retain the assumption that the peoples in the several countries operate their economies on the basis of private property and private enterprise. To simplify the exposition it is also assumed that the governments refrain from interposing artificial obstacles to international movements of goods, services, and people.

## THE THEORY OF INTERNATIONAL TRADE

Modern production involves an enormous number of exchanges of goods and services. As raw materials are separated from the ground, processed, and moved physically from place to place and from firm to firm en route to final consumers, each firm takes legal title to the goods, reimburses in money its suppliers, and is in turn reimbursed by its customers for the "value-added" as a result of its productive activities. Prices paid by final consumers to end-firms must be enough to cover all of the necessary outlays of all of the firms, if the production flow is to continue unabated. If the final prices more than cover outlays, new productive capacity will be added; if they fall short, capacity will be withdrawn.

Most of these exchanges involve persons and firms located in different areas. The exchanges (trade) are local, regional, inter-regional, or international, depending upon the location of the parties involved.

In economies organized on the basis of private property and private enterprise, firms tend to locate where the costs of assembling and processing resources and marketing the outputs are at a minimum. In a world in which there were no political frontiers, in which owners of resources were free to move, able to move, and willing to move with a view to maximizing the advantages to be gained (a) from putting their resources to work and (b) from spending their income claims, a definite location pattern would emerge. It would be an optimum pattern in the sense that no large number of persons could better themselves by moving from one place to another, and no firm could reduce its expenses of production by shifting from one place to another. Each firm would be of optimum size and would be producing at its optimum rate and at minimum total average unit cost. The higher rents that certain firms would have to pay for the use of superior land would appear to them as costs. Consequently all firms producing any given product would have the same unit costs regardless of location. The real wages of workers of comparable skills would be the same everywhere. The marginal productivity of capital would everywhere be the same. There would be no profits. Rents, and rents only, would show pronounced differences in different parts of the world. This would be due to the fact that land is immobile and that production is subject to the universal law of diminishing returns. The attractive power of any particular area would be exhausted when the rents paid by firms for the land necessary for their operations, and by factor owners in their roles as consumers for the land needed for their homes, just offset the economies to be gained from the particular location.

**The principle of absolute advantage.** Under these circumstances the firms properly located in a particular place would have an absolute advantage over firms located in unsuitable places, but no advantage over properly located competitors. Inter-area trade would be on the basis of *absolute advantage*. Bananas would not be grown in Maine and potatoes would not be grown in the Bahamas. Iron ore is widely distributed under the earth's crust. Production, however, would be confined to the marginal and better than marginal mines. The firms operating the better mines would have no advantage over those operating poorer mines, since their cost ad-

vantage would be offset by the rents they had to pay to the owners of the intramarginal deposits.

The owners of the resources devoted to mining would buy everything they needed from the sales of the iron ore. How far the ore would have to move to reach ore-using firms would depend upon the expenses of moving ore and the many other forces determining the location of these firms. Similar forces would be at work in the case of all other raw-material-using firms. Since the economies of size prevail in many industries, the individual plants in these industries would be widely scattered. Each plant would possess a limited monopoly in its immediate trading area, but would be in competition with rival firms at the frontiers of its natural trading area.

Cities would develop at points of low transportation costs, and the resulting concentration of consumer purchasing power would draw to these centers the firms that had most to gain from proximity to final consumers. Urban land rents would tend to impose an optimum size on each city. No urban center would possess the complete battery of firms necessary for self-sufficiency, nor would any region or nation. There would be local, regional, and national specialization, and a vast amount of inter-area trade. Firms would be located on the basis of the absolute advantages to be gained from their precise locations. None would have any relative advantage over competitors, as any economies resulting from location would accrue to landlords in the form of rent.

**The principle of comparative advantage.** The world-wide equalization of real wage rates for similar work and of interest rates for investments of equal risk requires an impossible degree of geographical mobility of labor and capital. Actually capital is only relatively mobile, and labor is highly immobile. Consequently in the real world large and persistent area differences in factoral rewards and in levels of living would persist even though governments permitted goods and people to move freely from area to area in response to inter-area price differences and inter-area differences in factoral earnings.

If a wealthy area, *W*, has a well-trained labor force, an ample supply of managerial talents, abundant natural resources, i.e., a favorable man-land ratio, and if capital growth exceeds the rate of population growth, the marginal productivity of labor will be much higher than in a poor area, *P*, where the opposite of these favorable conditions prevails. Per capita output will be much lower in *P* than in *W*, and rents, interest, and profits will absorb a much larger

proportion of the smaller annual product than they will in *W*. Exchanges between the two areas will not necessarily close the gap in living levels. On the contrary, the gap may widen unless capital movements from *W* to *P* and population movements from *P* to *W* occur on a far larger scale than can be expected in a world of diverse languages and cultures.

Even within the United States, surprisingly large differences in regional per capita incomes, and hence in regional levels of living, have persisted for generations despite the fact that very large inter-regional movements of both capital and labor go on continuously. The difficulty of closing the gap even under exceptionally favorable circumstances is shown by the regional per capita income figures in Table 25-1. The accompanying map shows per capita income payments to individuals according to a state-by-state breakdown.

The figures in this table show that the per capita incomes in the poorest regions rose more rapidly than those in the wealthier regions. In this sense interregional trade and interregional factor movements are tending to equalize factoral rewards in the United States exactly as economic theory would lead us to expect. At the same time it is important to note that the absolute gap between the richest and the poorest region widened in this 28-year period. In 1929 there was a \$582 differential between the Middle East and the Southeast. In 1947 the absolute gap separating the Southeast from the Middle East and the Far West, which had meantime moved into a tie for top position, had increased to \$676. This development within the United States shows why the competition of a relatively unindustrialized region becomes progressively more and more severe as it starts on the road to industrialization. We shall have occasion to come back to this point in the discussion of the Federal Government's wage policy in Chapter 32.

**Opportunity costs.** In a world with considerable factor immobility a substantial part of inter-area trade is based on the principle of *comparative* rather than *absolute* advantage. The favored areas are induced to specialize in the production of those things for which they are best suited and to depend upon less favored areas for most of their needs. They could produce most of these other things, but only at the cost of taking their limited resources out of their most effective uses. What they would have to give up, the sacrifices they would have to make, are known in economics as "opportunity costs." These costs are what induce firms in an area to specialize on the basis of comparative advantage. By selling a portion of the output of their specialties to the less favored areas, firms are able



to obtain (import) other things at less sacrifice than if they produced them locally. In similar fashion the less favored areas specialize in the production of those things for which they have either an absolute advantage growing out of climate or the presence of valuable natural resources, or for which their disadvantage is least. Capital movements from the favored areas to the less favored areas and population movements from the less to the more favored areas would increase the over-all effectiveness with which the world's resources are used, but even if these movements are inadequate, peoples everywhere will be better off if they specialize and trade on the basis of comparative advantage than if they refuse to trade.

How do people in an area discover the most suitable lines of activity in which to specialize? The answer is that the price mechanism automatically solves the problem. In favored areas the abundance of capital, know-how and specialized skills, relative to land and unskilled labor, lead firms to concentrate upon the production of those goods and services that make relatively little use of land and the more common types of unskilled and semi-skilled labor, and much use of skilled and supervisory labor and capital in the form of machinery, power, and other labor-saving devices. The relatively high prices paid to the owners of the scarce factors and the relatively low prices paid to the owners of the more abundant factors reward the firms that devote themselves to the appropriate lines of production and penalize those that fail to conform. The "opportunity costs" are too high to make it financially profitable to produce locally the goods and services that can be produced more effectively by firms in other areas where the proportionality of the factors of production and hence the relative levels of factor prices are different.

**Conforming firms require no protection.** What counts in inter-area trade is not physical output differences but money price differences. Goods move from areas where the money cost of producing them is low to areas where the money cost of producing them is high. In so far as the resources of an area are devoted to the production of things for which the area has a comparative advantage, the money cost of producing them will always be lower than in other areas. Hence the firms engaged in producing these things do not need to be protected from the competition of firms located in other areas. The high money prices that firms in high income areas have to pay for the relatively scarce factors of production force them to specialize in the production of goods which do not require

in their production large quantities of the scarce factors. It is only when firms in a wealthy area try to specialize and produce things for which the area possesses no comparative advantage that they suffer from outside competition. Unless the people in the area are willing to pay more to local producers than they would have to pay to "foreign" producers, such firms will be forced out of business.

Firms producing a product in an area which possesses no comparative advantage, or wishing to continue to produce it after the area has lost its comparative advantage, usually complain of unfair competition. If they are located in an area where real wages are high, they are likely to charge that firms located in less favored areas are "exploiting" their workers, and most workers in high wage areas will be inclined to concur in the charge. The charge, of course, rests upon a misunderstanding. The real competitors of these firms will not be the extra regional firms, but the local firms that have successfully adjusted their production to market forces. The "conforming" firms outbid the "nonconforming" firms for the locality's limited resources. The nonconforming firms can be protected only at the expense of the conforming firms. The latter are forced to surrender to the nonconforming firms some of the area's scarce resources. As a result, firms that require no protection are forced to contract. The full advantages of the territorial division of labor are lost. The population, as a whole, is less abundantly provided for; the general level of living falls.

The principle of comparative advantage does more than explain why rich and poor countries both gain from specialization and trade. It explains, for example, why a specialized worker will hire others to do things he can do better himself. The successful lawyer may be an excellent typist. When he first hangs out his shingle he finds it profitable to type out his own briefs and take care of his own correspondence. As his practice grows and his time becomes more valuable, he hires a typist. It pays him to do so, regardless of his excellence as a typist, just as soon as he is able to earn a trifle more than her salary from the additional legal work he is thereby able to handle. As the demands upon his legal knowledge increase, *his comparative advantage in typing turns into a comparative disadvantage*. It is the high hourly earnings of the strictly legal aspects of his work, and not the relatively low rate per hour of typists, that finally force him to abandon the typewriter. His net income would be reduced if a law were passed fixing an hourly rate for typists so high as to make it again profitable for him to do his own typing. Nor would such a law help typists as a group, though it would be very beneficial to the fortunate few who could still find jobs.

In brief, the theory of international trade is only an extension of the general theory of pricing developed earlier. It explains not only how the competitive efforts at profit maximization by firms within a single homogeneous market area lead to the most effective use of the resources of the area, but also how, through inter-area trade, these same efforts promote the most effective use of the resources of all the nations involved. International trade tends to bring about a dovetailing of production programs in areas widely separated in space and markedly different from one another in their natural and human endowments.

We now want to know whether this theory fits a world in which the different nations have different moneys. In the next section we explain the international functioning of the price mechanism in a world in which all of the nations define their national moneys in terms of fixed quantities of gold. In the following chapter we return to the problem of managed currencies divorced from gold in an international and interdependent world.

### THE INTERNATIONAL GOLD STANDARD

By adopting gold as the basis of their money systems countries automatically and unintentionally create an international gold standard. The value of each country's currency is tied to that of the others. Each can be expressed in terms of its neighbor's money. Their gold contents establish "pars of exchange," or parities. No one needing a foreign money will pay more than parity plus the costs of shipping to the country in question the gold equivalent; no one with a claim to foreign money and wishing to convert it into his own national money will offer more of the foreign money than parity less the cost of shipping the gold equivalent from the foreign country to his own country. Insurance and loss of interest en route are included in shipping costs. These costs establish the extreme limits of deviation from parity. They determine what are known as the "gold import" and the "gold export" points. The day-to-day prices of foreign moneys move between these points in response to changes in the supply of and the demand for the several currencies.

For almost 100 years prior to World War I, except for the period 1861-1879 when the United States was off the gold standard, the par of exchange between the American dollar and the British pound sterling was 4.866 with the export and import points at approximately \$4.89 and \$4.85. The relationship of the dollar to a number of the other national moneys as it was in the decade before World War I are shown here.

<u>Name of the Money</u>	<u>Par of Exchange</u>
French franc	\$0.193
German mark	0.238
Austro-Hungarian crown	0.203
Italian lire	0.193
Russian ruble	0.515

As long as the several countries adhere to the gold standard, their governments have only limited control over the behavior of their national moneys. Each one is in the position of the single bank in a national banking system. Any single bank can be denuded of cash if it persists in granting credits to customers at a time when the majority of the banks are curtailing credits, or refusing to expand them. In similar fashion, a single country can be denuded of its gold holdings if the banks persist in expanding credits at a time when the banks in the other countries are restricting credits. How this comes about calls for an understanding of a nation's *balance of payments* and the balancing mechanism.

### THE BALANCE OF PAYMENTS OF A NATION

Banks are under obligation to make payments abroad whenever their customers have to make payments to foreigners. Conversely, they gain claims to the moneys of foreign countries whenever foreigners have to make payments to their customers. Fundamentally, these obligations are no different from those arising in connection with transactions between parties located in different parts of a single country. In Chapter 22 we showed how these interregional obligations get settled through clearing house operations.

There is one important difference, however, between interregional and international transactions. The latter involve different moneys. An Englishman wants to pay his obligations in pounds sterling; an American wants to be paid in dollars. International banking provides the mechanism for making these payments.

Large banks located in the great trading centers of the world keep accounts in large banks in other countries with which their clients have dealings, just as the Prudential Bank of Middletown kept accounts with "correspondents" in New York, Chicago, and San Francisco. The claims and counterclaims arising as a result of international transactions are handled through these banks and, for the most part, get settled by cancellations on the books of the banks in exactly the same fashion as domestic transactions get settled

through regional and national clearing house operations. In both cases gold movements serve merely to clear up small balances.

**The items in a nation's balance of payments: The current account.** In general a nation's exports pay for its imports. Exports figure as credits on the right-hand side of a nation's balance sheet; imports as debits on the left-hand side. Exports give rise to claims on the moneys of foreign countries; imports create claims on the money of the importing country. The items in a nation's balance sheet are usually classified as *visible* and *invisible*. Merchandise exports and imports are the visible items. All the others are invisible. The most important of these invisible items are:

(a) *Tourist expenditures*: An American spending the summer in France needs French francs. The effect on the balance of payments is exactly the same as if he stayed at home and imported an equivalent amount of French goods. His expenditure appears as a debit on the left-hand side of the balance sheet. The expenditures of foreigners visiting the United States appear as credits on the opposite side of the balance sheet. For the United States tourist expenditures represent a large debit item; for a country like Switzerland the converse holds.

(b) *Shipping services*: When American-owned vessels carry foreigners or the goods of foreign firms, dollars are earned. They appear on the right-hand side of the balance sheet as a service export. Travel by Americans on foreign ships and shipments of American goods in foreign bottoms represent service imports and appear on the debit side of the balance sheet.

(c) *Insurance*: Billions of dollars move annually in international trade. They are insured against loss by insurance companies. Payments by foreigners to American firms are equivalent to exports; the amounts paid by Americans to foreign companies are equivalent to imports.

(d) *Banking*: The large banks in the great ports of the world provide much of the short-time credit involved in international exchanges. To the extent that foreigners make use of American credits, the American banks gain claims to foreign moneys; and the reverse, of course, holds true.

(e) *Interest*: The interest due on investments by foreigners in American enterprises constitutes a dollar claim on the American economy. It figures in the accounts exactly like an import of goods. Conversely, interest on American foreign investments has the same effect as an equivalent export of American goods.

(f) *Unrequited items*: Immigrant remittances, gifts, war debts,

reparation payments by defeated countries, costs of armies of occupations, all are examples of one-sided transactions or unrequited items. They have to be allowed for in striking the annual balance.

During the latter part of the 19th and the first decade of this century recent immigrants to the United States sent several hundred millions of dollars annually to relatives in their old homes. These remittances had the same effect as an equivalent import of goods. They paid for a part of our exports of goods and services. At the present time the American government, through our foreign aid program, and private individuals, through such organizations as CARE, are making billions of dollars available annually to governments and individuals in foreign countries. They support a considerable part of our large merchandise exports. Following World War I Germany, Austria, and the other defeated countries were required to make very large payments to the victors, and our allies owed us close to \$10 billion. If these obligations were to be met, the debtors had to increase their exports very substantially or decrease their imports in order to earn the necessary foreign moneys, and the creditors had to increase their imports correspondingly or decrease their exports. These one-sided payments called for drastic reallocations of resources in both the paying and receiving countries. On neither side was the will to make these changes present, and consequently the payments were never made in full. The efforts to collect them contributed to the debacle of the international gold standard, the return to extreme protectionism, and probably to World War II.

**The items in a nation's balance of payments: The capital account.** Merchandise transactions and items (a) to (f) in the foregoing list enter into a nation's balance of payments *on current account*. If the debits and credits are equal, a country is on a pay-as-you-go basis. The value of the claims it gains on foreigners as a result of exporting goods and services equals the value of the claims gained by foreigners as a result of selling goods and services.

(g) *Capital movements*: A country seldom ends the year with an exact balance on current account. Normally its firms and individual citizens are either buying abroad more than other firms and citizens are selling abroad, or else selling abroad more than other firms and citizens are buying abroad. According as the balance runs for or against it, a country is said to have exported or imported capital. The difference represents an international capital investment. It may be a short- or a long-term investment; it may be an equity investment or a fixed income investment. Bank deposits and the short-term notes of governments represent the principal forms in which foreigners make short-term investments. They come into ex-

istence automatically as a result of short-run fluctuations in international trading. If these short-run claims run steadily against a country, however, they must be converted into long-term investments or reduced by an out-movement of gold.

A young and growing country, such as the United States was throughout the 19th century, regularly imported more than it was able to pay for by its exports, visible and invisible. This was possible because men of wealth in England, Holland, Belgium, Germany, Switzerland and other countries found investment opportunities here more promising than in their own countries. They bought American real estate, federal and state bonds and the stocks and bonds of railroad, manufacturing, financial and commercial companies. With the funds thus made available, individuals and firms in the United States were able to buy, year after year, more than they were able to pay for by their current exports of goods and services. This represented a capital movement from areas where capital was relatively abundant to an area where it was relatively scarce.

From the beginning of World War I, and continuing up to the present time, capital movements have been primarily from the United States to other parts of the world. Moreover, the foreign investments of this period, more than those of the 19th century, have been away from equities and in favor of claims to fixed incomes. This type of investment is especially troublesome in periods of depression. The borrowers have to secure the foreign exchange at the very time when the fall in exports has cut down the supply. Equity returns, on the other hand (dividends on common stock, for example), are automatically reduced in bad times. Thus the form which international investment takes affects the ability of a country to honor its international obligations. The more a government dependent on foreign capital goes into business itself, the greater will be the volume of fixed income claims burdening its balance on current account.

The successful performance of the international gold standard during the 19th century was due in part to the fact that so much of the international lending of that period was in the form of equities. Growing socialization and the increasing hostility in borrowing countries to the foreign control of domestic enterprises, which common stock ownership gives, are responsible for this shift in the character of international lending. It has contributed to the breakdown of the international gold standard and to the trend toward managed national currencies, which is the subject matter of the next chapter.

(h) *Gold movements*: Gold movements occur when a country's imports exceed its exports by more than the amount which foreigners are willing to invest in the country. Prior to a gold movement there is likely to be a sharp rise in the volume of demand deposits

owned by foreign banks. This represents an involuntary and unintentional investment. Finding no profitable use for them within the country the foreign banks withdraw them by purchasing gold. The gold may be shipped abroad or "ear-marked." In either event the transaction reduces the deposits of foreign banks with the banks of the country losing gold and builds up their own gold reserves. This outmovement of gold does not occur until the money of the country under pressure has fallen to the gold "export point."

### THE FINANCING OF FOREIGN TRANSACTIONS

International transactions are handled through the Foreign Exchange Departments of a limited number of the larger banks in the different countries. Each maintains deposits with "foreign correspondents" (i.e., banks) in the countries with which its citizens have frequent dealings. Because of these deposits anyone in possession of the money of one country can buy the money of another country in the precise amount required. All he has to do is draw a check on his own bank. If his bank itself deals in the foreign exchange (money) of the country involved, i.e., if it has a deposit with a foreign "correspondent" there, the deal is completed directly. If not, the arrangement is made through one of the large banks specializing in the foreign exchanges, with which the smaller banks maintain balances.

It is evident that a very large volume of international trade can be handled without the need of international gold movements. Gold moves only when the flow of claims is preponderantly in one direction. Even then a gold movement may not be necessary. Several devices are available for avoiding or, at least, postponing a gold movement.

1. **Triangular and multilateral settlements.** The claims and counterclaims arising out of trade between any two countries are seldom equal. Country A, for example, may consistently import more in value than it exports to Country B; Country B, in turn, may regularly buy more than it sells to Country C; and Country C may buy more than it sells to Country A. Under these circumstances A banks will have deposits in C banks, while B banks will have deposits in A banks, and C banks will have deposits in B banks. Because of these deposits citizens of A can pay their debts to citizens of B in the money of Country C. These settlements simultaneously clear up C's debts to A and B's debts to C. Through an international exchange of bank credits, firms in the three countries have been able to buy and sell to one another without the necessity of

an international gold movement. Gold has served simply as the common measure of value.

The real world consists not of three but of dozens of countries with independent monetary systems. Nonetheless, during the heyday of the international gold standard, the bulk of international transactions were finally settled by exchanges of credits between the banks in the several countries. Trade was multilateral, not triangular or bilateral. Each country had trading relations with most of the other countries in the system. Final balances were settled through a few great banks located in the world's great trading centers, like London, Paris, New York, Berlin, Amsterdam, Tokyo, etc. Floating balances tended to accumulate in the form of deposits and short-term investments in the British money market, because the pound sterling was *the* international money. It was accepted everywhere because England's trade was extensive, and it was known that the Central Bank of that country (the Bank of England) stood ready to pay any foreign claim in gold and on demand.

2. **Short-term capital movements** provided a second method of avoiding a gold movement. As long as foreigners had complete confidence in the convertibility of a country's money, an increase of the Central Bank rediscount rate in a country threatened with a loss of gold could usually be counted upon to attract foreign funds. Foreign banks and foreign investors bought the money of the country under pressure in order to take advantage of the higher interest rate, thereby keeping the money under pressure from falling to the "gold export" point.

Despite these and other devices small gold movements constantly took place under the old international gold standard.

For one thing, gold figured as an ordinary article of export in the trade of a few countries with large mining operations. These gold exports supplied the entire international community with the new gold required to support national price levels.

Gold also had to move from a country whenever a persistent deficit in its balance of payments on current account could not be offset by foreign long-term loans or by the short-term investments described previously.

These small international gold movements had effects far greater than their magnitude would lead one to expect. This was due to their multiplier effect on the supply of money under Central Bank-fractional gold reserve banking.

**THE RULES OF THE INTERNATIONAL GOLD STANDARD**

If a country is to stay on the gold standard its Central Bank must take steps to check excessive losses of gold. These steps are not pleasant. It requires a strong and relatively independent Central Bank to initiate them and to carry them through. The banking laws of the 19th century were designed to give the Central Banks the resources and the independence needed to impose upon their economies the disciplines of the international gold standard.

The persistent loss of gold flashes an automatic signal to the responsible officers of the Central Bank that the national price level is too high. It is then incumbent on the Central Bank to protect its gold holdings which represent, in effect, the foundation on which rests the country's whole pyramid of bank credits. The means at its disposal were explained in Chapter 23. The Bank can (a) increase its rediscount rate; (b) tighten up on the character of acceptable rediscount paper; (c) increase the down payment requirements on purchases of stock exchange securities and consumer durables; (d) sell government bonds (open market operations); and (e) increase member bank legal reserve requirements. These operations reduce the legal reserves of member banks and thus force them to protect themselves.

The means at the disposal of the member banks were also discussed earlier. They can (a) rediscount commercial paper with the Central Bank; (b) sell some of their secondary reserves; (c) reduce loans to customers; and (d) raise their discount rates.

The rise in the Central Bank rediscount rate signals the need for caution in the making of new loans and cuts into member bank profits to the extent that they have to resort to the Central Bank. Central Bank sales of "governments" and member bank sales of "governments" and of the securities of private firms depress stock exchange values and thus raise the effective rate of interest on investments of every sort. Money becomes dear. The pressure is now passed on to the business community which converts physical assets into cash so as to get out of debt to the banks.

The impact of dear money falls first on business inventories which are largely financed by bank loans. Businessmen all along the line, from the producers of raw materials to the retailers in direct contact with final consumers, push their sales and cut down on their purchases. These efforts lead to price reductions which spread rapidly throughout the economic system. Profit margins fall, and

now the pressure is passed on from the firms to the owners of the factors of production.

The providers of risk capital—the equity owners—are the first sufferers. As long as inventory liquidation continues, most firms fail to cover total costs and cut-backs in production spread through the system. Business failures increase. Some unemployment is inevitable, and now the pressure is on the hourly rated and salaried workers. Wages and salaries fall, while the fear of unemployment tends to improve work performance.

The fall in wages reduces the pressure on firms. The interest burden, on the other hand, tends to increase. Interest on outstanding bonds must be paid, and the cost of new money needed to carry inventories and to meet reduced payrolls actually increases.

In brief, these developments bring about a general price decline. The price decline, in turn, relieves the pressure on the country's foreign exchanges. Imports decline and exports increase. This follows from the fact that goods and services move internationally in response to price differences. Deflation in a country that is losing gold thus tends to re-establish equilibrium in its balance of payments with other countries.

The rules of the gold standard also apply to a country which is steadily gaining gold. The influx of gold should be allowed to bring about a rise in the domestic price level. The Central Bank can promote this price rise by (a) lowering its rediscount rate, (b) liberalizing the character of acceptable rediscount paper, (c) reducing down payment requirements on stock purchases and on the purchase of consumer durables, and (d) buying government bonds in the open market.

We shall have more to say later about the forces that stop a recession and bring about a recovery. It suffices to note here that, under an international gold standard, the fall in prices in countries losing gold and the rise in prices in countries gaining gold reduce and finally remove the pressures on the former. As prices are brought into line, the exports of the gold-losing countries revive and imports decline. The drain on the gold supply ceases, and a return flow of specie may be expected, particularly if foreign savers see good investment opportunities in the depressed value of the country's securities. Business recessions and business recoveries become international. The international gold standard stops a boom in a single country before it reaches runaway proportions, and halts a depression before it takes on panic proportions. Thus, on bal-

ance, it has a stabilizing influence. But it also limits the power of a single government to deal with a depression as it sees fit.

### INTERDEPENDENCE OF NATIONAL PRICE LEVELS

As long as national moneys are freely convertible at ratios determined by their gold contents, international exchanges of goods and services tie national prices and national price levels together.

In a completely free trade world the prices of internationally traded commodities would be roughly the same in all markets. Persistent local price differences would be due to costs of transportation from points of origin to points of consumption, and to differences in local costs of production. If the short-run demand for a particular commodity in a particular market drove the price above the world level, imports would increase, the price would fall in that market, and it would rise in the markets from which the product had been diverted.

The uniform prices of products entering into world trade would, in turn, exercise an influence on the prices of goods and services which, for technical reasons, cannot enter into world trade. Thus suppose an internationally traded commodity, steel, for example, is being produced in Country A under such favorable conditions that the profits of the steel companies exceed those of firms producing goods and services that can be marketed only locally. Let us call the latter the Y firms. Competition will bring about a reallocation of resources. The firms in the steel industry will bid for the man power and capital attached to the Y firms with a view to expanding production; and new firms will be formed to take advantage of the favorable profit situation. Marginal Y firms will be forced out of business. As steel capacity and output expand, prices and profits will fall; as capacity and output in the Y firms contract, prices and profits will rise. Equilibrium is re-established when the rewards to the owners of the factors in all firms are equalized.

Thus international trade in a limited number of goods and services ties national price levels, as a whole, together and exercises an influence on factoral rewards as well. If trade is permitted to flow freely, and if competition in the several countries is reasonably effective, man power and resources get distributed between the X and the Y industries in the different countries in such fashion that, in the absence of capital or population movements, the national balances of payments on current account will be brought into equilibrium. The value of the exports of each country, visible and invisible, will equal the value of its imports, visible and invisible.

Some firms in each country find it profitable to specialize in the production of those internationally traded commodities in which they enjoy the greatest advantage or in which their disadvantage is least. The real incomes of the people in the various countries will be as high as is possible, given the industriousness, the resources, the technology, and the leadership at their disposal. It will be higher than if the governments prohibited or seriously limited imports by high tariffs or by quantitative restrictions. This is due to the fact that restrictions on imports restrict exports and thus narrow markets and prevent firms from realizing the full economies of specialization.

At the end of the section on the theory of international trade we asked whether the existence of sovereign nations with different monetary units would prevent the price mechanism from bringing about national specialization on the basis of absolute and comparative advantage. The answer is clearly "no" if all of the countries adhere to the gold standard and allow goods and services to move internationally on the basis of national price differences.

In the next chapter we explore the problem in a world in which one or all countries operate with managed currencies.

### *Questions:*

1. Summarize the policy conclusions that follow logically from the Model analysis of Chapter 23 and state the relationship of this and the next chapter to those conclusions.
2. Describe the world-wide industrial and location pattern that would finally emerge in a free trade world in which market competition everywhere was "pure."
3. Given this pattern would (i) land rents and land values be everywhere the same? (ii) interest rates? (iii) real wage rates for workers of comparable skills? (iv) would there be geographical specialization and inter-area exchange or trade? (v) if so, would this trade be based on the principle of absolute advantage or comparative advantage?
4. Define and distinguish between the principles of absolute advantage and comparative advantage and identify the conditions necessary to give rise to inter-area trade based on the principle of comparative advantage. Give examples of international trade based on each of the principles.
5. Explain in some detail how competitive market forces enable firms

in different areas to discover the economic activities for which they possess a comparative advantage.

6. Assume a peaceful world state in which the "what," "who," and "how much" decisions discussed in Chapter 3 and the "where" decisions with which we are concerned in this chapter are all determined by a World Planning Board on the basis of the political votes of the citizens instead of their dollar votes. Discuss critically the problems involved in assigning to each of the former nations and to each region within these larger areas the precise economic activities which would maximize the world's output of useful goods and services.
7. "A high national level of living depends primarily on a high level of real wages. The American tariff is responsible for the exceptionally high real wages prevailing in this country. Free trade, even though introduced gradually, would bring our real wages down to the very much lower levels prevailing abroad. The world as a whole might benefit, but it would be at our expense." Argue for or against the economic validity of this statement.
8. (a) Identify the principal items that make up a country's balance of payments (i) on current account, (ii) on capital account.  
(b) Indicate in the case of each item whether it constitutes a liability or an asset and explain the sense in which the two terms are used.  
(c) Identify the ways in which a country's adverse balance of payments on current account can be corrected within the limiting requirements of the international gold standard.  
(d) Define unfavorable balance of trade. Is it the same as an unfavorable balance of payments on current account?  
(e) Argue for or against the proposition that the balance of payments of a country, like the balance sheet of a single bank, must of necessity always be "in balance."
9. Using the distinction between the balance of payments on current account and on capital account explain (i) the conditions that lead to international gold movements and (ii) the principal domestic conditions that must prevail in a country losing gold if the loss of gold is to re-establish an economically sound balance; (iii) the internal adjustments that the loss of gold tends to bring about and why and how the loss of gold tends to produce these domestic adjustments. Do the same thing for a country that gains gold.
10. State the so-called rules of the international gold standard and identify the social groups that have to bear the major share of the

burden of adjustment (i) in countries losing gold and (ii) in countries gaining gold.

11. Argue for or against the proposition that the efforts of central banks to stabilize national price levels tend to prevent the adjustments required by the "rules of the international gold standard" and have therefore contributed to the breakdown of the standard.

## *Revolt Against the Gold Standard*

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THE gold standard, as described in the preceding chapter, no longer exists. For almost a generation now most countries have operated with more or less managed currencies, and many economists doubt the wisdom of even attempting to return to gold. They hold that its rules prevent governments from fulfilling their primary obligation, which is to maintain domestic full employment. The way in which governments are supposed to carry out this responsibility is discussed later. Here it suffices to point out why the gold standard is regarded as an obstacle to the maintenance of full employment.

**The indictment.** Briefly the case against the gold standard rests on the fact that it deprives a government of control of its domestic price level. If domestic prices rise relative to foreign prices, the domestic price level must be brought back into line, else the domestic market will be inundated with foreign goods. But firms cannot meet these foreign prices and stay in business, unless they can get their expenses of production down. Money wages, interest, and rents must fall. Wages in particular must fall, since, direct and indirect, they make up some three-quarters of the expenses of a nation's firms. Workers, however, will not accept wage cuts as long as they are all employed. Consequently firms lose money, reduce employment, and only then, when the unemployed begin competing for jobs, do money wages break.

Unemployment and wage cuts, however, so runs the argument, produce no automatic corrective. Idle workers are poor buyers, and the shadow of unemployment induces employed workers and other groups as well to cut their spending. Even a small increase

in unemployment, it is held, results in such a reduction in spending as to spread losses throughout the economic system. The relief of lower costs gained by firms in the export industries, and by those subject to international competition, is more than offset by the losses experienced by firms catering exclusively to the domestic market. Consequently factoral rewards must fall still further before business, as a whole, can again become profitable. Meantime the reduction in imports and the increase in exports destroy jobs abroad, start deflationary unemployment there, and reduce international trading generally. Local unemployment fans out and becomes world-wide unemployment with an enormous waste of potential production, a lowering of levels of living everywhere, and unnecessary tragedies to millions of families. The automatic forces of the market are regarded as powerless to halt the contraction until it has run its full course.<sup>1</sup> Governments, and governments alone, are in a position to prevent this sequence of events. But to succeed they must abandon the 19th century idea that the rate at which a nation's money exchanges for the moneys of its trading partners is sacrosanct. Maintenance of employment is more important than the maintenance of the gold standard. The gold standard forces countries to adopt a "beggar-thy-neighbor" method of adjusting to what is, after all, a general deficiency of purchasing power. Such, in brief, is one widely held argument against the international gold standard.

The purpose of this chapter is to examine the case for managed currencies. We shall proceed as follows. First we shall describe the international balancing mechanism in the case of a single country in an international community in which all the other countries remain under the disciplines of the gold standard. We shall discover that it is, in fact, much easier for any one country, particularly if it is small, to solve the difficulties of too high a price level by going off gold and letting its money seek its own level (devaluation) than by forcing its domestic price level down far enough to stop the loss of gold (deflation). But we shall also find that, even for a small country, the prospects of success will depend on whether it is or is not experiencing serious unemployment at the time it launches the experiment. Accordingly we shall examine the devaluation solution for a single country first on the assumption of substantial unemployment and then on the assumption of relatively little unemployment. Thereafter we shall consider the pos-

<sup>1</sup> See Chapter 29, p. 411 below for the forces that are supposed to halt the contraction and start the recovery.

sibilities of maintaining and expanding international trade in a world in which all countries undertake to manage their currencies in the manner described in our fourth model in Chapter 23.

But first we must define our terms.

### Some Definitions

*Deflation and inflation.* In Chapter 21 the terms inflation and deflation were used to describe general price level movements. We found that large price level movements were usually associated with large changes in the money supply (or in its velocity of circulation), but the words themselves were used to indicate the direction of change of the price level and not the direction of change in the money supply. Inflation, we said, means a general rise in prices; deflation a general fall in prices—both measured by some comprehensive price index. In this chapter we shall be concerned with the processes by which a general rise or general fall in the price level is brought about. Here the nouns and the corresponding verbs (to inflate, to deflate) have policy implications. The purpose is to bring the domestic price level into line with foreign price levels with a view to stopping undesirable large international gold movements. The assumption is that a government can deliberately bring about a change in its domestic price level through the devices described in Chapters 22 and 23.

*Devaluation and appreciation.* The terms devaluation and appreciation are used to describe changes in the rates at which a national money exchanges for other moneys or for gold. When the United States Government reduced the gold content of the dollar from approximately 22 to 15 grains of fine gold, this was an act of devaluation. When the British Government instructed the Bank of England to buy and sell dollars at approximately \$2.80 to the pound sterling, instead of the previous rate of \$4.01, that too was an act of devaluation, despite the fact that, from 1931 on, the pound sterling had ceased to be defined or redeemed in terms of a fixed quantity of gold. When recently the Canadian Government refrained from interfering with market forces which drove the Canadian dollar to a premium against the American dollar, this was the result of a decision to allow the Canadian dollar to appreciate.

Controlled inflation and deflation are the appropriate procedures for countries that intend to remain on the gold standard. We discussed these procedures in the preceding chapter. We showed (a) how small international gold movements affect the reserve positions of the commercial banks of the countries involved, (b) how changes

in bank reserves tend to produce slowly rising prices (inflation) in countries gaining gold, and slowly falling prices (deflation) in countries losing gold; (c) how these price level changes tend to reverse the directions of international gold movements; and finally (d) why enormous volumes of international transactions can be settled year after year by surprisingly small international gold movements.

The accompanying diagram (Fig. 26-1) may help make clear the interdependence of national price levels under the international gold standard and the way in which small gold movements react on national price levels. Our universe is two countries, A and B.

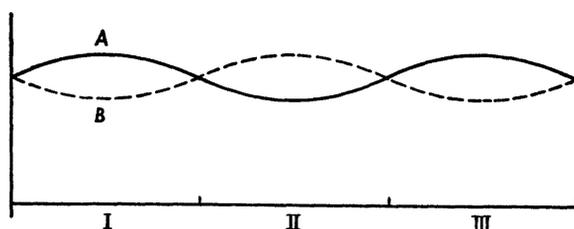


FIG. 26-1

Price levels are shown on the Y-axis; time periods, on the X-axis. At the outset of period I, A's balance of payments is such as to draw gold from B. Its price level is rising; that of B is falling. This change slows up, halts, and finally reverses the gold movement. Beginning about the middle of period I, A begins to lose gold to B. This forces a credit contraction in A and permits banks in B to expand credits. Consequently, prices in A begin to fall while those in B begin to rise. During period II the price level relationships are reversed and the stage is set for the movement into period III.

With this picture of the balancing mechanism under the international gold standard before us, we now want to know whether, in fact, governments can divorce the behavior of their price levels from those of their trading partners by abandoning gold, and yet keep the prices of their export industries competitive in foreign markets. Theoretically this can be done by permitting exchange rate fluctuations to take the place of price level fluctuations. Controlled devaluation and appreciation are the appropriate procedures for countries that intend to manage their own price levels, without regard to the behavior of prices in other countries.

### CURRENCY MANAGEMENT BY A SINGLE COUNTRY

If a country's price level rises relative to foreign price levels, the value of imports, visible and invisible, will exceed the value of exports, visible and invisible. Its balance of payments on current account will be unfavorable. Unless foreigners are prepared to invest in the country, or make charitable contributions, the country will lose foreign exchange. It will be confronted with "balance of payments" difficulties. It must choose between deflation and devaluation, or quantitative restrictions on imports. The mechanism of adjustment by deflation has already been described. In this section the devaluation alternative is examined. The assumption is maintained that the government refrains from imposing duties or quantitative restrictions on imports. Buyers are permitted to buy in the cheapest market and sellers to sell in the dearest market.

**Devaluation: The process.** The first step in the devaluation method of adjustment is to prohibit the private holding of gold and of foreign exchanges. The second step is to forbid the export of gold, except on government account. Thereafter, foreigners cannot convert their claims into gold and withdraw them in that form. They can repatriate them only as they are able to buy acceptable foreign exchange, i.e., the money of a third country which is freely convertible into their own money. What they will have to pay for foreign exchange will depend upon how much foreign exchange the devaluing country is currently earning from its exports.

The forces determining the value of the country's money can best be explained by a concrete example. Let us assume a world consisting of four countries, F, D, P, and M. Their national moneys, all defined in terms of gold, are called francs, dollars, pounds, and marks, respectively. For some years the official parities of these moneys in terms of dollars had been as follows:

The franc . . . . .	0.20
The pound . . . . .	4.00
The mark . . . . .	0.25

Because of a sharp rise in the price level in F, that country has been losing gold. The government goes off gold, while the others remain on the old gold standard. The value of dollar, pound, and mark exchange, in terms of F's money, is now determined by the demand for these moneys and the quantities which the Central Bank of F is prepared to release. At the old parities the quantities demanded exceed the quantities supplied. Consequently the

bids of those holding francs and wishing to exchange them for these other moneys force the franc below the old gold export point. It requires more francs to buy these moneys, but as their prices rise the quantities that will be taken decline. Henceforth these moneys are like apples, or any other commodity for which there is a competitive market. New prices emerge which equate quantities offered and quantities demanded. The franc falls until a new equilibrium is reached at, say, 15 cents in terms of dollars, instead of the old parity of 20 cents, and with comparable prices for the other moneys. The franc has depreciated by 25 percent. Or we may say that the franc has been devalued by 25 percent.

**Devaluation: The effects.** What effects will this devaluation have upon the economy of country F?

Overnight the prices of F's exportable goods and services have become cheaper to foreigners, although there has been no reduction in their prices, as expressed in francs. At the same time all foreign goods and services now cost more in terms of francs, despite the fact that their prices, as expressed in the moneys of the countries of origin, remain unchanged. F has become a good place for foreigners to buy *in* and a poor place for them to sell *to*. This change relieves the pressure on F's balance of payments.

The extent of the relief can be made clear by an example. Let us suppose that fine linen is an important article of export for country F and that in the year prior to devaluation 10,000 bolts were sold to firms in country D at 100 francs, or \$20 a bolt. At the new rate of exchange F's linen firms can afford to sell at \$15 a bolt and still realize 100 francs a bolt. The price will not necessarily fall to this level. If the demand for linen in country D has an elasticity greater than unity, it may prove possible to sell 12,000 bolts at \$18 per bolt. This is equivalent to 120 francs at the new rate of exchange. If so, the exported linen now yields \$216,000 ( $12,000 \times \$18$ ) instead of the \$200,000 ( $10,000 \times \$20$ ) under the old gold standard. When the dollars are converted into francs, the linen exporters realize 1,440,000 francs as against the one million francs realized prior to devaluation. The same holds more or less true for all other export products, depending on foreign elasticities of demand.

It is obvious that devaluation has increased enormously the profits of F's export industries. Consequently they bid for additional labor and capital. If the resources of the economy were fully employed at the time, this additional labor and capital must be withdrawn from firms catering to the domestic market. The result is a

change in the composition of the national output and in the pattern of resource utilization. More goods are produced for export and more resources are employed in the export industries. Less goods and less resources are available for satisfying domestic needs. The level of living in F falls, but the pressure on the country's balance of payments has been relieved; and this has been accomplished without any fall in the domestic price level and with only such transitional domestic unemployment as is involved in the shifting of labor from the domestically oriented to the export-oriented industries.

**Purchasing power parity.** A country cannot simply abandon the gold standard and allow the value of its currency to fluctuate in price as a result of day-to-day shifts in the supply of and demand for its currency. In that event the money becomes the football of domestic and international speculation. Its quoted price rises and falls on the basis of wild and unconfirmed rumors; orderly international transactions become impossible. No one dares to conduct regular business transactions in terms of a money of this sort.

The government must control the international value of its money as it is allowed to seek the new equilibrium that will bring relief from the pressure on its balance of payments. How is this level to be determined, and how is the money to be controlled during the transition to the new equilibrium position?

During the 1920s economists said that the new rate should be fixed on the basis of *purchasing power parities*. Relative changes in national price levels, as measured by some broadly based price index, would give the answer. A numerical example will clarify the concept.

Let us suppose that over a number of years prior to "going off gold" country F had been able to meet its foreign obligations without a strain on its balance of payments. This was taken to mean that its prices at that time were properly related to those of its trading neighbors. These prices are then expressed as index numbers and given the value 100. At the time of devaluation prices had risen by 5 percent in D, for example, and by 40 percent in F. Rather than attempting to force its prices down, the government of F decides to let its money seek its own level. At what level will the franc tend to stabilize? The purchasing power formula gives the answer:

$$(\text{old gold parity}) \times \frac{(\text{current D price index})}{(\text{current F price index})} = \text{the correct rate}$$

i.e., the rate which represents the purchasing power of the franc.

By substituting values in the equation we get our answer. Since the franc was worth 20 cents when the two countries were on the gold standard, the formula reads as follows:

$$20 \text{ cents} \times \frac{105}{140} = 15 \text{ cents}$$

The franc will be stabilized at 15 cents.

*Limitations of the formula.* Unfortunately the answer cannot be found as easily and as precisely as the purchasing power formula would indicate. There is no price index that measures the changes in the prices of just those goods that enter into international trade. The formula, moreover, measures a past relationship, not current relationships. At best, it provides a first approximation. The proper rate is found by a process of trial and error in which primary reliance must be placed upon changes in the Central Bank's holdings of foreign exchange.

At the outset of the transition period the government must fix provisional rates of exchange with all of its trading partners and defend these rates by offering to buy or sell foreign exchange at the provisional rates. To be in a position to do this it must, as we have seen, commandeer all of the foreign exchange in the possession of banks, firms, and individuals located within the country, paying for it in its own inconvertible money at the agreed rate. Thereafter, additional foreign exchange brought into existence by exports, by the receipt of interest on foreign loans, or by the repayment of the principal of such loans, must similarly be sold to the government (i.e., the Central Bank) at the provisional rates. The government, through the Central Bank must at all times be in sole possession of all the foreign exchange in existence. This foreign exchange constitutes the totality of the claims of country F against the assets of the countries against which the exchange is drawn. The government is thus in a position to sell or to buy large quantities of the various foreign exchanges at the rates provisionally established. Their prices are "pegged." No one will sell foreign exchange at less than or buy it at more than the pegged rate, as long as the government is able and willing to buy whatever quantities are offered, and to sell whatever quantities are demanded at the "pegged" rate.

If the "pegged" rate is held above the purchasing power parity rate (1 franc = 17¢ for example, when the real parity rate is 15¢), the Bank will find that the demand for foreign exchange at the pegged prices exceeds the supply currently generated by exports.

In that event the Bank will have to ration this foreign exchange, or dispose of part of the exchange in its possession when the decision was made to abandon the gold standard. Evidently the provisional rates are not true, or equilibrium, rates. The test of a *true equilibrium rate* is precisely this: that it shall neither build up unduly the Bank's foreign exchange holdings nor draw them down so seriously as to make the pegged rate untenable. We shall discuss presently the consequences of attempting to maintain rates that are above the equilibrium level. Here we assume that the government establishes new and lower rates when confronted by a drain on the Central Bank's foreign exchange holdings and that the process of adjustment is continued until the true equilibrium is reached. Thereafter, the rates would be raised or lowered with a view to maintaining the Central Bank's foreign exchange holdings at whatever level was regarded as necessary to weather short-run shifts in the country's balance of payments with its trading neighbors. Increasing the official franc prices charged for dollar, pound, and mark exchange would involve devaluation; reducing them would involve appreciation. The theory of a managed currency implies that the Central Bank will use either devaluation or appreciation according to the changing requirements of international trade and its own domestic program.

At the domestic level the aim will be to keep the national price level stable on the basis of some broadly based price index. If the population is growing and output is expanding, new money will be introduced into circulation by the methods described in Chapter 23 under the Fourth Model system, thereby avoiding any fall in the general level of prices. But unless all other countries adopt a similar policy, and unless technological change proceeds at an equal pace in these other countries, the domestic price level is bound to get out of line with foreign price levels. Under the international gold standard, as we have seen, control of the national price level was impossible. If prices rose above the levels prevailing abroad, the domestic price level had to be brought down; if prices fell below the levels prevailing abroad, exports would increase, gold would flow into the country, and domestic prices would rise. With a managed currency, exchange rate fluctuations take the place of price level fluctuations.

**The prerequisites for success.** So far as a single country is concerned, the case for a managed currency completely divorced from gold, convertible freely into other currencies and yet allowed to seek constantly its "purchasing power parity," is very persuasive.

Yet even here a number of conditions must be satisfied. As stated at the outset of this chapter, we shall discuss the conditions, first on the assumption that there was considerable unemployment, and then on the assumption that there was very little unemployment at the time the decision was made to abandon gold.

*The case of a country with considerable unemployment.* The first condition for success is that the bids by the profitable export industries for additional resources shall not drive up money costs and hence prices so high as to destroy the advantage of devaluation. Factoral costs represent incomes to their owners. Unless they can be held down, too little of the national output will be available for export, which is one of the purposes of devaluation. That they will be held down cannot be taken for granted since the original difficulty was due to the inability of the government to keep money costs, particularly wages, competitive with those in other countries.

The success of the experiment, therefore, will depend primarily upon the behavior of money wages. They must not rise as much as prices. This is the first prerequisite. It may not be difficult to satisfy this condition if there was considerable unemployment at the time the country went off gold. Until quite recently that was almost always the case, and it is our view that this must be the situation if devaluation is to solve a country's balance of payments difficulties. Devaluation, as we have seen, will increase the profit margins of the *export-oriented industries*. They will bid for additional labor. Until the pool of idle labor nears exhaustion, they may be able to get all the workers they need without bringing about a general rise in money wages. The wage component in the national income will increase because more workers are employed. Increased wage disbursements will result in an increased money demand for the products of the *domestically oriented industries*. Thus both sectors of the economy will feel the stimulus of the increased foreign demand. Under these circumstances the recovery may go forward very rapidly and with little if any upward pressure on the price level. Even if money wages should stiffen somewhat the economies resulting from fuller utilization of plant may actually lower unit costs of production. Increased employment and increased output may thus make possible increased exports, increased domestic consumption, and even increased imports.

A second prerequisite for the success of devaluation is that it shall not provoke retaliation by foreign governments. In the case of a small country this condition may very well be satisfied simply because the devaluing country's exports are too small to give rise to

a successful demand for protection against what firms in other countries may regard as unfair competition. The prospects for success are very much less, however, in the case of a large country whose exports and imports represent an important part of world trade.

The British abandonment of the gold standard in 1931 forced practically every other country off gold. We went off for a short time in 1933 and when we returned it was with a dollar with a smaller gold content, and only for the purpose of international trade. Devaluation thus failed to give Britain the price advantage in international markets that she would have enjoyed had her neighbors remained on the gold standard on the old terms. Again in 1949 the British Government undertook to relieve the pressure on her foreign exchange balances by reducing the value of the pound from \$4.03 to \$2.80 and again most countries promptly followed suit.

History is replete with cases of successful devaluation by single countries, especially small ones. Indeed, until quite recently, devaluations were almost universally invoked as a means of restoring domestic employment. And it was the success of these experiments that led many economists to the conclusion that international price adjustments via devaluations and appreciations were superior in all cases to adjustments via deflation and inflation. But since World War II something new has been added. Public opinion is now demanding and governments are accepting responsibility for the maintenance of full employment. Consequently we have had in recent years numerous devaluations undertaken for the purpose of correcting so-called "fundamental disequilibria" in national balances of payments by countries in which unemployment was conspicuous by its absence. The British devaluation of 1949 is an example of a full employment devaluation.

*Devaluation under conditions of full employment.* The first prerequisite for success here, as in the previous case, is that wage increases shall not wipe out the advantage of devaluation. But in this case success is much more doubtful, particularly in a country in which labor is strongly organized and the government is formally committed to maintain full employment.

The first effect of devaluation, as before, is to increase the profits of export industries. But now they can expand only by taking workers away from other jobs. This means that there must be a considerable rise of wages in the export-oriented industries, if these firms are to get additional labor. If wages as a whole are not to rise, there would have to be a fall in money wages in the domes-

tically oriented industries and in the public services. But one of the principal reasons for devaluation is to render unnecessary any fall in money wages in any sector of the economy; or, more precisely, devaluation is recommended because of the assumption that money wages will not fall in any sector of the economy. A sharp restriction of bank credit and increased taxes on wage incomes might prevent the increases in wages from driving up prices. But credit restrictions via an increase in the Central Bank's discount rate is a gold standard method of adaptation and is rejected by advocates of devaluation. They favor the maintenance of a low interest rate as a means of encouraging business expansion.

It follows, therefore, that devaluation, unless accompanied by permanent wage and price controls (and these are incompatible with the minimum requirements of a predominantly private enterprise economy), will necessarily be followed by a rise in the price level of the devaluing country. Including the considerations already advanced, there are three reasons for this. (a) The higher prices paid for foreign exchange leads to a rise in the prices of all imported goods. (b) The increase in exports reduces the supply of goods available for domestic consumption. (c) The increased money incomes flowing to factor owners leads to a bidding up of commodity prices and services.

This rise in prices reduces but need not wipe out entirely the advantages of devaluation. What is important is that the rise should leave the price level below those in the gold standard countries. A 30 percent devaluation followed by a 15 percent rise in domestic prices would leave the devaluing country in a sound competitive position. The program would have succeeded because some factor owners failed to get a 15 percent upward adjustment in their money claims. The curtailment of consumption forced upon them would release goods for export.

When the gold standard-deflation adjustment route is followed, the costs of adjustment fall primarily on profit makers and wage earners. Bond and mortgage holders, persons living on pensions and annuities, the white collar and other fixed-income groups are spared. Indeed their real incomes rise. When the devaluation route is followed, profits are spared. The fixed-income groups are forced to shoulder the main costs of the adjustment. But since the portion of the national income going to the fixed-income groups is relatively small, a portion of the burden has to fall on wage earners in the form of a lag of wages behind prices. Yet if money wages do not keep up with the cost of living, when the profits of industry gen-

erally are holding up, and the profits of the export industries are soaring, it is difficult for labor leaders to explain to their followers why they should have to take a cut in their real incomes in order to re-establish the country's international competitive position. And with the "full employment" that devaluation is supposed to make possible, it will be difficult, if not impossible to prevent them from demanding round after round of wage increases in a futile effort to keep up with commodity prices, which are necessarily driven higher by each successive round of wage increases.

These are some of the reasons why recent national devaluations have so often ended in disastrous runaway inflation.

### UNIVERSAL CURRENCY MANAGEMENT

So far we have considered the possibility of a completely managed currency in an isolated state, and in a single state in a world of independent nations in which all the others are on the gold standard.

**A recapitulation.** We found that a completely isolated state could operate with a managed currency and could enjoy the advantages of long-run price stability without the need of any tie-in of its money with gold. The money of account would be based upon the public debt, i.e., the public credit. The debt would be increased or decreased according to the changing needs of trade, but over time the debt would grow in order to provide the volume of money needed to handle the secular growth of population and of per capita output. We expressed doubts, however, regarding the wisdom of entrusting this difficult task to any government in this world of imperfect men and imperfect institutions.

Then, in the preceding section of this chapter, we considered the possibility of a single state operating with a managed currency in an otherwise gold standard world and we found that the proposal is entirely feasible, although the advantages are not as great as is popularly supposed. If the single country with its managed currency is to avoid the evils of secular inflation, labor and capital will have to be shifted back and forth between its export-oriented industries and its domestically oriented industries in much the same way as in countries operating under the disciplines of the international gold standard.

We now want to know whether all countries could simultaneously operate with managed currencies.

In the realm of pure theory it is possible to set up an international model in which all-powerful and all-wise governments

manage their several national currencies along the lines described earlier. Each government enjoys the complete confidence of its own people and of the peoples in other countries. Flights of capital are unknown. Devaluations and appreciations of the several currencies take place at the proper time and to the precise extent needed to maintain healthy and fair international competition. Each country, emancipated from the interdependence of national price levels imposed by the rules of the gold standard, is free to adopt the long-run domestic price policy that seems to it best. The one decides to pass on to all its people, as consumers, the fruits of technological progress in the form of secularly falling commodity and service prices and long-run stability of factoral prices; another elects to operate with slowly rising commodity and service prices, passing on the gains of technological progress in the form of a more rapid rise of factoral prices; a third prefers the intermediate solution: secularly stable prices for consumer goods and services and a slow rise of factoral prices.

The theory of universal currency management is very attractive, but we are not likely to see it realized in the near future. The essential element of confidence is simply not there. People everywhere either will look to gold or, failing that, will come to regard one among the national moneys as most deserving of their trust. In the 19th century and up to World War I the pound sterling was the international money of account. Since it was defined in terms of gold and redeemable in gold, it, in effect, provided the international gold standard long before the other nations formally defined their own moneys in gold. Private banks everywhere treated their holdings of pound sterling exchange as equivalent to gold and regarded their gains and losses of sterling exchange as equivalent to gains and losses of gold. At the present time the dollar plays the role that the pound formerly played. It provides the yardstick for comparing the relative values of all the other national moneys. Without such a common yardstick it seems safe to say that international trading would be conducted almost entirely on the basis of international barter agreements, with all the disadvantages that barter involves.

Freely fluctuating national currencies are objectionable on another score. They create a serious barrier to long-term international private investments. Such investments are always regarded as more risky than domestic investments. Uncertainty regarding future rates of exchange increases the risks and hence the costs of securing capital from abroad. Countries that need foreign capital can least af-

ford the freedom which comes from divorcing their moneys from gold, yet, paradoxically, it is precisely in these countries that the managed currency doctrine enjoys the greatest vogue.

**Devaluation and the "beggar-thy-neighbor" charge.** As was pointed out earlier in this chapter, the claim is made that the international gold standard forced countries to pursue a "beggar-thy-neighbor" policy whenever their economies failed to operate satisfactorily. They were accused of trying to cure unemployment at home by exporting it, i.e., by flooding foreign countries with low-priced commodities and by cutting down imports. But the same charge can also be made, *a fortiore*, against devaluation.

(1) In the first place, devaluation also stimulates exports and discourages imports. The impact of devaluation upon foreign producers is likely to be even more general, abrupt, and hence disruptive than that of deflation because it lowers by an equal amount the prices at which *all* exportable commodities can be profitably sold abroad, even though the prices of some of them are still highly competitive. Deflation, on the other hand, takes place slowly, irregularly, and by small steps. Prices fall first in one sector of the economy and then in another. Adjustments abroad to deflation would thus appear to be easier than to devaluation.

(2) In the second place, devaluation reduces the devaluing country's buying power in foreign markets more drastically than is the case under deflation. Literally overnight, the prices of all foreign goods are made higher to buyers in the devaluing country. Consequently the impact upon foreign export firms is again more immediate and more disruptive than under deflation.

(3) A third reason why devaluation is more likely to lead to international resentments than deflation is that it is more likely to be overdone. The purchasing power parity formula provides only a very rough guide as to the devaluation required to stop the loss of gold. Having decided upon devaluation, the government is likely to fix a rate which it is quite sure it will be able to defend, so as to avoid the shock to confidence that repeated devaluations always provoke. The temptation is to fix on a rate well below the true equilibrium rate. This gives the country a competitive advantage that can be very disturbing to the economies of other countries.

The French devaluation of 1926 made the price of French export commodities very low in foreign markets and led to a substantial rise in exports and a considerable movement of gold to France. Britain's employment difficulties in the latter half of that decade appear to have been due as much to the devaluation rate selected by the French government, as to

the decision of the British government to bring the pound sterling back to its historic parity with the dollar at the rate of \$4.86. This was the judgment of Dr. Walter Stewart, American Advisor to the Bank of England, as given in his oral testimony before the Macmillan Committee in 1930.<sup>2</sup>

When the deflation route is followed, export prices are not likely to fall any more than is absolutely necessary to make them competitive in world markets and the changes come gradually. Moreover, foreign assistance tends to come sooner and in the particularly valuable form of capital investments. Thus, after security prices have fallen and downward cost adjustments have been made, profit margins reappear and stock prices rise as abruptly as they fell. International investors are alert for just such opportunities and will take advantage of them, if they are confident that the link between the country's money and gold is solid. The resulting influx of foreign funds reduces the pressure on the country's gold reserves and at the same time provides resources urgently needed to finance the readaptation of the national economy to the changed requirements of international specialization and international trade.

The "beggar-thy-neighbor" charge levied at the international gold standard is thus grossly exaggerated. Devaluation, no less than deflation, leads to an increase in exports and a decrease in imports. Both methods make the maintenance of full employment in other countries more difficult; both require adaptations at home and abroad. On balance, the adaptations called for by the rules of the gold standard are less arbitrary, more impersonal, less political, and less disruptive of international trade and international good will than the adaptations brought about by devaluation. Historically, the international gold standard appears to have contributed to the health and vigor of the private enterprise system. Whether the system can survive the destruction of the gold standard remains an open question. It is true that a government cannot remain on the gold standard if it is unable to keep its economy competitive, flexible, and adaptable. But it is also true that devaluation will not solve the problems confronting such a government. On the other hand, any government that can preserve a workable capitalism can operate under the disciplines of the gold standard. Our own view,

<sup>2</sup> See *Monetary Policy and Economic Progress: Testimony of Dr. W. W. Stewart before the Macmillan Committee July 3-4, 1930* (No. 443 in the series "National Economic Problems," published by The American Enterprise Association, New York, 1950). In the light of subsequent development the interchanges between Dr. Stewart and J. M. Keynes, a member of the Committee, are of great theoretical interest.

therefore, is that, until something better has been found, the re-establishment of an international gold standard should be favored by all those who wish to preserve and improve the private enterprise system.

### THE CONSEQUENCE OF INADEQUATE DEVALUATION

This adverse judgment on devaluation as a national way of life does not deny the necessity of a redefinition of national moneys in terms of gold after some great calamity like a modern war. Suppose, for example, that at the end of a great war the price levels of our four-country world, D, F, P, and M, showed the following changes:

<u>Country</u>	<u>Pre-war price level</u>	<u>Post-war price level</u>
D	100	200
F	100	300
P	100	500
M	100	1,000

Under such circumstances it would be unwise to urge that the governments of F, P, and M should return to the gold standard at the old parities with the money of country D—the dollar. The re-establishment of the pre-war parities would require such a sudden and drastic reduction in prices in P and M, and also in F, as to provoke widespread bankruptcies, massive unemployment, and unnecessary suffering. No popular government could survive the ordeal. The thing to do under the circumstances is for the four countries to redefine the gold contents of their moneys, by agreement if possible, with the aid of the purchasing power formula, as described previously.<sup>3</sup>

With this kind of emergency devaluation we have no disagreement. What we have questioned is the claim that a country can insulate its domestic price level from the inflationary and deflationary forces coming from abroad by the type of currency management described in this chapter, and still contribute to the rebuilding of a prosperous, interdependent, and peaceful world economy. What we would urge is that governments should regard the gold standard as most of us regard marriage, i.e., as a durable contract, not lightly to be entered into and not lightly to be broken.

But once having decided upon devaluation, the devaluation should be sufficient to bring domestic prices down to the level pre-

<sup>3</sup> See p. 351.

vailing elsewhere. Otherwise the drain on the country's foreign balances will continue. In one fashion or another, the value of imports must be reduced to the value of the foreign exchange currently being earned by exports. If a country persists in defending an impossibly high rate of exchange, it must impose quantitative restrictions on imports and exercise close control of exports.<sup>4</sup>

In the case of imports the usual procedure is to restrict them to some fraction of those of an earlier period which is taken to represent normal conditions. National quotas have to be assigned to the importing countries. What formula shall be adopted for assigning quotas? The solution least likely to give international offense is to base the quotas on the performance of the earlier period. If country D supplied to country F, for example, one-third of commodity X during the base period it cannot complain if it gets one-third of the reduced amount now allowed to enter. Nor has the government of country M any legal basis for a complaint if its firms get their proportionate share of the quota, even though, in the meantime, these firms have succeeded in getting their costs and their prices below those of the firms in country D. From the diplomatic point of view the allocation has been nondiscriminatory, and hence "correct." Economically, however, the solution is far from "correct." Consumers in F are no longer allowed to buy in the cheapest market, and firms in country D have been favored at the expense of firms in country M. The price mechanism as an allocative device has been made inoperative.

No less vexing is the problem of deciding what firms shall be allowed to handle the quotas. Again the solution is likely to be to divide the quota among the old-established import firms on the basis of their shares of the imports of the base period. Thus old firms are protected against new firms; competition is destroyed, monopoly is promoted, and corruption is invited. A quota is now a very valuable privilege. It virtually guarantees a handsome and relatively riskless profit to its fortunate possessor. Businessmen can afford to show their gratitude in a handsome way to any official who is in a position to increase or decrease their quotas.

Nor can the government disinterest itself in the export trade. Exporters must be carefully supervised, lest part of the exchange

<sup>4</sup> A country which has long insulated itself from international competition by "pegged" exchange rates and quantitative controls on imports and exports may find it desirable to return to the gold standard only after a transitional period during which it maintains the complete convertibility of its money with all other convertible currencies but allows the rate to fluctuate freely in response to changes in the supply of and the demand for its currency in the foreign exchange markets.

they earn go into foreign hiding. Exports may also have to be directed toward certain countries, despite the fact that higher prices prevail elsewhere, in order to secure the foreign exchange needed to pay for essential imports. Consequently trade becomes bilateral instead of multilateral, and proceeds increasingly on the basis of short-term political arrangements in which government is pitted against government. Since the domestic market is more profitable than the foreign market, it is necessary to impose export quotas on firms capable of producing for either market.

The invisible items in the balance of payments must also be brought under control. Pleasure trips abroad have to be stopped or sharply curtailed since they use up part of the precious foreign exchange needed to cover essential imports. Men of means can no longer place their savings where they will bring the highest rate of return, if that means placing them outside the country. In brief, the attempt to maintain an artificially high rate of exchange and a stable domestic price level forces a government into a type of total planning that is entirely inconsistent with the operating requirements of a private enterprise system.

### IS THE UNITED STATES ON THE GOLD STANDARD?

The United States dollar now provides the world with its international monetary standard. It does so in part because of the large role that our exports, imports, foreign investments, and foreign gifts play in international economic affairs. But it does so still more because, with the exception of a very short period in 1933, the United States has been on the gold standard, so far as foreign countries are concerned. It is true that we reduced the gold content of the dollar in 1934, but foreigners with valid claims to dollars can take them in the form of gold, if they so desire. This is the acid test from the international point of view. As long as foreigners can collect their dollar claims in gold at the rate of 15 5/21 grains per dollar, the world is in possession of a common measure of value.

From the point of view of persons resident in the United States it is by no means so clear that we are on the gold standard. Certainly we are not on it in the original meaning of the term, which included the right of an individual to buy unlimited quantities of gold from the Treasury at the mint price and to dispose of it as he saw fit. This right was withdrawn by the Executive Order of April 5, 1933. All that a resident of the United States can do is convert assets into legal tender money which is redeemable by the Treasury in legal tender money.

The revolt against the gold standard is an outgrowth of the Great Depression of the 1930s and of the experience of World War I when national economies, divorced from gold and stimulated by enormous government spendings, were able to provide continuous employment for all able and willing workers. These two experiences also led to a revolt against the traditional view that market forces tend to keep a competitive private enterprise economy operating at the full employment level. Many economists now hold that government and only government can keep a private enterprise economy operating at this level. For some years past, and under the intellectual leadership of an eminent British economist, the late Lord Keynes, they have been busy working out a theory to support their position. It has come to be known as the theory of effective demand. Its implementation requires an accurate and up-to-date measurement of the national income and of some of its critical components. The government is supposed to be able to manipulate these components in such a fashion as to produce continuous full employment and expanding world trade.

### *Questions:*

1. "The international gold standard forces a country with a deficit in its balance of payments to correct the situation by adjustments that hurt its trading partners. This 'beggar-thy-neighbor' solution can be avoided by abandoning the gold standard."
  - (a) Develop the supporting argument.
  - (b) Identify the conditions that must be present in a country abandoning gold if it alone decides to abandon gold. Are these conditions more or less easily realized if the country is in a serious depression or experiencing a boom at the time it goes off gold?
  - (c) In what respects does the distribution of the burden of adjustment among social groups differ from that required under the rules of the international gold standard?
  - (d) Present the arguments for and against the thesis that "going off gold" enables a country to eliminate the deficit in its balance of payments in a way that is less harmful to the interests of its trading partners than the method required by the rules of the international gold standard.
  - (e) Discuss critically the meaning of the term "deficit in its balance of payments" as it appears in the preceding statement. What assumptions are necessary to make the phrase meaningful?
  - (f) Distinguish between "going off gold" with the intention of returning to gold at a more appropriate rate and going off gold with the intention of allowing the national money continuously to seek its own level.

(g) Assuming that the government intends to return to gold but at a new and more appropriate rate, how is the government to determine what this new rate should be?

2. "There is an inherent contradiction between exchange rate stability with freely convertible currencies and domestic price level stability. A country which wishes to continue to enjoy the benefits of international trade can have one or the other, but not both."  
Argue for or against the correctness of this statement. If you regard it as correct, indicate, with supporting reasons, which of the two solutions appears to be more consistent with the operating requirements of the private enterprise system.
3. Discuss critically the advantages and the disadvantages of a world trading system in which all nations prohibit exports of gold yet undertake to maintain the complete convertibility of their currencies.
4. Argue for or against the correctness of the following thesis: Exchange stability that has to be defended by elaborate controls of domestic prices and by quotas on imports and exports is more damaging to international trade than a regime of convertible but freely fluctuating exchange rates.
5. To what extent does the present United States monetary system depart from the requirements of a 100 percent gold standard system?



## *II. The Market Economy*

PROBLEMS AND POLICIES

PART FIVE

### *Business Fluctuations*



## *Facts and Theories Identified*

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WE HAVE almost completed our account of the way in which an enterprise system behaves, but not quite. So far it has been taken for granted that the economy operates at what has come to be called "the full employment level." Transitional unemployment was recognized, but it was assumed to be the result of changes in consumer demand or of technological developments at home or abroad. It was taken for granted that such unemployment would last only so long as was necessary to get resources redistributed among firms in accordance with the requirements of the new situation. Since changes would be more or less continuous, it was recognized that this type of unemployment would always be present. But it would involve different people at different times and hence, for any one person, would not be of long duration, unless indeed that person held out for an uneconomically high wage. Such unemployment would be *voluntary*, and hence not a matter with which government should be concerned. Say's Law was regarded as adequate proof that there could be no such thing as massive and long-continued involuntary unemployment.

It was also recognized that seasonal forces would cause some involuntary unemployment. Building activities tend to be concentrated in the warmer months of the year. The planting and harvesting of crops cause seasonal fluctuations in the demand for labor. The heavy spending around the Christmas season has a similar effect. It was assumed that market forces would produce higher wages in seasonal employment than in regular employment, so that again there was nothing in this situation to justify a governmental intervention.

Thus, in fact, the only kind of involuntary unemployment that was recognized was transitional or *frictional* in nature, and it was

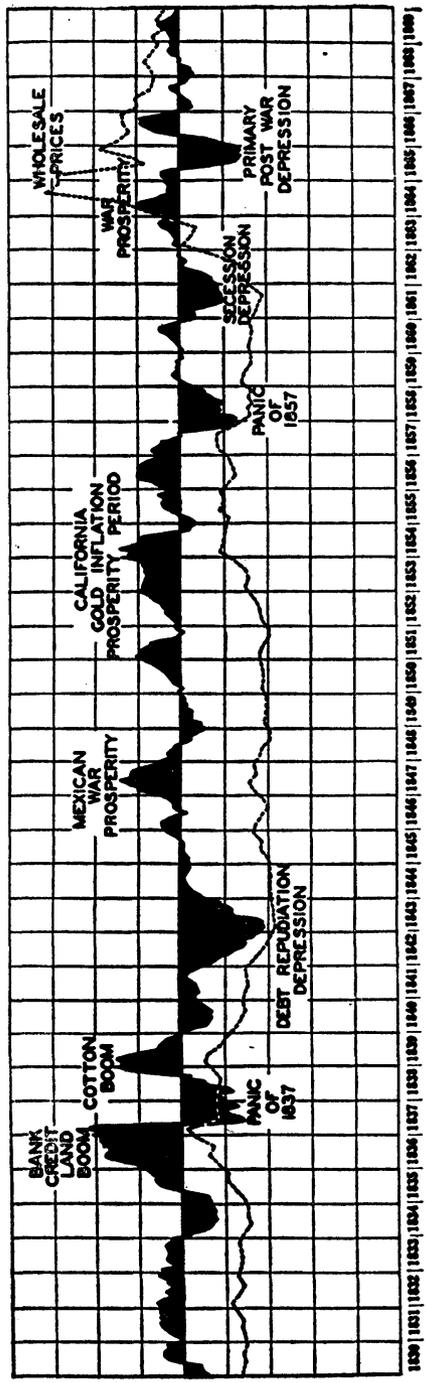
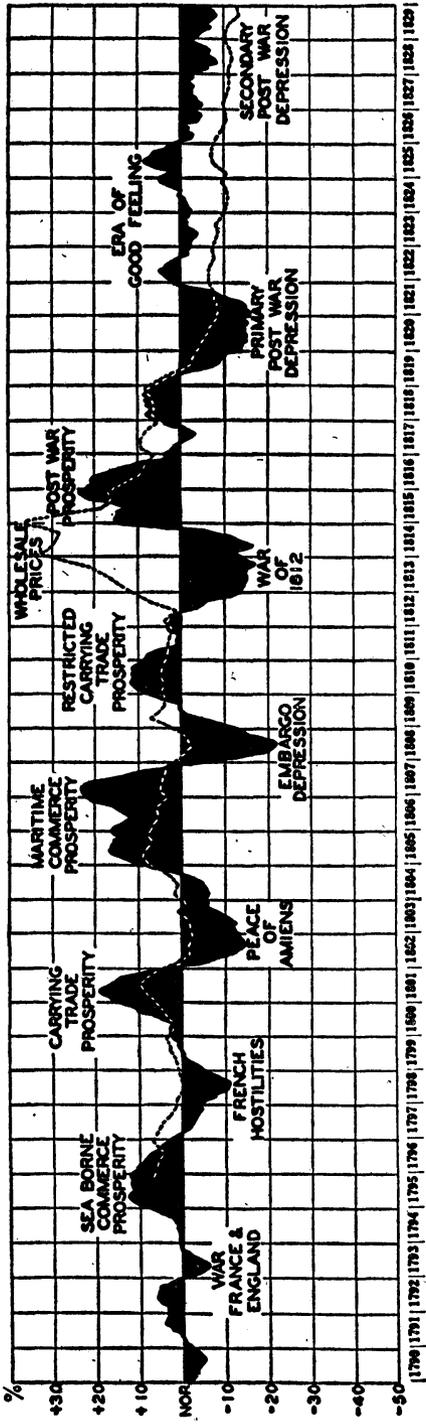
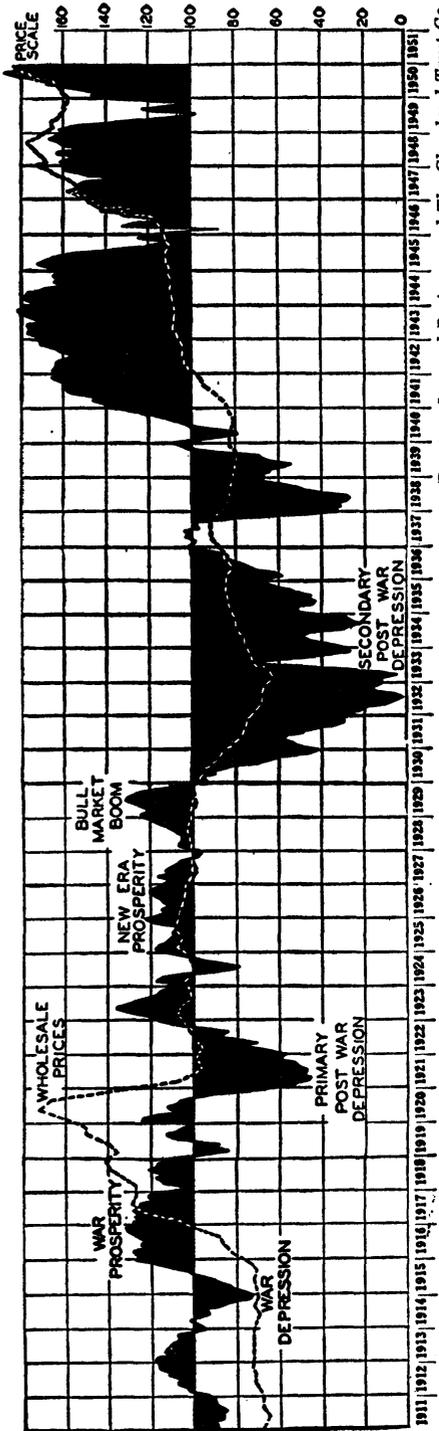
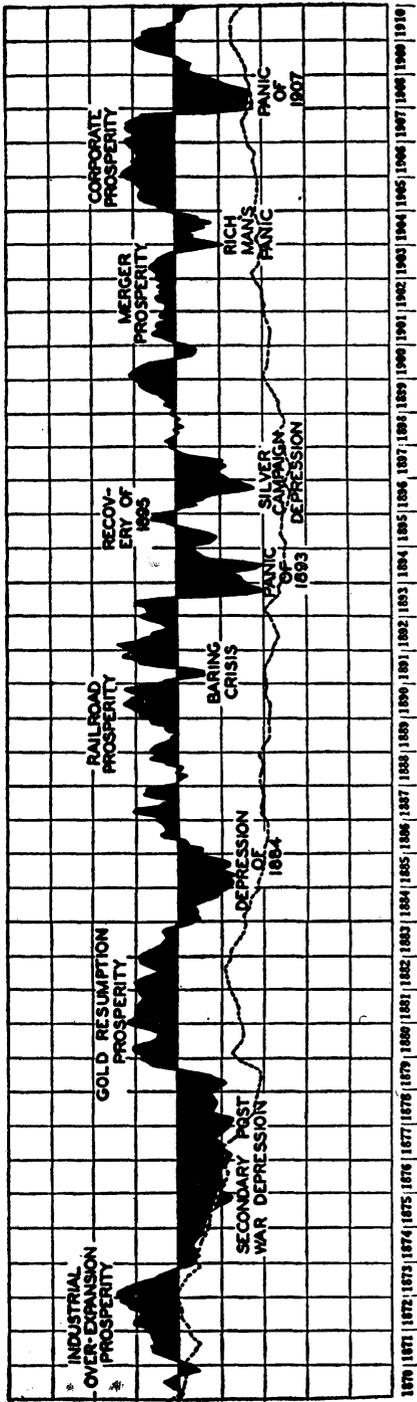


FIG. 27-1 A



Courtesy Leonard P. Ayres and The Cleveland Trust Co.

FIG. 27-1 B

assumed to be constantly in the process of disappearing. The concept of "full employment" with which we shall be concerned throughout the rest of this book also recognizes the inevitability of some seasonal and frictional unemployment. There have been extended periods in the past, however, during which all of the unemployment could not be explained as simply "frictional." The number of unemployed workers and the duration of their unemployment were both on such a scale as to preclude a "frictional" explanation. This type of large-scale unemployment has been associated with the depression phase of what has come to be known as the business cycle.

**Cycles in the United States.** The term "business cycle" is used to describe alternations of good and bad times. These alternations have characterized the performance of private enterprise economies throughout the period for which we have adequate statistical information. Figure 27-1 shows the record of business activity in the United States since 1790. The following tabulation shows the number of depression months for the period 1819 to 1938. It will be noted that there have been fifteen periods of more or less severe depression in this span of roughly 120 years.

DEPRESSION PERIODS IN THE UNITED STATES, 1819-1938 <sup>1</sup>

1819-21 — 24 months	1890-91 — 9 months
1825-26 — 12 months	1893-97 — 48 months
1833-34 — 9 months	1907-08 — 12 months
1837-43 — 72 months	1913-14 — 20 months
1857-58 — 18 months	1920-21 — 18 months
1866-67 — 18 months	1929-33 — 42 months
1873-78 — 66 months	1937-38 — 10 months
1882-85 — 36 months	

The really severe depressions were those which began in 1837, 1873, 1882, 1893, and 1929; they lasted on the average just over 50 months. The average duration of the other depressions was only 16 months. Even in the so-called good years there were idle plants and idle men.

Later in this chapter and more particularly in the two following ones we shall examine various explanations for this behavior of private enterprise systems. But first we need to have before us a generalized picture of a business cycle.

<sup>1</sup> Harold G. Moulton, *Controlling Factors in Economic Development*, The Brookings Institution, Washington: 1949, p. 40.

### A GENERALIZED PICTURE OF A BUSINESS CYCLE

Following Professor Haberler's terminology in the study which he made for the old League of Nations,<sup>2</sup> we shall describe the cycle as possessing four phases: an expansion phase, an upper turning point, a contraction phase and a lower turning point. Diagrammatically a cycle may be represented as a wavy line such as that shown in Fig. 27-2. The duration of a cycle may be measured from

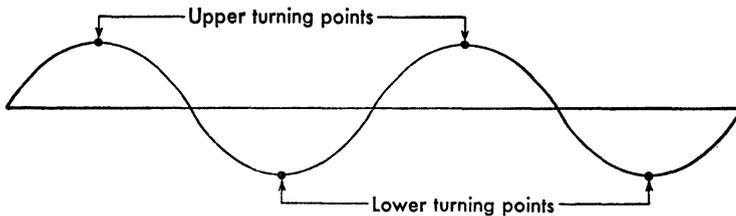


FIG. 27-2

one lower turning point to the next, or from one upper turning point to the next upper turning point. Cycle theory works from general models. It should always be remembered, however, that *each cycle is unique* and that its precise causes can be determined only after the event and by careful historical research. The depression which reached its low point in 1932 and has come to be known as The Great Depression is not to be regarded as typical. We shall deal with the causes of this depression at various points in this book, particularly in Chapter 38. It took many insensate acts of many governments to bring it on and to make it last so long. Only if private enterprise can be shown to be responsible for wars can The Great Depression be laid at its door.<sup>3</sup>

Historical research reveals, nonetheless, the existence of certain features common to all cycles in their various phases. It is from these common features that theorists attempt to derive their explanations of the recurrence of good and bad times, and their proposals for the reduction or elimination of irregularities in employment and production.

<sup>2</sup> Gottfried von Haberler, *Prosperity and Depression, A Theoretical Analysis of Cyclical Movements*, League of Nations, Geneva: 1937. This study was made at the request of the League of Nations. The Columbia University Press has issued the subsequent English editions. It has been translated into many languages. It reviewed the principle cycle theories and developed one which may be regarded as a synthesis of much of the best thinking on the problem up to the date of publication.

<sup>3</sup> This issue is discussed in Chapter 38, pp. 549-550.

**The situation at the lower turning point.** We could begin our account of the characteristic features of the phases of the theorists' model cycle at any point. There are advantages, however, in starting at the point where the forces of contraction have spent themselves, i.e., at the lower turning point.

The situation at the lower turning point is such that any favorable development can very easily bring about a rapid recovery. Commodity prices and factor prices are both low in comparison with those prevailing at the preceding upper turning point, but they have held steady for some time. The managers of business firms realize that costs have reached bottom. There is no further advantage to be gained by waiting for still lower prices. Many firms will have highly liquid assets, and almost all will have at least limited lines of unused credit with their banks. Inventories are low. Some maintenance and replacement expenditures can no longer be put off. Many householders are in the same position. Their incomes have become stabilized, and their stocks of clothing, household effects and furnishings badly need replenishing. The repairs and operating costs of the family car make a new car look like a bargain. Once it is clear that consumer goods prices are not going to fall any further, spending is bound to pick up.

**The acceleration principle.** Thus from the side of firms and householders increased orders start the wheels of industry turning at a quicker pace. At this point a force begins to operate which has come to be known as the *acceleration principle*. This principle states that any change in the demand for consumer goods tends to be magnified as it passes back to firms that supply those directly serving the final consumer.

The principle is based on the known fact that business firms keep their inventories in a rough relationship with their rates of sale. In the example which follows, the normal relationship is taken to be twice the monthly rate of sales.

The assumption here is that the revival begins at the end of the first month. For several months previously, sales have been running at the rate of 1,000 pairs of shoes per month. The Company order for shoes has been 1,000 pairs a month from its wholesale suppliers. During the second month 25 percent more shoes are sold. The end of the month inventory is down to 750. The Company places an order for 1,750 pairs of shoes to bring its inventory up to the higher level appropriate to the improved business situation. The wholesaler thus experiences a 75 percent increase in orders as the result of a 25 percent increase in final consumer buy-

## MONTHLY SHOE ORDERS OF THE STANDARD SHOE COMPANY

Period (mo.) (1)	Monthly Sales (2)	Normal Inventory (3)	End-of Month Inventory (4)	(3) - (4) Required Replacement Orders (5)	Percentage Increase in	
					Sales (6)	Inventory Orders (7)
1st	1,000	2,000	1,000	1,000	---	---
2nd	1,250	2,500	750	1,750	25	75
3rd	1,750	3,500	750	2,750	40	57
4th	2,275	4,500	1,225	3,275	30	19
5th	2,500	5,000	2,000	3,000	10	-8
6th	2,000	4,000	3,000	1,000	-20	-67

ing. It is to be noted that the percentage increase in the orders flowing to wholesalers does not exceed the increase in the retailer's sales to consumers throughout all of the periods under review. The approximately 10 percent increase in sales during the 5th period results in a roughly equivalent decline in orders to wholesalers. The 20 percent decline in the 6th period cuts reorders by two-thirds.

If shoe stores generally are experiencing increased sales comparable to those of the Standard Shoe Company, the magnification of demand at the wholesale level will be tremendous. The wholesaler was selling 1,000,000 pairs of shoes a month in the 1st period on the basis of 2,000,000 inventory. He sells in the second month 1,500,000 shoes and sends back to the shoe factories at the end of the month an order for 2,500,000 shoes, a 66 $\frac{2}{3}$  percent increase. Within a short time, pressure is on the shoe manufacturers. With excess capacity and plenty of unemployed but qualified workers, the factories can respond for a time without placing orders for new machines and increased physical plant. But as their backlogs of unfilled orders pile up, they will place orders with the firms making shoe machinery and with the building construction industry. Again there is a magnification effect. A shoe-machinery firm with its output geared only to replacement orders now finds itself confronted with orders for equipment to expand operations. These new orders may result in a three to fourfold increase in its rate of sales. This new situation will force the manufacturer of shoe machinery to place "rush" orders with the machine tool industry. The building industries will place orders for trucks, dirt-moving apparatus, structural steel and the thousand and one materials that go into

modern factories. Because of the magnification or acceleration effect, even a small increase in the demand for shoes can induce spectacular increases in the demands for shoe machinery, machine tools, and construction equipment.

It is thus apparent that changes in consumer demand get passed back through the long lines of production with increasing violence. When the economy is operating at the time at the full employment level, the perpetual small shifts in consumer demand impose disproportionate adjustments on the suppliers of the consumer goods industries. An economy would have to be extremely flexible to meet these adjustments without any frictional unemployment. This is why most economists hold that a free and undirected economy cannot operate effectively without the flexibility that is provided by a moderate volume of unemployed labor. This is hard on those who are unemployed at a given time, but it appears to be part of the price that a people have to pay if they want progress, and the change that goes with it, and if they want to maintain a private enterprise system. We shall come back to this issue in our discussions of the possibility of full employment in a free society and also in our discussion of the role of social security in such a society.

**The multiplier principle.** Increased spending by business firms, whether for inventory, plant maintenance, or new building, can also start an economy on the expansion phase of the cycle. At the bottom of a depression such additional spending comes from one of two sources: idle funds of individuals or business firms or from bank loans. In either case it represents an increase in the money demand for resources. The owners of these resources will have more money. They may set aside part or use it to repay old debts, but a good part of it will be spent in consumer goods markets.<sup>4</sup>

It may be this new investment spending that started the accelerator working. Or it may have been the accelerator that tripped off the multiplier. In any event the two tend to reinforce one another.

The accelerator is likely to be a bit slow in making its full influence felt because of the abundance of idle plant capacity in the system. It cannot induce investment in additional plant capacity until the physical slack has been taken up. Thereafter it works back into the capital goods sector of the economy and trips the multiplier "trigger," unless some outside development has already started an expansion in that sector. Once these two forces have been released the revival rapidly gathers momentum.

<sup>4</sup> The effect of saving on the multiplier is discussed in the next chapter.

A further factor that propels the economy forward is the abrupt and dramatic shift from losses to profits. This is particularly pronounced in the early stages of the expansion phase. The slack in the system during this early period permits firms to meet increasing orders by buying more supplies, hiring more labor, and bringing idle facilities back into use. Total variable costs rise, but average variable costs may actually fall; in any event, average fixed costs tend to fall rapidly.

Psychological forces now begin to make themselves felt. The pessimism of the contraction period gives way first to a cautious optimism and then to a buoyant confidence. The fever is contagious. More and more businessmen begin to project the growth trends of the recent past into the future and to place orders on that assumption.

**Declining rate of expansion.** The early rate of growth cannot be maintained. The closer the economy approaches to the full employment level the closer does the overall rate of growth come to depend on the rate of increase in the labor force and on the rate of technological progress. The number of new workers entering the labor force depends upon the current death and retirement rates and the birth rate some 18 to 20 years earlier. Technological progress may be fairly rapid throughout most of the recovery phase of the cycle. The historical record shows that a great deal of research is devoted to ways and means of cutting costs during the contraction phase of the cycle. The results of much of this research tend to get incorporated into the economic system during the phase here under consideration. But by the time the top of the cycle has been reached the rate of growth will be disappointingly slow by comparison with the rate during the early phases of the recovery. Given this fact, can a contraction be avoided? This is the problem to which most theories (explanations) of the business cycle address themselves. Here we are merely concerned with a generalized description of the developments during the expansion and contraction phases of the cycle and the situations at the upper and lower turning points.

Before leaving the expansion phase two further observations are called for. The first has to do with changes in the "production-mix" that occur during the recovery; the second with the behavior of the money supply under a fractional reserve banking system.

**Changes in the production-mix.** At any given time the employed resources of an economy are divided between providing goods and services for direct consumption and goods and services for main-

taining and expanding the capital goods which are used for producing consumer goods. Speaking very roughly and very generally we can say that the services of labor and the products of the extractive industries are purchased by either the consumer goods industries or the capital goods industries. (In this connection the activities of the State and its political subdivisions fall into one of the two categories according as the public services benefit consumers directly or provide them with durable things like roads, school houses, public buildings, etc., which will yield their services primarily in the future.)

At the lower turning point the employed resources are concentrated relatively heavily in the consumer sector of the economy. As the recovery proceeds both sectors expand but the expansion is relatively greater in the capital goods sector than in the consumer goods sector. Figure 27-3(a) gives a visual picture of the situation

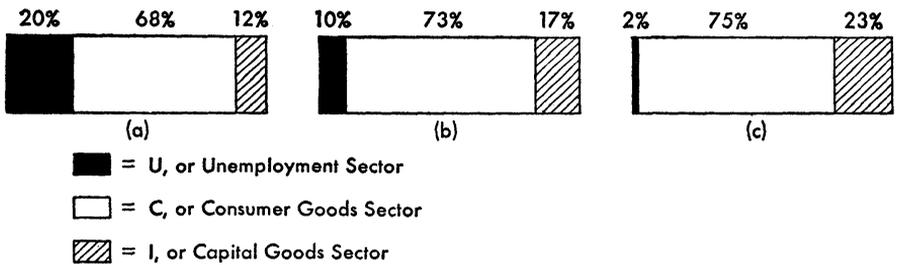


FIG. 27-3

at the lower turning point. The next two diagrams (b and c) show the changes that occur during the recovery period. The significant thing to note is the change in the proportions in which resources are to be found in the idle or U sector, in the consumer goods or C sector, and in the capital goods or I sector.

At the lower turning point 20 percent of the resources (which, for convenience, can be thought of here as persons able and willing to work) are assumed to be unemployed: the remaining 80 percent are employed in the consumer and the capital goods sectors of the economy. The proportions at the low point of the cycle are 20 percent idle, 68 percent serving consumers, and only 12 percent engaged in the maintenance and expansion of the existing equipment. At the midpoint of the expansion the "idle sector" is down by one-half, to 10 percent, the consumer sector accounts for 73 percent, and the capital goods sector 17 percent. At the top of the

cycle the idle sector is down to 2 percent, a frictional minimum, and the consumer sector is up 2 percentage points. The big expansion has occurred in the capital goods sector. It has gained 6 percentage points.

We shall come back to this problem of proportionality or production-mix in our search for the causes of and possible means of controlling the cycle. Our concern here is merely with the fact that the production-mix is changing continuously as the economy moves from under-employment to full employment.

**The behavior of the money supply during expansion.** An essential feature of the expansion is the increase in the volume of money transactions. More goods and services are being produced in exchange for money payments. If the banking system were based on our 100 percent gold reserve model, the increase in the velocity of circulation of money would have to be very great indeed to support the large increase in transactions characteristic of the expansion. In fact, however, the banking systems of all the great trading and industrial countries extend credits on the basis of fractional reserves. It is this fact that is responsible for another characteristic feature of the expansion: it goes forward at slowly rising prices. The  $M'V'$  in the equation of exchange  $MV + M'V' = PT$  increases fast enough to make this possible.

What happens is this: Firms and householders ask for bank loans to finance the replenishment of their stocks. The banks with large excess reserves and hence with low earnings are able and indeed anxious to make advances whenever the security behind the loans seems adequate. These bank loans represent credit creation. As long as most of the banks simultaneously extend credit, there is little or no drain on their legal reserves. All that happens is that their reserves slowly approach the minimum limit set by law or by custom. A further limiting factor under the international gold standard is the loss of gold which occurs if the expansion of credit raises the price level above the levels prevailing abroad.

We shall return to this aspect of the problem later. All that concerns us here is the fact that under fractional reserve banking a recovery can go forward for some time with slowly rising prices. The competition of idle resources prevents these price rises from getting passed on in the form of higher factoral rewards, i.e., higher costs. Hence rising money demands get reflected in rapidly widening profit margins, and profit margins provide the single most important signal for business managers.

So much for the expansion phase of the cycle. It must come to

an end when the economy reaches the full employment level. Will this prove to be a plateau or merely a turning point? Historically it has always proved to be a turning point. Our purpose here is to identify the forces at play that will tend to cause a recession.

**The situation at the upper turning point.** The situation at the upper turning point is such that any unfavorable development can easily bring about a recession. Commodity prices and factor prices are both high by comparison with those prevailing at the preceding lower turning point. The pool of idle labor has been exhausted. The competition for labor has resulted in wage advances in excess of price advances. Profit margins have been narrowing for some time. If there was considerable installment buying during the early stages of the recovery, repayments may be exceeding new consumer credit creation. The resulting destruction of bank debt reduces the money supply and makes it difficult for firms to meet higher wage demands through higher prices. Increasing competition from abroad similarly operates to hold prices down. Many building projects in the capital goods sector will have been completed and workers will have been laid off. Bank loan rates tend to tighten, and requests for additional credit are subjected to more searching scrutiny. The inevitable slowing down in the rate of increase of consumer demand works back through the system, bringing with it, as we have seen, absolute declines in the replacement orders flowing to many firms. Under the circumstances it would be surprising if some firms did not find themselves in financial difficulties. A bad break anywhere can start a recession.

**The contraction phase.** Once a contraction gets started there are forces within the system which, for a time, drive the economy further and further from the full employment level. The acceleration principle now operates powerfully in reverse. An increasing part of current consumer buying is satisfied by inventory reductions. The rate of inventory liquidation is likely to be increased by two forces. (a) Firms are under pressure from the banks to reduce their loans. Sales from inventory are frequently the only way of doing this. These sales plus the distress sales of firms in bankruptcy cause a sharp fall in prices. (b) Pessimistic price expectations lead thoroughly solvent firms to cut back their inventories in the expectation that they can be replenished later at lower prices. Unemployment grows and this reduces the volume of consumer spending directly and indirectly. The unemployed have less to spend; the incomes of those not yet affected by the recession will buy more goods than before, but the fear that their incomes may be reduced

in turn or cut off entirely leads their recipients to save for this eventuality. The expectation of further price reductions also leads consumers to hold off.

Wages tend to lag behind prices on the downswing. Economists differ as to the effect of general wage reductions. If the cuts lead to the expectation of further cuts, firms may be induced to hold back on repairs and maintenance outlays. Certainly, large construction projects are not likely to be launched as long as there is an expectation of further wage reductions. Firms building later when costs were lower would have a permanent competitive advantage over those who had built too soon. Nonetheless the fact that the real wages of employed workers increase during the contraction puts a further squeeze on the profit margins of firms and may increase the number of firms that are forced to discontinue production entirely because of their inability to recover their average variable costs.

But our account of a typical business cycle, while desperately abbreviated, is nonetheless sufficient to show that there are forces at work in modern economic systems which tend to drive them toward the full employment level, once a recovery gets started, and away from that level once a contraction gets started. Economic theories of the business cycle are particularly concerned with identifying the forces that operate at the upper and lower turning points of the cycle and the measures that might eliminate or at least dampen down the amplitude of the fluctuations in business activity.

We shall describe in the next chapter the theory developed by the late John Maynard (Lord) Keynes which undertakes to show how the State, operating within the framework of private property and private enterprise, can eliminate the business cycle. In the following chapter we shall describe another theory which holds that the business cycle is the result of structural maladjustments which develop during the expansion phase of a cycle.

Both theories draw upon the many single or dominant cause explanations of the cycle which have been advanced by students of the business cycle. We shall conclude this chapter by a brief listing of these "single cause" explanations of the cycle.

### A ROSTER OF BUSINESS CYCLE EXPLANATIONS <sup>5</sup>

Actually it is an exaggeration to say that any theory of the business cycle is literally a single cause theory. But most of them do have a preferred or dominant cause. Before listing these dominant

<sup>5</sup> Moulton, *Controlling Factors*, pp. 42-53.

cause explanations it is well to remind the reader that any theory has to show why the dominant force fails to set in motion compensating adjustments sufficient to keep the economy operating at the full employment level.

**Jevon's sun-spot theory.** The great English economist Jevons (1835-1883), who shares with the Austrian Boehm-Bawerk the honor of developing the concept of marginal utility, suggested that the business cycle might be due to cyclical fluctuations in crop yields as a result of weather changes. The weather changes, in their turn, might be due to the periodic appearance of sun spots. This explanation has few if any followers today.

**Psychological oscillations.** All students of the business cycle have noted that the climate of opinion changes with the phases of the cycle and tends to reinforce the up- and the downswings of the cycle. Extremists say that the cycle is the product of a state of mind and that it is the fear of depression that begets depression. The cure is exhortation.

**Monetary explanations.** According to another school of thought the root cause of business fluctuations is to be found in the modern fractional reserve banking system. Under this system, it is held, banks are forced by inter-bank competition to manufacture excessive credit when there is need for credit restrictions, and to destroy bank credit when credit should be extended liberally.

The historical record shows that the contraction phase of the cycle is always accompanied by falling prices. Are falling prices the result of the contraction or the cause? If they are the cause, then the cure is price level stabilization. The proposal for a 100 percent legal tender reserve system (Model No. 4 in Chapter 23) is based on this assumption. The advocates of a 100 percent gold reserve banking system, on the other hand, have no objections to slowly falling prices in a technologically progressive economy, but grave political objections to entrusting to government the delicate task of injecting and withdrawing money from the monetary circuit in response to the needs of business. What is harmful, they say, is the collapse of prices in the early stages of the downswing. They attribute this collapse to the fact that the expansion was financed in part by "forced savings" provided by the banking system. Deprive the banks of this power and business oscillations will lose their violence.

**Price rigidities.** According to another school of thought the failure of an economy to adjust to constant changes in supply and demand characteristic of a free economy is due to the fact that some prices

are very flexible while others are very inflexible. Unemployment necessarily emerges in the sectors where prices are rigid. Business cycle control should be directed at the elimination of the monopoly controls which make price rigidities possible.

**Overproduction.** Economic theory makes it clear that there can be no such thing as general overproduction in a world in which human wants can never be completely satisfied. Overproduction explanations thus really turn out to be a variant of the underconsumption theory to be examined next, or a "malproduction" explanation, too much production in some lines and not enough in others. This malproduction may be due to speculative excesses, or to the bunching of innovations in some sector (railroad building in one period; automobile production in another) leading to overexpansion, followed by losses and a release of resources at a rate that exceeds the capacity of other sectors to absorb them.

**Underconsumption.** All underconsumption theories allege that market forces either fail to generate sufficient purchasing power or else distribute it in such fashion that consumers cannot take off the market all the goods which can be produced at the full employment level. The politically most influential underconsumption theory is associated with the name of Karl Marx. He was one of the first writers to stress the periodicity or cyclical character of production under capitalism. He attributed this periodicity, as well as wars and practically all other social ills, to the fact that competition permitted the businessman to pay the worker only a living wage for his services despite the fact that the worker regularly produced more than his subsistence. The difference, which he called "surplus value," went to the businessman as profits. The system tended to produce more than could be consumed. Consequently profits periodically collapsed, unemployment ensued, and a large part of the value of the property accumulations of the exploiting capitalists was destroyed. The remedy was to pay the worker the full value of his product. This could not be done as long as the businessman owned the instruments of production. Therefore the instruments of production should be socially owned.

Many economists who accept as desirable the institution of private property and private enterprise see in the tendency of wages to lag behind prices in the expansion phase of the cycle a partial reason for the violence of the upswing and the inevitability of the ensuing contraction. They hold that there is not sufficient consumer spending power in the system to sustain the economy at the full employment level.

Another variant of the underconsumption explanation links depressions to the extremely unequal distribution of personal incomes that capitalism tends to create. The well-to-do tend to save more than business firms can profitably use. The excess of savings reduces the effective supply of money, causes prices to fall, and forces firms to contract employment.

**Innovations.** Another explanation of the cycle is based on the observable fact that innovations—the introduction of new production techniques, new goods and services, etc.—are not distributed evenly over time, but rather come in “bunches.” This explanation is closely associated with the name of Joseph A. Schumpeter, one of the most distinguished economists of this century.<sup>6</sup>

To innovate is not the same as to invent. An innovation is a first actual application of an invention to the processes of production. It is a new arrangement of the factors of production in a given firm, conceived by the inventor but put to use by the entrepreneur in the expectation of a higher net return to the firm. The inventor and the innovator (the entrepreneur) may be one and the same person, but this is usually not the case.

For various reasons, innovations tend to be launched rather than distributed evenly over time. The appearance of a number of significant innovations over a short period of time imparts an upward momentum to the economy, i.e., produces the prosperity phase of the cycle. The prosperity continues over the period that the innovations are being introduced; this period will be marked by a high level of investment spending by firms. Once the gestation period of the innovations is at an end, once the stream of consumer goods is rapidly enlarged by firms employing the new techniques, the wave of innovations has spent itself, investment spending drops sharply, and the economy moves into the contraction phase of the cycle. Eventually the stage is again set for a new wave of innovations and the process starts over again.

This so-called “single cause” explanation actually makes use of various elements that have been identified as the prime movers in other single cause explanations. For example, the wave of innovations on the upswing must somehow be financed, and Schumpeter assumes that some of this financing will come from money newly-created by banks operating under a fractional reserve banking system. This elasticity of the money supply under fractional reserve banking has been identified earlier as one of the single cause ex-

<sup>6</sup> Joseph A. Schumpeter, *Business Cycles*, McGraw-Hill Book Co., Inc., New York: 1939.

planations. Also, to explain the appearance of large-scale unemployment during the contraction phase, this theory relies in part on the observed sluggishness of wages and other costs in the face of sharp declines in the money demand for goods. This sluggishness of wages and other costs has also been singled out by others as *the* cause of unemployment.

In brief, this theory states that, given such conditions as a fractional reserve banking system and a sticky cost structure, progress must be a process of three steps forward and two backward; the three steps forward represent prosperity, the two steps backward represent depression. Schumpeter draws the conclusion that absolute stability in economic life can be obtained only at the price of stopping progress. He argues that to eliminate the conditions such as fractional reserve banking that give progress its three-forward-two-backward nature would be to eliminate progress as well. Society is confronted with a choice: Progress or stability. It can't have both.

It is generally recognized at the present time that no one-cause explanation of business cycles is adequate to explain any of the cycles for which we have detailed records and that any promising program for controlling the cycle should take account of the fact that each future cycle will have certain unique features which will call for special treatment. Theories can be helpful to us in our search for these special features, but they can never replace good judgment.

The theories to be examined in more detail in the next two chapters are multiple-cause theories. The first, however, emphasizes inadequate demand; the second structural disequilibrium.

### Questions:

1. (a) Distinguish between voluntary and involuntary unemployment.  
(b) Distinguish among frictional, seasonal and cyclical unemployment.
2. Describe the role of (a) the Acceleration Principle and (b) the Multiplier Principle in both the expansion and contraction phases of the business cycle.
3. Describe the changes in the production-mix that take place during the course of the business cycle and identify (a) the elements in the situation at the upper turning point that are conducive to a contraction and (b) the elements in the situation at the lower turning point that are favorable to a recovery.

4. (a) Why are rising money incomes and, hence, rising demands for goods much less likely to cause price increases in the early stages of a recovery than at the upper turning point?  
(b) If rapid price rises do occur in the early stages what conditions are presumably present?
5. "Given a fixed quantity of money, the expansion phase of the cycle would be marked by gradually falling prices." Discuss.
6. "The fully employed worker is usually better off during the downswing than the upswing of a cycle." Explain and discuss.
7. List and describe briefly each of the single-cause explanations of the business cycle. Which of these do you think is most consistent with the description of the business cycle presented in the first part of the chapter? Why? Are there any happenings in the business cycle which your "favorite" explanation fails to explain?

## *The Theory of Effective Demand*

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ONE consequence of The Great Depression of the 1930s was to raise full employment to pre-eminent position among the economic goals of the industrialized countries of the world. A second consequence was a rather general loss of faith in the ability of a private enterprise system to sustain itself at the full employment level. A third consequence followed naturally from the first two: a tendency for people to look to *government* as the only agency strong enough to counteract the apparently inherent instability of private enterprise.

**The origins of the theory.** As noted before, and as will be pointed out in more detail in Chapter 38, governments did intervene in a great variety of ways in attempts to pull their countries out of The Great Depression. Most of these interventions were instinctive reactions to popular pressure for the government to “do something about it.” They were not based on any consistent theoretical explanation of why the system was unstable, of why the government had to intervene, or of the forms that the intervention should take.

The usual explanation which traditional economic theory had to offer was that men were unemployed because they were asking too much for their services. It followed that the proper policy of government was to do nothing that would interfere with the competitive lowering of wages needed to induce employers to rehire the unemployed workers. Whether this was or was not a sound analysis of the problem was of little importance; the “do nothing” policy which it implied was politically impractical. Governments threw away the books and struck out, more or less blindly, to “do something about it.”

In 1936 a book appeared which had an almost instantaneous success. It met the needs and the mood of the moment. It offered an

internally consistent explanation of the instability of private enterprise systems. It assigned to government a major responsibility for correcting this instability, thereby providing an *ex post facto* justification for many of the actions already taken by governments, including various actions launched in the interests of social reform rather than economic stability as such. Finally it proclaimed that the purpose of its prescriptions was to save private capitalism.

Stripped of all its qualifications, the central thesis of the book was that at any given time there is some level of spending that will provide useful and remunerative employment to all able and willing workers, and that it is the responsibility of government, through its power to tax and to spend, to see to it that this level of spending is maintained. Marx had declared that the maintenance of full employment was only possible through a revolutionary and probably violent transformation of the organization of the economy. The new prophet declared that everything the reformers had dreamed of could be accomplished within the existing institutional framework.

It is not surprising that the book was well received in policy making circles. Nor is it surprising that many economists found it a blessed "middle ground" which permitted them to escape from the dilemma of offering a choice of two politically unpalatable policies—a "do nothing" policy or a scrapping of the private enterprise system.

The book which created all this furor carried the ambitious title, *The General Theory of Employment, Interest and Money*.<sup>1</sup> It was written by an English economist, John Maynard Keynes.

John Maynard Keynes (1883-1946) first attracted public attention with his brilliant indictment of the Versailles Peace Treaty in a small book entitled *The Economic Consequences of the Peace* (1919). For years Keynes was a Reader in Economics at Cambridge University, editor of the *British Economic Journal*, and an eloquent exponent of the neo-classical theories of the great Professor Alfred Marshall. During the 1920s, and largely as a result of Britain's failure to share in the general recovery, Keynes came to the conclusion that a new approach to the problem of employment was needed, and that traditional theory stood in the way. The final outcome of his thinking on this issue is the book here under discussion. Regardless of its ultimate place in the history of economic thought, its influence on contemporary events has been enormous. Many thinkers have contributed bits to the new theory, but Keynes' contribu-

<sup>1</sup> J. M. Keynes, *The General Theory of Employment, Interest and Money*, Harcourt, Brace and Company, New York: 1936.

tion was so decisive that the theory itself is usually referred to as the Keynesian theory, rather than the theory of effective demand.

### WHAT IS MEANT BY "KEYNESIAN ECONOMICS"?

Few treatises on economics have ever aroused more interest and controversy among economists and noneconomists than *The General Theory*. Some have regarded Keynes as the New Prophet; others have regarded him as the old Mercantilist devil in disguise. As economists, we are interested only in what he may have contributed to our understanding of economic life and hence to our ability to shape it to the goals of the individuals in the economy.

For this reason, it is important to distinguish among the following four aspects of so-called Keynesian economics: (1) Keynesian goals, (2) Keynesian language, (3) Keynesian analysis, and (4) Keynesian policy. Almost all present-day economists, including those who reject Keynesian goals and policies, find parts of the Keynesian language and analysis useful. It is also important to recognize that there are many varieties of Keynesians and that almost all economists are and were Keynesians to some degree long before the appearance of *The General Theory*.

**Keynesian goals.** A distinguishing feature of Keynesian economics is the great emphasis it places on full employment as an economic goal. In part this is a reflection of the general depression-born emphasis on the goal of full employment. This emphasis becomes important only when specific policy action is being discussed. Thus, if a given action can be shown to serve the goal of full employment at the expense of other goals, such as international specialization or the best use of employed resources, the Keynesian economist is more likely than the non-Keynesian economist to approve of the action.

One other value judgment is characteristic of most Keynesian economists. Given a choice between two techniques for providing full employment, one of which places the adjustment costs largely on the wage- and profit-taking groups and the other of which places the adjustment costs largely on the rentier or interest-taking groups, the Keynesian would normally prefer that the costs rest on the rentier groups.

As Keynes himself said, in referring to his low-interest rate policy,

"Now, though this state of affairs would be quite compatible with some measure of individualism, yet it would mean the euthanasia of the rentier, and, consequently, the euthanasia of the cumulative oppressive power of the capitalist to exploit the scarcity-value of capital." (pp. 375-6)

**Keynesian language.** Keynes and his followers have introduced or popularized a number of words and phrases which have become a standard part of the vocabulary of economics. Some of the most important of these are listed and defined below. The definitions are rough and approximate rather than precise.

*Effective or aggregate demand.* Effective demand is the total amount of money spent on goods and services in a given country over a given period of time, usually one year. The four sources of effective demand or total spending are consumers, investors, foreign buyers, and the various units of government.

*The consumption function.* The consumption function is a schedule of the numbers of dollars that would be spent for consumer goods out of incomes of various sizes over a given period of time. It may be used to describe the consumer-spending-income pattern of a single consumer, of a group of consumers, or of all consumers in an economy.

*The average propensity to consume.* The average propensity to consume is the ratio between consumer spending and consumer disposable income. It is a measure of the fraction of the average dollar that is spent on consumer goods.

*The marginal propensity to consume.* The marginal propensity to consume is a ratio between an increase in spending and the increase in income with which it is associated. It is a measure of the fraction of an extra dollar of income that is spent on consumer goods.

*The propensity to save.* By definition, saving is that part of a consumer's disposable income that is not spent on consumer goods. It follows that the average propensity to save is equal to one minus the average propensity to consume. Thus if a consumer spends 0.8 of his income, he must be saving 0.2 of his income. The marginal propensity to save is equal to one minus the marginal propensity to consume.

*The multiplier.* As defined in the preceding chapter, the multiplier is the ratio between an increase in income and the increase in investment spending which generated that increase in income. Thus if a one-dollar increase in investment spending generates a five-dollar increase in income, the value of the multiplier is five.

It can be shown that the value of the multiplier is determined by the marginal propensity to save of the individuals through whose hands the dollar passes.

The multiplier can be derived by dividing the dollar by the mar-

ginal propensity to save. This means that the higher the marginal propensity to save, the lower the multiplier.

*The accelerator.*<sup>2</sup> The accelerator is a ratio between a percentage increase in investment spending and the percentage increase in consumer spending which generated the increase in investment spending. Thus, if a 10% increase in consumer spending were to generate a 50% increase in investment spending, the value of the accelerator would be 5.

*Marginal efficiency of capital.* The marginal efficiency of capital is the expected rate of return on capital goods. It is approximately the same as the marginal productivity of capital. (See the chapter on Interest for the significance of the marginal productivity of capital.)

*Liquidity preference.* Liquidity preference refers to the attitude of an individual toward holding his assets in liquid or in nonliquid form. If he wishes to hold them in the most liquid form of all, he will hold them in the form of money—either currency or a bank deposit. Less liquid forms would be government or corporation bonds, stocks, real estate, etc. These are less liquid than money because they are not generally accepted in direct exchange for goods and services.

The technical definition of liquidity preference is that it is a schedule showing the numbers of dollars an individual would wish to hold in the form of cash at a series of interest rates at a given moment of time.

The motives that lead an individual to wish to hold a certain fraction of his resources in the form of cash are (a) the *transactions* motive, or the need for a certain amount of cash to handle day-to-day transactions; (b) the *precautionary* motive, or the desire to have a certain amount of cash available in case of unexpected needs for cash; and (c) the *speculative* motive, or the desire to profit through changes in the value of money.

### KEYNESIAN ANALYSIS: THE ASSUMPTIONS

Keynesian analysis of fluctuations in production and employment is centered on fluctuations in effective demand. This analysis, like that of pure competition, involves a number of assumptions. We shall identify two of the more important assumptions of Keynesian analysis in this section and two more in the next section.

<sup>2</sup> This is a pre-Keynesian concept which Keynes' followers have borrowed from Professor Clark of Columbia University. J. M. Clark, "Business Acceleration and the Law of Demand," *Jour. of Pol. Econ.*, XXV (1917), 217-235.

**Assumption No. 1.** As noted before, the central thesis of Keynesian analysis is that increases in effective demand increase employment, whereas decreases in effective demand decrease employment. This thesis is modified to recognize the obvious fact that, once full employment is attained, further increases in effective demand bring increases in prices rather than in employment.

This analysis of the effect of changes in effective demand on production and employment involves a very important assumption. The assumption is that certain key prices, particularly the price of labor, do not vary in proportion to changes in effective demand. (This is assumption No. 1.) Otherwise, changes in effective demand would work themselves out entirely through price changes, leaving production and employment unaffected.

The importance of this assumption can be illustrated as follows: Suppose an individual is spending \$100 a week on items costing an average of \$1.00 each. He would be buying 100 units a week and providing employment to the number of workers needed to produce 100 units. Now let his spending (effective demand) drop to \$90 a week. If the average price were to drop to 0.90, he could still buy 100 units. If wages and other cost elements were to drop in the same proportion, the suppliers could continue to employ the original number of workers and the drop in spending would have produced no change in production and employment.

On the other hand, if the price were to remain unchanged at \$1.00 or if wages and other cost elements were to remain unchanged, or if prices and costs were to fall but less than in proportion to the 10 percent fall in his spending, there would be a drop in production and employment.

In other words, to argue that fluctuations in effective demand produce changes in production and employment, it is necessary to assume that certain prices and costs are "sticky," i.e., that they are not sufficiently responsive to changes in demand. This assumption is largely valid for many price and cost elements, particularly wages, in modern industrial economies, including our own. However, it raises this question: Is the cause of the unemployment the drop in effective demand or the "stickiness" of wages and prices? The policy implications of this question will be considered in a later section.

**Savings-investment and assumption No. 2.** Keynesian analysis is concerned not only with *the effects* of fluctuations in effective demand but also with *the causes* of those fluctuations. Briefly stated, it argues that changes in effective demand are produced largely by

changes in the relationship between savings and investment. When savings decisions call for *more* dollars to be saved than investment decisions would provide outlets for, effective demand (and, hence, production and employment) declines. Conversely, when savings decisions call for *fewer* dollars to be saved than investment decisions would provide outlet for, effective demand (and, hence, production and employment) increases.

For these results to follow, it is necessary to assume that the interest rate does not perform one of the important functions ascribed to it in our chapter on interest. That function was to equate the rate of savings to the rate of investment.

It was held there that a fall in the demand for savings would produce a fall in the rate of interest, a rise in consumer spending, and a reduction in the supply of loanable funds. A new equilibrium rate of interest would quickly emerge which would equate the amount of savings offered and the amount demanded. The fall in the attractiveness of investment spending would result in a decrease in investment spending, compensated for by an increase in consumer spending, i.e., in a change *in the direction of spending but not in its total amount*. This change in the direction of spending would probably result in some frictional unemployment but, given price and wage flexibilities, it would be of short duration.

It is important that we note here one of the further limiting assumptions of the analysis in Chapter 14. The stock of money was assumed to be fixed. There could be no credit creation by the government or by the banking system. Hence the number of dollars invested could never exceed the number of dollars saved. In all modern economies with their fractional reserve banking systems the quantity of money can and does change; hence it is possible in the real world for the number of dollars invested to exceed the number of dollars voluntarily saved and made available for investment purposes. This is quite clear. But is it possible for the number of dollars invested to *fall short* of the number of dollars saved, that is, for large-scale "hoarding" of saved dollars to take place?

The analysis of Chapter 14 would indicate that changes in the interest rate and the resulting changes in investment and consumer spending make such a result improbable and, in any event, unimportant. Keynesian economics argues that this result is not only probable but fraught with far-reaching consequences.

To begin with, it is argued that the interest rate cannot move over a sufficient range, and with the required speed, to offset the violent fluctuations in the marginal efficiency of capital (and,

hence, in the level of investment spending) that are characteristic of a modern economy. In the words of Keynes,

“With markets organized and influenced as they are at present, the market estimation of the marginal efficiency of capital may suffer such enormously wide fluctuations that it cannot be sufficiently offset by corresponding fluctuations in the rate of interest.” (p. 320)

In the second place, Keynesian economics argues that the interest rate cannot prevent savings from outrunning investment under various circumstances because the interest rate is not determined by the interaction of saving and investment decisions, as the earlier analysis would imply. Rather, the rate of interest is said to be determined by the interaction of the demand for money to be held in the form of cash (liquidity preference) and the supply of money. From Keynes again,

“Thus the rate of interest at any time, being the reward for parting with liquidity, is a measure of the unwillingness of those who possess money to part with their liquid control of it. The rate of interest is not the ‘price’ which brings into equilibrium the demand for resources to invest with the readiness to abstain from present consumption. It is the ‘price’ which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash.” (p. 167)

This is the same as saying that decisions to save and decisions to invest are largely independent of each other. The quantity of savings, according to Keynesian economics, is determined not by the interest rate but by the level of income and the propensity to consume. The interest rate determines the *form* in which savings will be held and not the level of savings itself. Interest is the reward for parting with liquidity and not the reward for abstaining from consumption.

From this it follows that savings can exceed investment and that this will result in a fall in effective demand.

In short, traditional theory argued that the interest rate, if free to move, would always equate the rate of savings to the rate of investment. It followed from this that large-scale hoarding of money was impossible. Keynesian theory argues that the interest rate does not equate the rate of savings to the rate of investment, that the rate of saving can exceed or fall short of the rate of investment, and that, in fact, changes in effective demand resulting from just such relationships between savings and investment are largely responsible for the business cycle.

## KEYNESIAN ANALYSIS: THE CYCLE

As indicated above, the Keynesian analysis of the cycle is centered on rhythmic changes in the relationship between savings and investment. The analysis is based on the *observable fact* that investment spending fluctuates widely over time. It is also based on the *assumption* (which will be identified as *assumption No. 3*) that saving is a relatively stable function of income over time.<sup>3</sup> In other words, while the saving propensity is seen as changing but slowly, the extreme fluctuations in investment spending produce first expansionist then contractionist forces in the economy. In the words of Keynes again,

“The Trade Cycle is best regarded, I think, as being occasioned by a cyclical change in the marginal efficiency of capital, though complicated and often aggravated by associated changes in the other significant short-period variables of the economic system.” (p. 313)

We turn now to the way in which this analysis is used to explain the various phases of the business cycle.

**The expansion phase.** Almost all economists are agreed on the sequence of events during the expansion phase of the cycle. We shall not bother to repeat the sequence here. Rather, we shall pick up the description of the sequence as the economy nears the full employment level. Wages and other cost elements begin to “catch up” with prices. This comes about in part because the expansion of production can no longer proceed by re-employing idle men and resources; thus there is considerable upward pressure on wage rates. Another very important reason is that consumer spending has not kept pace with increases in income. In other words, *increased saving* is slowing down the rate of increase in consumer spending.

Because of these factors and because of the increased supply of capital goods as the economy nears the full employment level, the actual return on capital goods is rising slowly or not at all or even falling off slightly.

**The crisis or upper turning point.** According to Keynes, the crisis is marked by a sudden collapse of confidence, by a violent fall in the marginal efficiency of capital. (It should be remembered that

<sup>3</sup> Recent statistical studies have raised serious doubts about even the short-run stability of the consumption function. These studies have found that the relationship between the percentage of income saved and the size of the income is subject to significant changes over relatively short periods of time. While this does not negate the whole Keynesian analysis, it certainly makes less reliable predictions of the course of total spending based on the assumption of a stable consumption function.

the marginal efficiency of capital is the investor's *subjective* evaluation of *future* returns on capital goods, and not the *objective* evaluation of *present* returns on capital goods.)

The actual returns on investment have fallen short of the enthusiastic expectations of the expansion phase. The reaction is a rapid reversal of investor psychology. Wild optimism is replaced by deep pessimism and the marginal efficiency of capital collapses, and with it, of course, the rate of investment spending. This reaction may be "triggered" by a tightening of bank loans or by the failure of one or more large enterprises, or some similar event, but the stage was set by the relative oversaving in the final stages of expansion.

The interest rate, instead of dropping so as to induce more investment, actually rises. The demand for cash increases dramatically as individuals and firms try to escape from the losses certain to come to those who hold on to goods. At the same time, the amount of money in the system is decreasing as banks contract loans and hence demand deposits. These two factors combine to drive up the interest rate.

**The contraction phase.** For some time after the crisis, firms continue to sell largely out of inventories. Eventually, however, inventories are reduced to levels consistent with the lower rates of sales and firms begin to produce again, but on a limited scale. One important factor limiting the scale of operations is that wages and other cost elements come down slowly and profit margins are narrow or nonexistent. (As we shall see, this does not lead the Keynesians to recommend drastic wage cuts as a cure for the depression.)

As incomes fall, savings are reduced even more rapidly. Eventually savings are reduced to the level where they are absorbed by the limited investment activity. However, consumer and investment spending together do not provide a level of effective demand adequate to provide employment to all workers; large-scale unemployment exists and can persist.

The rate of interest falls as demands for cash abate and as the reduction in bank deposits slows down. However, and this is an important part of Keynesian economics, it is possible that the rate of interest will not fall to a level sufficient to induce an increase in investment spending, an increase which might start the economy rolling again. The factor which prevents the interest rate from falling is the preference for liquidity. Keynesian economics assumes (and this will be identified as *assumption No. 4*) that below some interest rate (say, 2%), individuals and firms will be unwilling to

part with liquidity, i.e., they will hold their savings in the form of cash or bank deposits rather than offer them on the loanable funds market. This places a "floor" under the interest rate.

However, there is no floor under the marginal efficiency of capital. Even a 2% interest rate may be greater than the expected return on many investments. Thus investment activity remains at a low level and with it, the level of effective demand. The economy may reach an "underemployment equilibrium," i.e., a position of equilibrium characterized by chronic unemployment. In other words, there may be no inevitable "lower turning point." The economy may bump along on the bottom with no self-correcting tendencies until some outside force or *the government* intervenes to start it moving upward again.

**The mature economy thesis.** Some *but not all* Keynesian economists have argued that the possibility of chronic unemployment is enhanced by the increased maturity of the economies of the Western nations. They hold that we were saved from chronic unemployment in the nineteenth century by the inherent dynamism of a rapidly growing economy.

Three dynamic forces, so the argument goes, were at work to provide investment outlets for the increasing savings in the economy. They were the westward push, the rapid rate of growth of population, and a series of revolutionary technological developments. It is argued that these forces are now either weakened or eliminated, and new investment outlets are less likely to appear at the fortuitous moment to jar the economy out of an underemployment equilibrium. We shall have more to say of this pessimistic forecast in a later chapter.

### KEYNESIAN ANALYSIS AND THE NATIONAL INCOME ACCOUNTS

The magnitudes of Keynesian analysis are also the magnitudes of national income accounting which were described briefly in Chapter 2 and are developed more fully in the Appendix. Disposable income, consumer spending, savings, investment spending, foreign purchases and sales, government expenditures and revenues—these terms all have rough equivalents in the national income accounts, as those accounts are developed by the Department of Commerce in this country, and by similar agencies in other countries. It is not surprising that these accounts have proved useful to all economists, but particularly to those who employ the Keynesian analysis.

These data provide the empirical material for testing the useful-

ness of the Keynesian analysis in *ex post* explanations of cyclical movements. They provide, as well, estimated values for many of the variables and constants in Keynesian analysis. Finally, they seem to open up the possibility of predicting the future course of total spending (and hence employment, under the Keynesian analysis). This in turn would permit governments to take the kinds of action the Keynesians would recommend to prevent the level of effective demand from falling below the full employment level.

Some economists are sufficiently enthusiastic about the possibility of using the national income accounts for cycle control that they hail this development as the final step in transforming economics into a true science. Others in both the Keynesian and non-Keynesian ranks are more dubious about the possible uses of national income accounts for cycle control purposes. The minimum margin of error is large. Corrections continue for several years before the final figures for the gross national output and its components are regarded as anything more than provisional.

This is an important controversy; it relates not just to the question of whether the Keynesian analysis is a proper base for policy decisions but also to the question of whether the national income accounts are sufficiently reliable to be used in developing important public policy. As a matter of fact, the first draft of the Full Employment Act of 1946 called for the government to take strong decisive action whenever the national income accounts revealed the existence of or the prospective existence of certain relationships that promised to reduce the gross national product below the level required for full employment.

### KEYNESIAN POLICY

We turn now to the question asked earlier. "Is unemployment caused by a fall in effective demand or by the failure of prices, wages, and other cost elements to adjust to the fall in effective demand?" The Keynesian answer is that, for policy-making purposes, the fall in effective demand must be treated as the cause. That is, they largely reject a policy program based on "sticky" wages and costs as the causes of persistent and large-scale unemployment. They argue that it is not politically or economically feasible to secure the degree of wage and other cost flexibilities needed to prevent unemployment. Even more important, most Keynesians argue that it would not be desirable to do so if it were possible, because wage cuts would create unfavorable expectations. Consumer spending and investment spending would be cut back in

anticipation of further wage cuts. This behavior would intensify the downward movement of effective demand and make the situation worse rather than better.

Keynesian policy is built around the idea of preventing fluctuations in effective demand below the full employment level. Moreover, the Keynesian analysis of the fluctuations in demand leads to the conclusion that the government must play an important and positive role in this task.

Beyond this there is considerable disagreement among economists who use the Keynesian analysis as to precisely what the government should do. We shall identify here some of the major lines of policy action that are generally accepted as part of Keynesian economics. The reader should keep in mind that various men would place different emphasis on different lines of action and that there is no such thing as Keynesian Policy in the singular sense.

It is convenient to classify the policies according to the element in total spending to which they are most closely related. Each policy is directed to attaining and maintaining a level of effective demand adequate to bring full employment.

**Consumer spending.** Consumer spending is said to be determined by the amount of disposable income flowing to consumers and by the average propensity to consume. It follows that an increase in one or both of these determinants would lead to an increase in consumer spending. How can the government bring this about?

One proposal is that disposable income be increased by the simple device of lowering tax rates. Another proposal is that a direct supplement to consumer incomes be supplied by the government. Another is that payment rates under the various social security programs be increased so as to place more income in the hands of consumers. These proposals are designed to increase disposable income.

Some of the most controversial Keynesian proposals deal with ways of increasing the average propensity to consumer, particularly the proposal to accomplish this objective by redistributing income from high-income, high-saving groups to low-income, low-saving groups. The redistribution could be effected by a progressive income tax combined with an expanded program of free or below-cost government services for low-income groups. Other ways are frequently proposed by special interest groups, who find in this idea a convenient way to identify what is good for them with what is "good for the economy." Most Keynesians now recognize that a

drastic redistribution of income would be needed to produce even a modest increase in consumer spending. Because of fears that such a redistribution of income might produce a more than proportionate reduction in the willingness to invest, Keynesians increasingly emphasize other avenues to full employment.

**Investment spending.** Investment spending is said to be determined by the schedule of the marginal efficiency of capital and the rate of interest. Because of the "psychological" nature of the marginal efficiency of capital, Keynesians usually propose to work on it indirectly, particularly through increasing consumer spending and thus the demand for goods and services produced by capital goods.

Direct action in this area is usually limited to attempts to control the interest rate. It will be recalled that the interest rate is said to be determined by liquidity preferences and the quantity of money. The quantity of money obviously lends itself very easily to direct control by the government. Thus an important part of Keynesian policy for raising effective demand is a low-interest rate maintained by whatever increases in the quantity of money may be necessary.<sup>4</sup>

**Foreign spending.** Another way of increasing the demand for domestic goods and services is to encourage exports and discourage imports. This suggests tariff increases. Actually governments were trying to increase effective demand for home-produced goods in this and similar ways long before the appearance of *The General Theory*.

Keynesians reject in principle national "beggar-thy-neighbor" policies. Hence, in general, they would prefer to "stay away" from devices that reduce the volume of international trade. Even those who have broken most completely with traditional thinking find it difficult to reject the arguments in favor of free trade. This can lead to some peculiar paradoxes in policy decisions, as will be shown later.

**Government spending.** Almost without exception, Keynesian economists argue that the problem of maintaining effective demand at the full employment level cannot be solved completely by the kinds of action just described; that it will usually be necessary for the government to use its own spending power to fill the last part of the gap between private demand and the necessary level of effective demand.

This use of the government's power to tax (or borrow) and spend

<sup>4</sup> The method of doing this was discussed in Chapter 23, particularly pp. 296 ff.

to maintain a given level of effective demand (as distinguished from its use to discharge the normal functions of government) is usually referred to as *fiscal policy*. Keynesian economists regard this as a two-edged sword. Budget deficits can be used to inject spending power into the system; budget surpluses can be used to withdraw spending power from the system. Fiscal policy is distinguished from *monetary policy*, which is the use, for similar purposes, of the government's power over the quantity of currency in circulation and over the ability and opportunity of banks to create and destroy bank money. Although Keynesians do not reject monetary policy completely (see the section on the interest rate), they hold that monetary policy alone is usually inadequate to the task at hand.

The much-discussed "pump-priming" undertaken by the Roosevelt Administration is an example of fiscal policy used in a deliberate attempt to increase effective demand. The idea was that the government could prime the pump with an increase in its own spending, that this would stimulate private spending, and that soon private spending would attain such volume that government deficit spending could be discontinued and the economy would continue to expand. Although this line of thinking is still advanced by some Keynesian economists, others have abandoned it because of the difficulty of answering this question: If the injection of doses of government deficit spending has a magnified and cumulative effect on effective demand, will not the withdrawal of those supplements to demand have a similar, but negative cumulative effect?

A number of Keynesian economists frankly admit that it may be necessary for the government to operate with a perpetual budget deficit if full employment is to be maintained. The following statement of a leading professional economist is representative of a point of view that was widely held during the 1930s and still enjoys a substantial following.

"There are many who will profoundly dislike and distrust these proposals, especially the proposal for indefinitely continued government deficit spending. Under our present forms of economic and political organization, however, there seem to be no major alternatives. We will not ourselves, in the aggregate, voluntarily spend all of any increases in our current incomes on the current purchase of goods and services, but insist on hoarding a part of each increase. By so doing, we thereby make some measure of subsequent unemployment in private industry inevitable. Yet it is a paramount duty of society as a whole, in a democracy, to furnish reasonable opportunities for employment to every person who

wants to work. It is therefore up to the government to persuade us, coerce us or delude us, as the case may be, into doing for the common welfare and for our own individual good that which we will not voluntarily do ourselves. When undertaken to combat unemployment in private enterprise, a properly planned program of government deficit-spending operations hurts nobody and benefits everybody. None lose, and all gain.”<sup>5</sup>

While this statement is not representative of all Keynesian thinking, it is a reasonably logical extension of Keynesian analysis. However, fiscal policy is often conceived of as involving a balanced budget *over time*. That is, budget deficits to bring full employment will be offset by budget surpluses to prevent inflation once full employment has been achieved. Whatever form it takes, the policy of using budget deficits to increase effective demand when unemployment threatens is a central part of Keynesian policy. Whether the deficit is to be obtained by increasing expenditures while leaving taxes unchanged or by reducing taxes while leaving expenditures unchanged is one of the intra-family disputes still proceeding in the ranks of Keynesian economists.

**Keynesian policy and inflation.** The policies outlined in the preceding discussion were all directed to the problems of combating deflation and unemployment. Does Keynesian policy include prescriptions for inflation as well? Admittedly the policy measures were developed at a time when unemployment was *the* problem. However, most modern Keynesians would argue that their analysis also suggests the proper action to take to combat inflation as well. Specifically, they would recommend budget surpluses as an anti-inflation device. It is interesting to note, however, that rarely do the men who recommend redistribution of income from the rich to the poor as an anti-deflation device follow their logic to the point of recommending redistribution of income from the poor to the rich as an anti-inflation device.<sup>6</sup>

There are some who argue that the proper way to combat inflation is general or selective price controls, rather than induced decreases in effective demand. Their argument is that such induced decreases in effective demand may “get out of hand” and plunge the economy into depression.<sup>7</sup>

<sup>5</sup> J. W. Angell, *Investment and Business Cycles*, McGraw-Hill Book Company, Inc., New York: 1941, p. 289.

<sup>6</sup> If tax rates on large incomes are to be pushed higher every time the economy falters, with no relaxation during the prosperous periods, it can only be a matter of time before taxes destroy the mainspring of the private enterprise system.

<sup>7</sup> See p. 677.

**An appraisal of Keynesian policy.** The set of policies outlined above clearly represent strong medicine. But massive unemployment is a serious problem. It is quite appropriate, therefore, that policy makers should not shrink from strong medicine just because it is strong. However, it is also imperative that they examine the medicine closely to see if it will do what it is supposed to do, and if the after-effects of the medicine will not be worse than the disease.

The experience of the economy in wartime demonstrates that government spending *on a sufficient scale* can eliminate unemployment. The questions then are whether a recovery induced in this way can be sustained without perpetual deficit spending and whether the side-effects of Keynesian policy represent problems less or more serious than unemployment itself.

Some of the issues raised by Keynesian policy are the following: Will a redistribution of income to increase effective demand seriously reduce the incentives to efficient use of resources in the economy? Will continued government deficit spending, and the possible encroachment on private sectors of the economy associated with it, frighten the private investor and thus lead to a decrease in private investment spending? Will a low-interest rate policy implemented by continuing increases in the quantity of money result in a perpetual disequilibrium in the allocation of resources between consumption goods and capital goods? Will the pressures of special interest groups, continued after the attainment of substantially full employment, lead to perpetual inflation? Is planned secular inflation workable if groups are aware that it is planned? Would a continuing use of price controls to combat inflation eventually destroy the market mechanism? Can Keynesian stabilization policies be followed without necessitating a considerable restriction of international trade?

We shall consider a number of these questions in the next chapter and still more in later chapters, particularly those dealing with international economic relations and the concept of planning. In Chapter 45 we shall present and examine a program for maintaining full employment drafted by a group of economists at the request of the Economic and Social Council of the United Nations. The program seems to be a faithful, well-written and logical application of Keynesian policy to the world economic situation as it exists today.

We turn now to the question of whether there are alternative ways of securing greater stability in production and employment,

ways which involve less sacrifice of other goals than may be involved in the Keynesian way. We shall give particular attention to an analysis of the cycle which identifies the cause of the downturn as *overinvestment* rather than *underinvestment*; we shall find that this analysis implies that Keynesian policy would make the situation worse rather than better.

*Questions:*

1. What elements in the Keynesian analysis made it attractive to the governments of industrialized countries in the late 1930s?
2. (a) State the central thesis of Keynesian economics.  
(b) Identify the major premise (assumption) underlying this thesis.  
(c) Does the description of the business cycle in the preceding chapter indicate that this premise is largely valid as a description of behavior in modern economies?
3. Explain (a) the traditional position regarding the interest rate as an automatic mechanism for equating the rate of saving to the rate of investment, (b) the grounds on which Keynesians reject this equilibrating mechanism, and (c) the role which they assign to the interest rate.
4. Identify the four sources of effective demand and indicate which source is the least stable, i.e., which type of spending is subject to the most violent swings. Indicate how this is related to the Keynesian theory of the business cycle.
5. Identify with some precision the Keynesian analysis of (a) the causes of relative oversaving in the latter stages of the expansion phase and (b) the way in which this oversaving contributes to the downturn.
6. The Keynesian theory of underemployment equilibrium rests on two assumptions, one with respect to the interest rate and one with respect to the opportunities for investment spending. Identify the two assumptions and show why both are necessary to the underemployment-equilibrium thesis.
7. Identify several ways in which each of the four components of total spending might be increased. In each case, indicate whether you believe the policy is or is not consistent with the operating requirements of a private enterprise economy, and why.
8. Identify the way in which Keynesian policy might be used to combat inflation.

## *Alternative Theories*

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TRADITIONAL economic theory long regarded unemployment as due primarily to either the immobility of the unemployed workers or to their unwillingness to work at the wages currently offered. In either case they were “voluntarily” unemployed and the responsibility was on them to make the decisions that would restore them to the ranks of the employed.

Later this position was modified to the extent of recognizing that *violent* swings in the level of spending confront workers (and the economy at large) with adjustment problems of such magnitude that the adjustments are likely to be unnecessarily painful and time-consuming. This led to greater emphasis on control of spending, but the technique of control, in contrast to the Keynesian technique of fiscal manipulation, was to be primarily *monetary control* operating on the quantity of money through the medium of the Central Bank. Thus, for years, business cycle policy discussion centered on such questions as how much and what kinds of power to give to the central bank, and how and when each of the powers should be used. With some modifications and exceptions, modern followers of traditional economic theory still look on improved monetary policy and greater mobility of resources and flexibility of prices and wages as the best ways of moderating business fluctuations.

Beyond this, as in the Keynesian camp, there is considerable disagreement as to the *precise* causative factors in the business cycle and the specific monetary control that should be applied, if any. Of particular interest is the disagreement between those who favor a return to the full gold standard and those who favor the use of a managed currency, either a managed gold standard currency or a managed fiat currency.

### THE GOLD STANDARD AND THE BUSINESS CYCLE

Those who favor a return to the full gold standard insist that measures to prevent violent fluctuations in effective demand must be consistent with the operating rules of that standard.<sup>1</sup> In general they argue that the kind of monetary manipulation which usually follows, once some agency of government is empowered to moderate domestic price fluctuations, results in a frustration of the processes of the gold standard. Both monetary and fiscal policy are regarded as potentially dangerous to the operation of the standard and thus to effective international integration.

The rules of the gold standard were outlined in Chapter 25. They require that the monetary authorities of a country permit an influx of gold arising out of a favorable balance of payments to move prices upward and thus correct the imbalance in trade. In the same way, they require that the monetary authorities permit an outflow of gold arising out of an unfavorable balance of payments to force prices down, again to correct the imbalance in trade. In other words, the trade-balancing mechanism of the gold standard works through changes in domestic price levels. It is argued that these price level movements need not produce unemployment *if* wages and other cost items are flexible. If unemployment does appear, the proper remedy is greater flexibility of wages. Attempts through either fiscal or monetary control to halt the price level movements will prevent the trade-balancing mechanism from working and thus reduce world trade. At the same time, if the gold standard is permitted to operate, it will provide its own corrective to price level movements in either direction, i.e., once prices have moved so as to bring a balancing of payments the gold standard will operate to prevent prices from continuing to fall or rise.

It follows from this that monetary action to prevent gold movements from affecting domestic demand and prices is inconsistent with the operating requirements of the gold standard. This does not imply a complete "do nothing" policy with respect to the unemployment that may be associated with the cyclical changes in demand and prices. Rather it implies that policy should be directed largely to the following two goals: (1) To increase the mobility of

<sup>1</sup> This point of view is expressed most forcefully by the men associated with an organization known as Economists' National Committee on Monetary Policy. Such well-known economists as James Washington Bell, Fred Fairchild, and Walter Spahr are members of this organization and have presented vigorous arguments in support of the views to be summarized in this section.

labor and the flexibility of wages and other cost elements so as to reduce the unemployment arising out of the changes in demand, and (2) to provide for real distress cases arising in the adjustment process without stopping the process itself.

These men hold, and history bears them out, that except in periods of international disintegration, such as have always followed major wars, the fluctuations in prices called for under the gold standard are not extreme, and that a reasonable amount of flexibility in wages and other cost elements is adequate to prevent wide-scale unemployment. They also argue that the adjustments under the gold standard in a period of international disintegration, while disagreeable, are apt to be less painful than those produced by other arrangements.

In brief, these men argue that the economy of any country which participates in international trade is going to receive an occasional (and probably rhythmic) buffeting from the changing winds of that trade; that an economy can ride perpetually on an even keel only if it cuts itself off from all contacts with other economies; that the buffeting is apt to be less painful under the gold standard than under other arrangements; and that there is a strong presumption in favor of the gold standard on other grounds, particularly its demonstrated ability to encourage and promote international specialization. Finally, they see the choice as one between peaceful international integration, achieved at the cost of some instability in domestic economies, and absolute domestic economic stability, achieved at the cost of war-producing international disintegration.

### MANAGED CURRENCY AND THE BUSINESS CYCLE

Another group of economists of general orthodox persuasion reason as follows: If the various shocks to the economic system of a country, such as those coming from gold movements, from the bunching of technological changes, from the operation of the acceleration effect, etc., did not lead to cumulative and violent changes in the level of spending, the economy could probably adjust to those shocks without great difficulty. If such were the case, there would indeed be no need to use either monetary or fiscal controls to influence the volume of spending. They argue that such in fact is not the case. On the contrary, psychological and monetary factors tend to produce cumulative and often violent swings in total spending out of shocks which in and of themselves would not present serious problems. These men lay particular emphasis on the per-

verse elasticity of the money supply as the cause of the violent fluctuations in total spending.<sup>2</sup>

The perverse elasticity of the money supply is said to arise out of the practice of fractional reserve banking. As demonstrated in Chapter 22, a change of one dollar in the reserves of a bank operating on a fractional reserve basis can lead to a change in customer deposits several times larger. Thus an in-movement of one dollar in gold can make possible an increase in the money supply of the country of several dollars, the exact amount depending on the willingness of householders and firms to borrow and on the customary or required reserve ratio. In the same way, the out-movement of one dollar in gold can lead to a reduction in the money supply of several dollars.

Given an unregulated fractional reserve banking system, movements in one direction or another, whether up or down, tend to assume runaway proportions because of the extreme elasticity of the money supply. As evidence, they point to the fact that the expansion phase of the cycle has been characterized by rapid increases in deposit currency and the contraction phase by rapid decreases in deposit currency.

Some have argued that the cycle itself can be explained solely as the response of the economy to changes in the quantity of deposit currency. Others have admitted that the cycle may have other causes, but that the *violence* of the cycle is a direct result of this perversely elastic money supply.

If this reasoning is correct it follows that the cycle can be reduced (or eliminated) by eliminating the perverse elasticity of the money supply. Some propose that fractional reserve banking be replaced by 100 percent reserve banking, either 100 percent gold reserve or 100 percent fiat currency reserve. The operation of these two forms of 100 percent reserve banking was described in Chapter 23.

Others argue that the same results could be obtained with a less radical change. They propose that the Central Bank be given adequate powers to check rapid changes in the level of demand deposits and that the nature and timing of the use of those powers be written into the enabling law. This latter provision reflects the dissatisfaction of these men with the way in which Central Banks, including our own Federal Reserve System, have used their powers

<sup>2</sup> Most of the arguments to be presented in this section can be found in A. G. Hawtrey, "The Monetary Theory of the Trade Cycle," *Quarterly Journal of Economics*, Vol. 41, May 1927, p. 471 ff.; H. C. Simons, *A Positive Program for Laissez-faire*, Chicago University Press, Chicago: 1934; and Yale Brozen, *Textbook for Economics*, Wm. C. Brown Company, Dubuque, Iowa: 1948.

in the past. It reflects as well the preference of most economists for "rule by law" over "rule by men."

In general these men argue that, if extreme and rapid changes in total spending could be moderated in one or more of the ways described above, and if wages and other cost elements could be kept reasonably flexible, the economy could "give with the punches" that it must absorb if it is to participate in international trade and in economic progress. The central issues between these men and Keynesian economists turn on whether monetary controls are alone sufficient to moderate fluctuations in total spending and whether the economy can adjust to even moderate fluctuations. The main issue between these men and the uncompromising gold standard men is whether and to what extent monetary policy should be used to moderate the influence of gold movements on domestic prices and spending.

### THE STRUCTURAL DISEQUILIBRIUM THEORY

Up to this point we have presented no detailed non-Keynesian analysis of the business cycle. We have concerned ourselves largely with policy questions. We turn now to a study of one particular non-Keynesian *analysis* of the cycle usually identified as the *structural disequilibrium* or *monetary overinvestment* theory of the cycle.<sup>3</sup>

We have selected this particular theory for study for several reasons. In the first place it illustrates the role of monetary factors in the cycle, and is thus within the main stream of orthodox thinking. In the second place, it leads to conclusions diametrically opposed to the Keynesian conclusions and implies that Keynesian policy would make matters worse rather than better. Thus it serves to throw in high relief the issues that must be resolved in determining proper policy.

In the description of the cycle in Chapter 27, attention was drawn to the fact that the production-mix (the ratio between the output of consumer goods and the output of capital goods) changes continuously over the course of the cycle. The central thesis of the theory here under study is that the cycle is caused by unwarranted changes in the production-mix, with first too many, then too few, resources being devoted to the production of capital goods. The word "unwarranted" is used to signify that the changes in the production-mix

<sup>3</sup> The best statements of this theory are to be found in F. A. Hayek, *Monetary Theory and the Trade Cycle*, Harcourt, Brace & Co., New York: 1933, and G. Haberler, *Prosperity and Depression*, League of Nations, Geneva: 1937.

which produce the cycle do not reflect the real wishes of consumers. The distortion of the production-mix is said to be induced by changes in the quantity of money which permit investors to acquire funds that have not been voluntarily released by consumers.

**Warranted changes in the production-mix.** To understand this analysis it is necessary to understand what might be termed *warranted changes in the production-mix*. In Chapter 14 on Interest, it was shown that, in an economy with a fixed stock of money, the allocation of resources between the production of consumer goods and capital goods is determined by the savings decisions of consumers. The proper number of resources to be used in the capital goods industries is that number that can be purchased with the funds consumers voluntarily save, i.e., refrain from spending.

Suppose now that consumers decide to save more dollars than before. This will lead to an increase in the supply of loanable funds, a decrease in the interest rate, and hence an increase in the number of dollars borrowed for the purchase of capital goods. This decrease in the demand for consumer goods and the accompanying increase in demand for capital goods will lead to a shift of resources from consumer goods industries to capital goods industries. This is a warranted change in the production-mix. The resulting situation is stable because it reflects the voluntary decisions of consumers.

**Unwarranted changes in the production-mix.** Now suppose that would-be investors are able to acquire funds for the purchase of capital goods, not from the voluntary savings of consumers alone, but from newly created stocks of money as well. The study of banking under fractional reserve arrangements indicates that such newly created money may come from bank loans, as well as from government-sponsored increases in the supply of currency.

This newly created money permits the investor to bid more resources away from the consumer goods' industries than consumers have voluntarily released through their savings decisions. This leads to an unwarranted change in the production-mix, and the resulting situation is not stable because it does not reflect voluntary savings decisions of consumers. When this newly created money reaches consumers, as it must when it is spent to acquire resources, they will use it to bid resources back into the production of consumer goods. This will cause serious difficulty to the investors who have not as yet completed their capital goods' projects, and many of those projects will have to be abandoned with great losses. Moreover, because resources do not move back and forth between the

consumer goods and the capital goods industries with complete freedom, there is certain to be some unemployment.

*Application to the cycle.* It should be obvious how this analysis is applied to the business cycle. During the expansion phase, the use of newly created money leads to a structural disequilibrium, to unwarranted changes in the production-mix. The crisis comes when investors can no longer acquire new stocks of newly created money, a position that is certain to be reached eventually even under a fractional gold reserve banking system. The situation that then exists may be described as one of *overinvestment* (or, looked at another way, *undersaving*) and the downturn is simply the start of the inevitable reorganization of resource allocation that must come about. Because of psychological factors and because of the rapid decreases in the stock of money that follow the crisis, the reorganization or contraction phase may last for some time, will probably involve substantial unemployment, and may even carry the reorganization *beyond* the point where the production-mix accords with the spending and savings wishes of consumers.

Eventually, however, resources get shifted into consumer goods industries and out of the overexpanded capital goods industries and the stage is set for an inevitable recovery—and for the process to be repeated again.

**The role of the interest rate.** Cyclical fluctuations come because the interest rate is not permitted to perform its proper function, which is to tell would-be investors how many resources consumers are willing to release for the production of capital goods. Increases in the supply of loanable funds during the expansion phase, coming from stocks of newly created money, prevent the interest rate from rising to warn investors that there is a shortage of real savings. Thus they are led into error, into the error of launching more capital goods projects than consumers will let them complete.

**The solution.** The solution is obvious: Let the interest rate perform its proper function. This requires that the sources of newly created money be eliminated so that investors will always have to turn to supplies of consumer savings for the funds they desire to borrow. This would imply that fractional reserve banking must be replaced by 100% reserve banking, or at least must be subjected to careful control.

It also implies that the Keynesian policy of using government injections of new purchasing power at the upper turning point would simply postpone and make more difficult the inevitable day of reckoning. The problem is one of a structural disequilibrium, and the

disequilibrium can only be made worse by continued additions to the supply of money. Depressions, while disagreeable, are absolutely necessary periods of reorganization under the monetary arrangements that now exist. Either those arrangements must be changed or we must be willing to permit the depression-type adjustments to run their course and lead us eventually to another period of expansion.

### A COMPARISON OF ORTHODOX AND KEYNESIAN POSITIONS

Presented below, in tabular form, is a comparison of Keynesian and orthodox positions with respect to the business cycle. It would be well to preface this comparison with a word of caution. To say that a man is a Keynesian economist is to say, at most, that he approaches the business cycle with the goals, the tools, and the policies of what has come to be known as Keynesian economics. It implies nothing about his approach to other areas of economic inquiry where, actually, his approach may be either orthodox or heterodox. Also, the differences between the two groups are differences of degree only, of emphasis rather than kind.

Keynesian economics is neither Socialism nor Fascism; it represents a sincere attempt of a large number of competent persons to arrive at a solution to the serious problem of economic instability. Nor is orthodox economics Blind Reaction; it too represents a sincere attempt of competent persons to arrive at solutions to pressing human problems. The men in both groups are largely committed to a system of economic organization based on free markets and free decisions. The differences of opinion that exist simply reflect the difficulty of identifying and measuring all of the relationships that tie men and materials together in economic life. After all, man is still the great enigma and, because he represents the raw material of the social sciences, we cannot expect the same degree of unanimity of opinion there as in the natural sciences.

#### Goals

##### KEYNESIAN

Full employment should be the single most important goal of public economic policy; our ability to attain other goals depends on our first having attained this goal.

##### ORTHODOX

Full employment is an important goal; but, so is maximum output, international integration, avoiding inflation, preventing government encroachment on private sectors of the economy, etc.

### Analysis

- |  |  |
|--|--|
| <p>1. Large-scale unemployment is caused by too low a level of effective demand.</p>   | <p>1. Large-scale unemployment may be caused by a variety of factors, including misdirected demand as well as a low level of effective demand, inflexible wages and costs, an overly elastic money supply.</p> |
| <p>2. The recovery from a low level of economic activity is not necessarily automatic; positive intervention may be needed to jar the economy out of an underemployment equilibrium.</p> | <p>2. The forces making for a recovery from depression are self-generating.</p>  |

### Policy

- |  |  |
|--|--|
| <p>1. Full-employment policy should be directed to the goal of preventing the level of effective demand from falling below the level adequate to provide full employment at prevailing wages and prices.</p> | <p>1. Policy should be directed, at most, to moderating rather than eliminating fluctuations in effective demand.</p>  |
| <p>2. Attempts to increase the flexibility of wages and other cost elements would be both unwise and futile.</p>   | <p>2. Wages and other costs should and can be made more flexible.</p>  |
| <p>3. Monetary policy should be used to maintain a low-interest rate, except in periods of inflation; however, monetary policy alone is inadequate to the task of maintaining effective demand.</p>          | <p>3. Monetary policy should permit the interest rate to perform its normal function of transmitting the wishes of consumers to investors. At the same time monetary policy should be used to prevent violent fluctuations in the quantity of money.</p>                               |
| <p>4. If the economy seems to be threatened with unemployment, steps should be taken to redistribute income so as to increase the propensity to consume.</p>   | <p>4. Redistribution of income should be undertaken only to take care of hardship cases or to satisfy the ethical criteria of the people; if undertaken, it should be done in such a way and with such moderation as would do least damage to the incentive system of the economy.</p> |

5. Primary reliance should be placed on government deficits and surpluses as offsets to destabilizing influences in the economy. In particular, governments should stand ready to increase their expenditures (or reduce their tax rates) if private investment spending is not sufficient to fill the gap between consumer spending and the required level of total spending.

5. Substantial use of fiscal policy to influence total spending is politically unwise and economically undesirable. It takes attention away from the real problem of the failure of the adjustment mechanisms of the economy. It can easily lead to inflation, either open or suppressed. At the same time, governments should permit the deficits to arise that naturally follow from the organization of the fiscal system in a period of falling incomes. If any additional use should be made of deficit finance, it should be accomplished through cuts in taxes rather than deliberate (and often wasteful) increases in spending.

6. Finally, no one should be permitted to suffer extreme physical hardship during a depression.

6. Agree.

**A concluding note.** This completes the apprenticeship training on the basic tools of economic thinking. Obviously the tools developed here fall short, both in numbers and level of sophistication, of those in the kit of the professional economist. However, the person who has mastered the use of the basic tools is better equipped than one who has not mastered them to understand the nature of the choices confronting him as a citizen, and thus better equipped to assume the responsibilities of citizenship.

We now propose to show how these tools can be used to analyze a few of the more important problems that confront the American economy. We have selected for study six broad problem areas: (1) government and business; (2) government and labor; (3) government and agriculture; (4) social security; (5) international economic relations; and (6) fiscal policy. We then turn to a study of alternatives to the private enterprise form of economic organization.

### *Questions:*

1. "Non-Keynesian economists believe that no attempts should be made to control the level of total spending in the economy." Discuss.
2. "The operation of the gold standard inevitably produces alternating

periods of full and under-full employment." Discuss in the following framework: (a) The validity of the thesis that the operation of the gold standard inevitably produces fluctuations in the level of effective demand, and (b) the validity of the thesis that such fluctuations in effective demand must inevitably produce wide fluctuations in the level of employment.

3. "The only way in which a country can maintain absolute stability of prices and employment is to cut itself off from all contacts with the outside world." Discuss.
4. Identify the way in which fractional reserve banking is said to contribute to fluctuations in effective demand. Does this line of thinking lead inevitably to the conclusion that fractional reserve banking must be eliminated? Why or why not?
5. (a) Distinguish between "warranted" and "unwarranted" changes in the production-mix.  
(b) Identify the relationship between "unwarranted" changes in the production-mix and changes in the quantity of money.  
(c) This analysis is said to lead to the conclusion that depressions are necessary and inevitable periods of "purging" the economy of structural disequilibria. Outline the rationale behind this argument.  
(d) Identify the way in which this line of reasoning leads to the conclusion that the Keynesian policy of pouring new money into the economic system to prevent depression would only make matters worse.
6. "A Keynesian economist is one who rejects all of the conclusions of traditional economic thinking." Discuss.
7. "The only solution which Keynesian economists have for a depression is for the government to spend huge amounts of money on public works." Discuss.
8. "Orthodox economists believe that full employment is not a desirable social goal." Discuss.



PART SIX

*Business and Labor*



## *Government and Business*

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WE HAVE now completed our account of the way in which an enterprise economy is supposed to work. We began with a highly simplified model and with a very demanding definition of competition. We then proceeded to withdraw the limiting assumptions. First of all we recognized that a national economy is a growing thing; there is growth in population and progress in the arts. Growth introduces a large element of uncertainty into human calculations. This led us to revise our definition of competition in terms of performance rather than of market structure. Next we withdrew the assumption of isolation and discovered that differences in rates of growth of the factors of production and differences in social attitudes toward private enterprise are such that market forces may be expected for some time to come to widen rather than narrow national differences in factoral rewards and hence in international levels of living.

The chapter on the State provided us with some useful tests for determining what the State should and should not do to create the kind of environment required if private enterprise is to promote the general welfare. One of the recognized functions of the State is to provide a medium of exchange. Chapters 21 through 26 were devoted to an examination of the ways in which national States discharge this responsibility. Our conclusion, which admittedly involved a political judgment, was that, in terms of alternatives, the gold standard is still best in that it provides a bulwark against fiscal irresponsibility and a common measuring rod that favors international specialization and international trade. We also discovered that the handling of the money problem has a direct and important bearing on the capacity of an economy to provide a high and sustained level of employment.

The three immediately preceding chapters reviewed the history of business fluctuations and a number of the attempts at explaining the causes of these fluctuations. Several explanations were examined in some detail. We noted that, although the same policy recommendations could be derived from most of them, the tendency has been the other way. In general those who make use of the Keynesian theory of effective demand rank full employment higher in their goals for a free society and show more confidence in the State as the agency for bringing about adjustments than do those who prefer to use more orthodox theories for policy recommendation purposes. These divergences are thus due in part to differences in value judgments.

We now proceed to an examination of a number of contemporary economic problems.

In this chapter we shall consider the relationship of the State to business. In succeeding chapters we shall examine the State's relationship to labor and to agriculture. Thereafter we shall deal with the State's efforts to provide a greater degree of security to individuals with insufficient claims to earned income—the so-called problem of social security—and to the people as a whole as a result of their economic dealings with people in other countries. Finally we shall examine the relative merits of private enterprise and public enterprise as organizing principles and of the possibility of a middle way which has come to be labeled "Planning."

### GOVERNMENT AS A PROMOTER OF COMPETITION

In this country public opinion, until very recently at least, appeared to favor competition as the best method of inducing the businessman to serve the consumer. At the same time our elected representatives at the local, state, and federal levels have always been subject to group pressures. Most groups endorse competition in principle, but consistently urge the need for protection of their special interests against "unfair" competition. The ideal of each special interest group appears to be: a bit of monopoly for us; vigorous competition for the others. It is not surprising, therefore, that public controls always involve inconsistencies. We shall find that government is at one and the same time a promoter of competition and of monopoly. This section deals with the role of government as a promoter of business competition.

**Anglo-Saxon common law.** In the Middle Ages competition as we know it was virtually nonexistent. Economic activities were minutely controlled both on the manors and in the towns. The

rights and duties of the serfs and the freemen on the manors were prescribed and protected by custom. In the towns the guilds exercised a similar control, in which custom also played a large role. The public looked to authority and not to the market to see to it that the rules of the game were enforced.

As the medieval order broke down, individual initiative came to play an increasingly important role. Perhaps it would be more accurate to say that as more and more individuals defied immemorial custom the old order broke down. In England the common or customary law worked constantly to consolidate and extend the area within which the individual could work out his own salvation, protected from the guilds, on the one hand, and the King on the other. In the course of time the English common law became the great shield and buckler of the individual against the unreasonable restraints on his right to earn his living as he saw fit.

The English colonists took this common law with them to the New World. Much of it is still recognized by our state and federal courts. In general, with reference to the problem at hand, it is designed to promote competition by making illegal unreasonable restraints on trade through unfair competition and efforts to monopolize or coerce.

The phrase "pursuit of happiness," which is listed in our Declaration of Independence as one of the inalienable rights of man, appears to have meant, among other things, the right to pursue "any of the known established trades and occupations of the country, subject only to such restraints as equally affected all others."<sup>1</sup>

The enforcement of the common law is conservative and economical. It is conservative because it builds on precedents. A competent lawyer, familiar with judicial opinions going back over several centuries, can tell his business client with considerable confidence whether the courts will hold a proposed line of action to be legal or illegal. This certainty that there will be no sudden change in the rules of the game fosters investment, innovation, and risk-taking. At the same time the ingenuity of the judges can always be counted upon to discover ways of outlawing business practices which public opinion has come to disapprove of strongly.

The common law is also very economical of administration because it relies upon the injured party to bring his case before the courts. Every businessman, every worker, and every consumer is thus a potential law enforcement officer.

Nonetheless the common law has its shortcomings. The costs of

<sup>1</sup> Justice Field in the *Slaughter House Cases*, 16 Wall. 36 (1873).

obtaining justice may be prohibitive for the little fellow. In a technologically progressive society the lag in bringing common law rules into line with the requirements of new situations may be excessively long. Finally the common law has difficulty in dealing with practices that involve interstate trade. Consequently statute law has come to the aid of common law. But neither the common law nor the statute laws enacted by the several states could cope with problems involving interstate trade. It was this fact that led to the popular demand during the last quarter of the 19th century that the federal government should assist in the enforcement of competition through its power to regulate commerce between the states. The Sherman Act of 1890 was the result of this popular demand.

**Anti-trust: The record.** The Sherman Act was regarded at the time as an implementor of the common law.<sup>2</sup> The Act declared that "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations" was illegal, and that every person "who shall monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several states, or with foreign nations" should be deemed guilty of a misdemeanor. Violations were made subject to criminal penalties (fines and imprisonments) and civil penalties which might include the breaking up of monopolistic combinations. An injured party may sue to recover threefold the damage sustained, including the costs of the suit.

In 1914 two important acts were passed, designed to strengthen the Sherman Act.

The Federal Trade Commission Act established a five man bipartisan board which was to keep under constant survey business practices and to issue complaints and "cease and desist" orders against "unfair methods of competition in interstate trade." Following a court decision in 1920 (the Gratz Case) the Commission may also issue "cease and desist" orders against practices which tend "unduly to hinder competition and create monopoly." Prior to 1938 the courts held that the "unfair methods" must have injured a competitor before they would be declared illegal. Proved injury to consumers was regrettable but not illegal. The Wheeler-Lea amendment of 1938 added the concept of *deceptive* to that of

<sup>2</sup> See Vernon A. Mund, *Government and Business*, Harper & Bros., New York: 1950, p. 145.

*unfair* with a view to bringing the interests of the consumer within the purview of the Commission.

The Clayton Act was directed at the elimination of so-called cut-throat competition. Section 2 of the Act prohibited (a) price discrimination in the sale of commodities of like grade and quantity when the effect is to injure or prevent competition, unless (and here is the loophole which makes the administration of the Act uncertain) the discrimination is undertaken in good faith to meet competition; (b) exclusive sales or tying contracts; (c) corporate ownership of stock in competing corporations; and (d) interlocking directorships. Section 7 was directed against consolidations of competing companies by stock acquisitions undertaken with a view "to substantially lessen competition."

The Robinson-Patman Act of 1936 was passed with a view to protecting small distributors against big distributors like the Atlantic and Pacific Tea Company (A & P) by giving the Federal Trade Commission the power to fix the permissible limits for quantity discounts. The offer or the accepting of a discount in excess of the permissible limit constitutes a criminal offense.

An elementary textbook in economics is not the place to describe in detail the operation of these and other federal measures which have been enacted for the purpose of strengthening competition. There is space here only to indicate some of the more significant developments.

1. The courts have consistently taken the position that *collusive practices* are illegal. In so far as these practices are condemned by reputable businessmen, the Act appears to have been reasonably effective in restraining the minority who will always make sharp deals if they think they can get away with it. It has thus helped raise the plane of competition.

2. At the time the Act was passed joint action by competitors was frequently brought about by the process of transferring a sufficient number of shares in competing firms to *trustees* to enable them to dictate the policies of the several companies. The Act ended this type of collusive action.

3. But in ending collusion through trust agreements the Act promoted the outright *consolidation* of competing companies. One company would buy up the stock of competitors or purchase their physical assets. Or a new company would be formed which would acquire control of competing facilities by purchase. In 1895 the Supreme Court held that such mergers of manufacturing enter-

prises were legal since they did not involve commerce as such.<sup>3</sup> Hence the remedy, if any, lay with the states. The United States Steel Corporation provided the most dramatic example of the possibilities of growth by merger. The Corporation was incorporated under the laws of New Jersey in 1901. It brought within one giant corporation a number of corporations which were themselves the results of recent mergers. Thus it acquired the Carnegie Steel Company with 20 plants, the Federal Steel Company with 20 plants, the American Steel and Wire Company with 39 plants, the National Tube Company with 15 plants, the American Bridge Company with 26 plants, the National Steel Company with 10 plants, the American Tin Plate Company with 265 plants, the American Sheet Steel Company with 26 plants, and the American Steel Hoop Company with 14 plants. It was figured at the time that the United States Steel Corporation controlled 56 to 70 percent of all lines of steel manufacturing and some 80 percent of the best iron ore reserves in the country.

4. Mergers such as this raised squarely the *problem of bigness*. Can enterprise remain effectively competitive if the government permits one firm to gain a commanding position in an industry? Throughout the first three decades of this century the Supreme Court, applying what was called "the rule of reason," consistently took the position that bigness was not illegal under the Sherman Act unless there was clear evidence of "unworthy motives" and "predatory acts."

During the 1930s there was a marked change in the climate of opinion. Two court decisions during the 1940s indicated that "bigness per se" constitutes a presumption that the power to monopolize exists and that it is contrary to public interest that this power should rest in private hands, regardless of whether it is in fact exercised to raise prices and restrict competition.<sup>4</sup> That this new attitude is not a partisan political attitude is clear from the fact that in 1950 the late Senator Taft suggested that Congress "should consider whether we should place a limit on the proportion of any industry which can be controlled by one company."<sup>5</sup> David E.

<sup>3</sup> *U.S. v. E. C. Knight Co.*, 156 U.S. I, 9. 7 (1895).

<sup>4</sup> This new view was handed down in the government's suits against the Aluminum Company of America and the "Big Three" tobacco companies—The American Tobacco Company, Liggett and Myers Tobacco Company, and R. J. Reynolds Tobacco Company.

<sup>5</sup> This quotation is taken from David E. Lilienthal, *Big Business: A New Era*, Harper & Bros., New York: 1953, p. 136.

Lilienthal holds that "the shadow of criminality" now "hangs over some of our highly respected business leaders."<sup>6</sup>

**Anti-Trust: an appraisal.** Most students of our anti-trust laws believe that they have contributed to the maintenance of competition in the United States. That monopoly and collusive practices are not more widespread appears to be due to the fact that public opinion in all walks of life (and not least in business circles) frowns on both, and to the further fact that, with the exceptions presently to be noted, efforts to monopolize or to restrain trade unduly lack the protection of government. Hence the "perennial gale of competition" of which Professor Schumpeter spoke breaks down the barriers which ingenious businessmen and their lawyers are continuously erecting.

We do not wish to give the impression that the situation is entirely satisfactory or that there is not much that our federal and state governments could do under existing laws to strengthen the competitive forces in the economy. Nor are we saying that all "unfair practices" have been eliminated. The list of such practices revealed by the "cease and desist" orders of the Federal Trade Commission, and reproduced in the footnote below,<sup>7</sup> shows that competition is a rough-and-tumble game in which the unscrupulous and the hard-pressed will resort to measures which the vast majority of businessmen will refuse to follow as long as they can look to the courts for relief. It seems highly probable that these practices would be far more prevalent than they are but for this fact. The

<sup>6</sup> *Ibid.*, p. 167.

<sup>7</sup> This list is from Vernon A. Munsel, *Government and Business*, Harper & Bros., New York: 1950, p. 319.

- Acquiring confidential information unfairly.
- Advertising falsely or misleadingly.
- Appropriating tradename or mark wrongfully.
- Bribing customers employees.
- Claiming indorsements or testimonials falsely.
- Cutting off competitors' access to customers or market.
- Cutting off competitors' supplies.
- Cutting prices arbitrarily to discipline a competitor acting independently on price.
- Disparaging competitors and their products.
- Inducing breach of competitors' contracts.
- Misbranding or mislabeling.
- Operating secret subsidiary.
- Passing off a product as and for that of a competitor.
- Threatening infringement suits, not in good faith, to stifle competition.
- Using or selling lottery devices in merchandising a product.
- Delivering short measure.
- Selling below cost to stifle competition.
- Acquiring stock of competitor.

success of anti-trust legislation is to be judged as much or more by the illicit acts it prevents as by those it catches and punishes.

Our own conclusion is that if, as some allege (and, we think, wrongly), our economy is becoming less competitive, this is not due to anything inherent in the nature of private enterprise, but rather to the willingness of government to provide the protection of monopoly to special interest groups.

**Providing information.** Before leaving the topic of the role of government as a promoter of competition a word is needed regarding a relatively inexpensive and very useful service of the federal government to business. We refer to the unceasing volume of up-to-date and accurate information regarding market conditions provided by various government offices. The Bureau of Foreign and Domestic Commerce of the U.S. Department of Commerce issues regular statistics of business activities which are very useful to firms in making their production and marketing plans. The U.S. Department of Labor's regular reports on wages and labor market conditions are helpful. The monthly Federal Reserve Bulletins issued by the Board of Governors of the Federal Reserve System and the Bulletins of the twelve Federal Reserve Banks contain invaluable data needed for intelligent forward planning by business firms. These are just a few examples of the way in which our government fosters business enterprise by reducing the area of uncertainty that derives from ignorance of ascertainable facts. Needless to say, these public activities are entirely consistent with the operating requirements of a system which requires that the participants in the play shall act as much as possible on the basis of knowledge.

### GOVERNMENT AS A PROMOTER OF MONOPOLY

Government, as was pointed out earlier, is responsive to popular pressures and some of these pressures are directed against competition and in favor of monopoly. Sometimes the grant of monopoly power is consistent with the ideal of a competitive enterprise system (as when the government grants a temporary monopoly as a means of encouraging progress in the arts and sciences or when it recognizes that in limited areas the public interest is better served by recognizing and regulating monopoly), but in other cases it represents a capitulation to powerful pressure groups. There is space here for no more than a listing of some of the more important ways in which government favors monopoly, with the briefest of indications of the views of the authors regarding the consistency

or inconsistency of the measures with the over-all ideal of a competitive enterprise system.

**Patents, copyrights, licenses, and franchises.** Patents and copyrights are temporary monopolies granted by government for the purpose of promoting progress in arts and sciences (cultural and technical). In the long run they serve to strengthen and improve the operation of a competitive enterprise system.

A *patent* is "a government grant to a person by which he is the only one allowed to make or sell a new invention for a certain number of years." The Constitution of the United States gives Congress this authority for the purpose of promoting "the progress of science and the useful arts by securing for limited times to authors and inventors the *exclusive* rights to their respective writings and discoveries." Our patent laws, which date from 1790, and which have been little changed since 1870, give the inventor of a process that is "new and useful" the exclusive right to make, use, or sell his invention. This right runs for a period of 17 years. The "new and useful" test is very difficult to apply. The Patent Office generally, and probably correctly, gives the patentee the benefit of the doubt. It may well be, however, that unnecessary abuses have developed in a law that has been unchanged for more than 80 years. We are not here concerned with the pros and cons of the patent controversy, other than to note that patents constitute a publicly sanctioned monopoly, which is supposed to protect the consumer in the long run by its favorable effects on the progress of the industrial arts.

*Copyrights* give similar protection to the works of authors, artists, musicians, playwrights, and others in the creative arts. In the United States this exclusive right runs for 28 years from the date of publication, and may be renewed for another 28 years.

*Licenses* and *franchises* are also devices for the deliberate creation of monopoly. A municipality very properly limits to a single firm the right to tear up streets and establish the water mains needed to serve its customers. The same situation holds for gas and electricity and telephone service. These public utilities, as they are known, are natural monopolies, in the sense that the consumers are better served by one company than by many. In all these cases competition would be either wasteful or unsatisfactory. Consequently the governmental unit involved is faced with the choice of providing the service itself, or of authorizing a private firm to do so, and then regulating it to see that the interests of the consumers are protected.

**The tariff.** Protective tariffs, as we have seen, limit the size of the market and hence prevent the full development of territorial specialization. If the territorial market is made small enough, the economies of size may be unattainable or attainable only at the price of accepting monopoly or oligopoly. When this happens, the market structure is a creation of government, and if the actors behave as monopolists and oligopolists are supposed to behave, the remedy would appear to be to widen the market by removing or reducing the tariff barricades.

In general the vastness of the American domestic market has been sufficient to support a considerable number of firms, thus giving us the protection that comes from numbers. The fact remains, however, that the American tariff has and continues to be a potent force limiting competition in certain lines. We shall argue later that a reduction of tariffs to moderate levels and, equally important, a stabilization of duties at these levels would increase the competitiveness of the American economy.<sup>8</sup> Here it suffices to note that any list of overt acts of government designed to foster monopoly would be incomplete that failed to include our protective tariffs.

**Public monopolies.** In all capitalistic countries some activities which private enterprise could handle are owned and operated by the State. A good argument can be made for public ownership and operation of natural monopolies. By definition competition cannot protect the public interest in such cases. Government must assume responsibility for seeing to it that the appropriate amount of capital is invested in these fields, that this capital is permitted to earn a return comparable to that in the competitive area, and that those employed in these enterprises get neither more nor less than people of comparable skills and responsibilities get in the competitive area. Government can do this through regulation or through ownership and operation. Regulation involves a duplication of effort. First of all, the managements of the monopolies make all of the usual operating decisions and then public commissions check and countercheck, approve or disapprove. The late Professor Henry C. Simons of the University of Chicago argued in his article, "A Positive Program for Laissez-Faire"<sup>9</sup> that natural monopolies belonged in the public domain.

<sup>8</sup> See Chapters 19, 38, and 40 and especially p. 585 ff. for the test of moderate tariffs.

<sup>9</sup> This article was published by the University of Chicago Press, in 1934. It was reproduced in the posthumous collection of some of Simon's shorter and less accessible articles which appeared under the title *Economic Policy for a Free Society*, University of Chicago Press, Chicago: 1948.

Public ownership of municipal utilities is widespread in the United States. The United States Post Office is a monopoly, and the TVA (a wholly federally owned corporation) has a monopoly of the generation of electric power in the Tennessee Valley. In many European countries the railroads and the telephone and telegraph services were, from the beginning, developed and operated by governments.

The theory of indirect benefits has also been advanced in favor of government ownership of natural monopolies which provide a multiplicity of benefits, direct and indirect, measurable and immeasurable. We recognized this theory in our discussion of the functions of the State in connection with multiple-purpose enterprises. Where a private firm cannot charge for real benefits because of its inability to trace them to particular individuals and to exact a payment for them, investment will stop short of the theoretical optimum amount. Such situations require that the government make the additional investment. It can do this through subsidies to private firms or through direct operations.

The TVA has been defended on the basis of this theory. We regard the theory as correct, but at the same time we admit that the inability to measure these indirect benefits makes it very easy for proponents of government action to exaggerate the benefits and push investment far beyond the limit indicated by the theory. This danger is particularly great if the people in the area within which most of the indirect benefits accrue do not have to pay most of the costs. When the federal government intervenes, the pressures for overinvestment by the people in the benefited area are at a maximum. The pressures are much less if the enterprises are carried out by the states and their local subdivisions, or by a group of states acting on the authority of an interstate compact. The Port of New York Authority provides an example of a large public enterprise carried on by a public agency deriving its powers from a group of states.

All of the foregoing acts of government, including tariffs, provided they be stable and moderate, can, without too much difficulty, be defended as consistent with the operating requirements of a predominantly private enterprise form of economic organization. There have been increasing examples of late, however, of a loss of faith in the over-all beneficence of competition. Those producers who are threatened by competition seek protection. They argue that they are performing socially valuable services and that the impersonal forces of the market should not be allowed to eliminate

them. They appeal to our sense of fair play, to our very natural sympathy for the weak. Yet when the State intervenes to protect the weak, it is in fact restricting the opportunity for the more efficient to serve consumers. In the long run, the owners of resources are also hurt since they are prevented from transferring their resources to the firms which could and would pay more for the use of them. As was pointed out in the earlier discussion of profits (Chapter 12) public approval should not go to the businessman who is losing money, but rather to the one who is competing fairly and is making money, for it is he who is best serving the interests of all of us as consumers and as resource owners.

**Fair trade practices.** During the 1930s one state after another undertook to aid branches of the retail trade by the passage of fair trade laws. These laws affect, for the most part, brand-name products, particularly liquors, drugs, cosmetics, cigarettes, and other triumphs of the art of product differentiation through advertising. In many states the acceptance by a single retailer of an agreement not to sell a brand-name product below a specified price made every other retailer subject to criminal prosecution if he cut below the fair-traded price. Customers could, however, buy the same articles at lower prices in states which had not enacted fair trade laws and have them shipped in by express or parcel post. The merchants in the "fair trade" states naturally complained and, accordingly, in 1937 the Congress of the United States passed the Miller-Tydings Act.<sup>10</sup> This Act forbade the importation and sale of fair-traded products to consumers in "fair trade" states at less than the price to which the local dealers were committed. With this encouragement state after state enacted retail price maintenance laws until, at the end of 1950, only three states had refused to join the procession. In May, 1951, the Supreme Court declared the Act unconstitutional, but in 1952 the Congress enacted further legislation which appears to have gotten around the constitutional hurdle erected by the Court.

**Interstate trade barriers.** In joining the Federal Union the several states gave up the right to protect their domestic markets from interstate competition. In so doing they created the largest free-trade market in the world, and paved the way for the tremendous industrial development of the next century and a half. The difference in the productivity of American labor, and hence in the level of living of the American worker, as compared with the produc-

<sup>10</sup> This law was passed in the form of a rider to the District of Columbia Appropriations Act of that year and over the protest of President Roosevelt.

tivity of that of Western Europe, the birthplace of the Industrial Revolution, is perhaps due as much to this market situation as to any other single force. Yet in recent years, and particularly during The Great Depression of the 1930s, state governments made extensive use of the police power, ostensibly to preserve the safety, health, and general well-being of their citizens, but in fact to shelter local businesses from interstate competition.

A study made at the University of Michigan and published by the U.S. Department of Commerce in 1942<sup>11</sup> listed state protective devices under the following five headings:

1. Barriers by prohibitions.
2. Barriers by protective tariffs.
3. Barriers by special requirement.
4. Barriers by indirection.
5. Barriers by equalization.

There is space here for only one or two examples of each of these protective devices. (The statements are put in the past tense, since the practices are continually changing and some of those cited here may no longer be in effect. The barricades are still numerous and vexatious.)

Many states restricted state-supported institutions to the purchase of supplies manufactured within the state. Employment on public works was frequently limited to citizens of the state.

Michigan taxed wine made from grapes not grown within the state 12½ times as heavily as wine made in Michigan from products 75 percent or more grown within the state.

A favorite protective device was to impose a special tax upon imports which was not imposed on local producers. To all intent and purposes this is a protective tariff of the kind the Constitution was intended to outlaw.

The practice of Oklahoma of requiring that bread manufactured outside the state and sold within the state had to be labeled with the date and hour of baking is an example of protection by the imposition of a special requirement.

New York's protection of her dairy industry provided a neat example of protection by indirection. No out-of-state firm could sell milk or cream within the state without first obtaining a permit from the New York Commissioner of Health. And he could not issue such a permit unless a representative from his office had per-

<sup>11</sup> E. H. Gault and E. S. Wolaver, *Interstate Trade Barriers and Michigan Industry*, U.S. Dept. of Commerce, Bureau of Foreign and Domestic Commerce, Govt. Printing Office, Washington: 1942.

sonally inspected the out-of-state producer's cows, barns, stables, milk houses, water supply, milk equipment, utensils and milk.

Barriers by equalization were secured by passing regulatory laws which differed materially from similar regulatory laws in other states. Compliance with these special regulations made it unprofitable for most out-of-state firms to attempt to enter the market. Unshelled walnuts and filberts sold in Oregon had to meet special Oregon standards. Conflicting state motor vehicle laws prevented "the full use of our highways for trucking purposes."

### CONCLUSION

When one takes into account all of the restrictions on competition imposed by federal and state laws it seems to many economists, including the writers, that *government* and not *Big Business* represents the major force promoting monopoly in the United States at the present time. Some of these interventions may have a favorable long-run effect on competition (copyrights and patents, for example), but most of them are the result of pressures upon our law makers coming from the little fellow who seeks to protect himself as best he can from the perennial gale of competition which appears to be characteristic of a vigorous and dynamic capitalism.

In the next few chapters we shall show how these same pressures have gone far toward exempting organized workers and organized farmers from the test of competitive markets.

### Questions:

1. Indicate how English common law promoted private competitive enterprises and why it is at once conservative and economical.
2. Identify briefly the federal laws listed in the text which modified the Sherman Anti-Trust Act and indicate the nature of the modifications.
3. "The anti-trust laws have been more successful in preventing agreements through collusion than through mergers of competing firms." True or false? In the light of the discussion of collusion in Chapter 17 argue for or against the proposition that it is socially more desirable to outlaw collusion than mergers.
4. Identify the "rule of reason" and its relevance to the problem of bigness, and indicate the present position of the Supreme Court on the issue of bigness.
5. Argue for and against the proposition that the federal government

should "place a limit on the proportion of an industry which can be controlled by one company."

6. Identify public measures which promote monopoly and indicate with supporting reasons which, if any, appear to be consistent with the operating requirements of a vigorous, growing and responsible private enterprise system.
7. "Both the common law which the American colonists brought with them from England and the Federal Constitution which they adopted in 1789 were designed to protect and foster competitive private enterprise." Argue, with supporting reasons, for or against the correctness of this statement.

## *Wage Policy and Employment*

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WAGES have never been determined exclusively by competitive market forces. In feudal times the guilds and the municipal authorities undertook to fix “just” wages, which meant wages just sufficient to permit workers to live according to the customary standards of their class. During the Mercantilist period national governments tried to keep wages down both because high wages were thought to encourage extravagance, sloth, and idleness and because of the fear that they would prevent a country from developing a favorable balance of trade. During the course of the 19th century attempts at fixing wages were abandoned by all of the important industrial countries. Reliance was placed on competition to fix them at their appropriate levels. Efforts of workers to raise wages through collective bargaining were either forbidden or severely circumscribed. Nonetheless, even in the hey-day of competitive capitalism, custom-made wages were sticky, causing them to lag behind prices, both on the up- and the downswing of the business cycle. Most contemporary democratic governments now attempt directly and indirectly to raise wages and narrow the geographical and skill differentials which market forces tend to produce. While the pressures behind these interventions are primarily political, the supporting arguments are predominantly ethical.

In this chapter we shall identify four “ethical” propositions frequently advanced as tests of the fairness of prevailing wages and then consider how wages conforming to these propositions would affect the performance of a private enterprise economy, and the welfare of wage earners, taken as a whole. In the next two chapters we shall describe and appraise recent federal labor legislation in the light of our theoretical conclusions.

**Ethical wage standards.** The following four propositions are frequently advanced as tests for determining whether prevailing wages are fair:

1. Wages should be based on ability to pay.
2. Wages for similar work should be equal.
3. The minimum permissible wage should be high enough to provide an unskilled worker and his family with enough for health, efficiency, and general well being.
4. Wages should be high enough to enable workers to buy back the products of industry.

We shall examine these propositions first on the assumption that an economy has already reached general equilibrium; thereafter we shall reexamine them on the assumption that an economy has not yet reached its general equilibrium position.

### THE STRUCTURE OF WAGES IN AN ECONOMY IN LONG-RUN EQUILIBRIUM

In an economy operating under conditions of pure and perfect competition and in long-run equilibrium, wages would be based on ability to pay and real wages for equal work would everywhere be the same. Whether the wages for the unskilled would satisfy the "health, efficiency, and general well being" standard would depend upon the productivity of the economy and the height of the standard. If workers refused to marry and have families until they received some specified minimum real wage, this minimum would finally come to prevail. Population would decline and the marginal productivity of the labor of the unskilled would rise to this minimum level. The position of long-run equilibrium would be attained when population had become adjusted to this minimum, and thereafter total population would increase only if and as total productivity increased.

The fourth proposition should not be taken literally. Obviously the labor market would be thrown into utter confusion if workers making chewing gum were to be paid only enough to buy gum while those engaged in fashioning mink coats had to be paid enough to clothe their families in mink.

What really lies behind the proposition is the idea that wages constitute a particularly effective form of purchasing power and that it is this purchasing power which keeps the wheels of industry turning. But, in fact, profits, rents, and interest also represent purchasing power, and those who receive them will normally spend

them for consumer goods or turn them over to firms which will use them for expanding productive capacity. As long as they are spent or invested, they turn the wheels of industry just as effectively as if they had been transferred to workers.

Some economists who recognize that profits and property incomes are purchasing power nonetheless believe that there is an element of truth in this proposition. They reason that any given amount of income going to wage earners re-enters the income stream more promptly than an equal amount going to receivers of interest, rents, and profits. These latter will save a portion, and this will cause unemployment whenever satisfactory investment opportunities fail to materialize. They argue: the higher the proportion of the income generated by current production distributed to wage earners, the steadier will be the level of production and employment. True, the secular rise in the level of production and the level of real wages will be reduced, but this is regarded as a development which, on balance, may well prove more satisfactory to more people than one which pays for a more rapid secular advance in real incomes in the form of unnecessarily large fluctuations in employment.

The validity of this argument rests in part on "the mature economy" thesis and in part on the assumption that there is a tendency to chronic oversaving in the economy. Even if the argument were valid, it would constitute only an argument in favor of income redistribution by *some* method, and not proof that this redistribution should be effected by arbitrary wage-setting. Our own view is that this fourth proposition only serves to confuse the issue and that it has no place in a discussion of the problem of fair wages. The other three, on the other hand, are all true when the economy is in long-run equilibrium.

#### THE STRUCTURE OF WAGES IN AN ECONOMY APPROACHING LONG-RUN GENERAL EQUILIBRIUM

The fact that the first three "ethical" propositions *would* be realized when the economy had reached long-run equilibrium does not prove that they *should* prevail during the period in which the economy is approaching the equilibrium position. During the transition period they cannot all be true, and, as we shall show presently, an attempt to impose them by law or by collective bargaining would render more difficult the attainment of general equilibrium.

**The ability-to-pay principle.** Ability to pay varies from firm to firm within the industries making up the national economy, and

from industry to industry. Some industries will be highly profitable and expanding; others will be losing money and contracting. The resulting profits and losses allocate resources to the most efficient firms in each industry and induce them to operate at the scales at which their marginal costs equal market prices. Profit differentials provide the signals and the incentives which the firms must get if the orders of the consumers are to be executed. If now the workers in the profitable plants and the profitable industries are able to transfer to themselves in the form of higher wages most of the profits of the transition period, while the workers in the unprofitable plants and the unprofitable industries are forced to share the losses of the transition period, in the form of lower wages, the attainment of general equilibrium will be slowed down, if not halted entirely. During the transition period there is no place for the ability-to-pay principle. Moreover, it is inconsistent with the equal-pay-for-similar-work principle.

**Equal pay for similar work.** This is a sounder principle than the preceding one. Even during the transitional period competition tends to realize it within particular communities, if account is taken of the distinction between real and equalizing wage differentials. It does not prevail, however, as between communities.

*Intracommunity wage differentials.* Within single communities there will be differences in money wages for similar work, based upon the attractiveness of the jobs. If the work of a secretary in a doctor's or a lawyer's office has a greater appeal than a corresponding job in a steel plant, competition will produce differences in money wages. The more attractive jobs will pay less. Such differentials are equalizing, and there is no ethical reason for prohibiting them.

Sometimes an apparent violation of the principle turns out to be no violation at all. Two manufacturing plants in the same locality may have different wage scales for identical job classifications. The management of one plant deliberately pays wages that are low by local standards, while the other just as deliberately aims at paying the highest wages in the community. Superficially, the principle of equal pay for equal work is violated. In fact, the high-wage-paying firm attracts superior workers whose productivity is greater than that of the workers in the other plant.

Such differentials do not violate the principle of equal-pay-for-equal work. Furthermore the interests of consumers and workers alike may be better served by separating the superior and inferior workers than by mingling them in the same firm. This is particu-

larly true where pay is by time rather than by results. Wherever workers within a single plant are paid by time, group morale requires reasonably uniform rates of pay for given job classifications. In fixing the rate the management must take into account the average performance, making allowance for the slow, the dull, and the deliberate slackers in the group. Consequently superior workers get less than they are worth and, not unnaturally, reduce their performance to the average expected of the group as a whole. This has a demoralizing effect on them, lowers the group performance, and hence forces the employer to lower still further his estimate of what the work is worth. In such a situation the real redress for the superior worker is to shift to another kind of work, perhaps a piece-rated job within the firm, or to another firm where a higher average level of performance and a higher average rate of pay prevails.

So far we have discussed apparent violations of the sound principle that money wages for similar work should be the same within a single labor market area, i.e., within the area in which a worker can change jobs without the necessity of an immediate change of residence. Competition works constantly to enforce this principle, and responsible collective bargaining can contribute, though it frequently does not, to its realization.

*Intercommunity wage differentials.* During the transition period there will be both real and equalizing wage differences in pay for similar work as between communities. Market forces will progressively narrow the real differentials and with the attainment of long-run equilibrium, they will largely disappear. The equalizing differentials, however, will remain and they will be related to size of community.

Intercommunity wage differentials are regarded as unfair by organized labor. Increasingly, collective bargaining in the United States is directed at their elimination as a violation of the equal-pay-for-equal-work principle. It is important, therefore, to understand the reasons for their existence and the constructive role they play in bringing the economy into its long-run equilibrium position.

Three forces are primarily responsible for the perpetuation of equalizing wage differentials as between communities: (1) differences in local rents; (2) differences in local taxes; and (3) differences in time and expenses of getting to and from work.

(1) *The rent factor.* In theory as well as in fact, economic activities can be classified as "tied" and "foot-free." The extractive industries (farming, mining, forestry, fishing) have to be carried

on where the natural resources exist. These are the "tied" industries. The workers employed in these industries are distributed spatially in conformity with the physical distribution of the natural resources. In general they live on the open land and in relatively small agricultural villages and mining towns.

The manufacturing and many service industries are relatively "foot-free." The firms in these industries tend to locate in centers that maximize the economies of assembling raw materials, processing them, and merchandising the finished products. Ocean and lake harbors, strategic sites on rivers, and focal rail and road crossings are the natural centers toward which the manufacturing, distributing and financing firms gravitate.

During the transition to equilibrium we can imagine capital and population flowing to these low costs points as water would flow into hollows in an uneven terrain. Diagrammatically the situation can be represented as shown in Fig. 31-1.

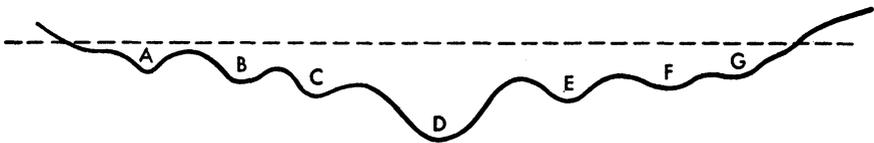


FIG. 31-1

The distance between the upper dotted line and the solid wavy line indicates the varying intensities of land use in the economy. The low points A, B, C, D, E, F, and G are urban centers. To the left of A and to the right of G we approach the marginal lands. The submarginal lands lie beyond the points where the solid line crosses and rise above the dotted line. D is the central metropolitan city. Here the competition for land is most intense. Manufacturers, financial houses, the great retail and wholesale establishments, theaters, restaurants, and the employees of these establishments bid against one another for business and residential sites. The firms that cannot use the sites in the center of the city effectively enough to pay the enormous rents prevailing there are forced toward the periphery. Use districts develop in areas of equal rents: the financial district, the retail shopping district, the wholesale district, etc. Light manufacturing can usually cling closer to the center than the heavy industries which require more level space. In general the

working population is driven to the peripheries of the city and out into the suburban fringe lands where they have to compete for dwelling space with intensive agriculture. A similar competition for land goes on in each of the smaller communities, B, C, D, and E and in the intervening rural areas.

The magnitude of rents in any locality measures the intensity of the utilization of the land. During the transition period firms originally located in D may be forced to migrate to smaller communities because the economic advantages of being in this largest consuming center are not sufficient to offset the high cost of land. Moreover, the firms that successfully meet the vigorous competition for sites in D must also pay their employees money wages high enough to enable them to buy or rent homes equal in their comforts and conveniences to those available to workers in less congested communities. In brief, urban rents, though they are the result of the commodity prices prevailing in A, B, C, D, E, F, and G, are costs to the firms and their employees. To the firms they are expenses of production; to the employees they are part of the cost of urban living. It follows that a worker in D must be paid more for work exactly similar to that performed by a worker in A, if the purchasing power of his wage is to be equal to that of the worker in A.

(2) *Local taxes and other costs.* Local taxes tend, like rents, to vary according to the size of the community. This is due to the fact that a city is, so to speak, an increasing cost enterprise. As people gather together into larger and larger agglomerations, they find it necessary to spend more and more for services that are not required in smaller communities, or which can be provided at much less expense. The costs of providing adequate space for parks, recreation grounds, and school playgrounds in a city like New York are enormous. The costs of adequate fire and police protection tend to vary with and more than in proportion to the size of the community. The danger of a fire spreading to neighboring buildings requires stricter building codes and these add to the costs of dwellings. More elaborate public health measures are needed to prevent the spread of communicable diseases. In general the per capita costs of comparable municipal services appear to vary directly with and more than in proportion to the size of communities. As a consequence money incomes have to be comparably higher if the recipients of these incomes are to be as well off, after paying local taxes, as persons living in smaller communities and doing similar work.

(3) *The portal-to-portal premium.* A third reason for inter-

community differences in money wages is that the time and cost of getting to and from work increase with community size. Firms in New York City are forced to draw their workers from an extensive commuting area. Many workers spend from two to three hours daily traveling by private car or in crowded trains and buses from their homes to their work and back. In small communities 10 to 15 minutes is apt to be more typical, and a far larger proportion of wage earners can walk to work. Competition forces firms in big cities to pay for the inconveniences as well as for the out-of-pocket expenses incurred by their employees in getting to and from work.

Thus, in our theoretical model, the principle of equal real pay for similar work requires that money wages for similar work should vary according to the size of the communities in which firms are located.

*Causes for real differentials.* During the transition period intercommunity wage differentials will be greater than can be explained by the equalization principle. Workers in some communities will not receive wages equal in purchasing power to those of workers of comparable skills in other communities. These real differentials may be due to differences in local factoral endowments. If a city has a lower level of wages than is to be accounted for by the lower cost of living in that city, this is proof of the fact that the capital available to supply the working population with adequate tools is not sufficient to put them all to work at wages comparable to those paid in other communities.

But the differentials may also be due to the fact that the firms in the community are in a monopsonistic position with respect to the local labor supply. If so, a moderate and compulsory upward adjustment of wages geared fairly closely to the prevailing situation might have a favorable employment effect.<sup>1</sup>

Regardless, however, of whether the differential is due to insufficient capital or to a monopsonistic labor market, it would be eliminated in time by intercommunity factoral movements. The availability of workers with given skills at low rates serves notice on investors, on potential businessmen, on the managers of existing businesses who are contemplating expansion programs that communities of this sort are good places in which to start new businesses. Meantime the lower rewards induce some of the young people to move to other communities where labor is relatively scarce, as evidenced by the higher real wages prevailing there. It is through this two-way movement of capital into and labor out of

<sup>1</sup> See Chapter 17, p. 211.

low real wage communities that the nation's "foot-free" industries get distributed among communities of various sizes. And in the process the real differentials are eliminated.

That some firms in low wage communities are substantially more profitable than competitive firms in other communities does not necessarily mean that they are exploiting either their workers or the consumers of their products. As long as they pay the locally prevailing wages, they have discharged their responsibility toward their employees. As long as they charge the price that clears the market, consumers have no justifiable complaint. If an efficiently managed firm in a low-wage community should sell its products at a lower price than competitors, middlemen would buy the products and ship them to other local markets where higher prices prevailed. It is better that the firm reap this middleman profit and use the proceeds to expand capacity. If it still continues to enjoy exceptional profits, consumers must look to the entry of new firms into this community for the protection of their interests.

Nor are rival firms located in large cities and forced to pay higher wages justified in claiming that they are subject to unfair competition. They forget that there are production and distribution economies which tend to vary directly with community size. The labor supply becomes more flexible as a city grows. Big cities are at nodal transportation points and hence enjoy cost advantages in the assembling of their raw materials and the marketing of their products. This transportation advantage is particularly important for plants using a wide variety of raw materials which have to be brought together from all parts of the country. Banking and credit facilities are more developed in larger cities than in smaller ones. Interest rates on short-term banking accommodations tend to vary inversely with city size. The bigger a city, the more attractive it is as an end-market; there are definite cost advantages in proximity to customers. These are some of *the economies of agglomeration* which offset the wage advantage of firms located in smaller communities. To what extent a particular plant will be able to take advantage of them depends upon the nature of its operations. There are many economic activities which can be carried on only in big cities; there are others which cannot possibly survive there if the firms have to pay the prevailing wages. In such cases relocation is in the general interest. One of the functions of management under private enterprise is to weigh the economies which a particular city offers against the social costs associated with that city. In such cases the competition is harsh but not unfair.

In summary, intercommunity wage differentials and the resulting intercommunity profit differentials constitute essential parts of the impersonal price mechanism upon which a voluntary society must rely if it is to secure the optimum spatial distribution of its population and its capital and the most effective utilization of all its resources.

**The decency minimum principle.** In 1938 the Congress of the United States passed a law which required most nonagricultural firms engaged in interstate commerce to pay a minimum wage of a specified number of cents per hour. This figure was declared to be the amount necessary to provide an unskilled worker and his family with the income necessary for health, efficiency, and general well-being. We shall examine the law in some detail in the next chapter. Here we are interested in the effects of a *uniform* and *universal* minimum wage imposed upon all firms in our model economy prior to the attainment of the long-run equilibrium position.

*The argument against a fiat minimum.* The effects of such a law would depend upon its amount. If it were set at or below the money wage of the marginal worker on marginal land, the direct effect would be nil, except to the extent that the society undertook to support a group of enforcement officers. If the uniform minimum were set above what a substantial number of workers were worth, it would cause a substantial amount of unemployment. No firm would voluntarily employ a worker whose marginal productivity fell below the legal minimum. The unemployed would now be without any income. Ethical considerations require that the productive members of the society should tax themselves and transfer to the unemployed at least as much as the minimum established by the law. But even if this were done, many of the unemployed would try to supplement their "doles" by offering to work for less than the minimum, and many individuals and firms would find it profitable to hire these "black-market" workers. Hence it would be necessary to appoint and support a large group of enforcement officers. The position of the productive members of the society would thus be worse than it would have been had they been able to devise some method of supplementing the incomes of the submarginal group and still allowed them to work and to contribute to the national product according to their abilities.

The more closely the uniform minimum wage approached the competitively determined minimum wage in the biggest city in the society, the larger would be the volume of induced unemployment in the smaller communities. The direct effect would be nil in the

central city and would reach its maximum in the rural areas. The secondary effects would, of course, be felt throughout the society.

A universal minimum wage which rose from a low to a high according to community size would be preferable to one which disregarded community-size wage differentials.

*The argument on the other side.* Before leaving this topic we should recognize a socio-economic argument in favor of the minimum wage that has some merit. The argument runs as follows: A minimum wage which is set a little above that fixed by market forces will cause very little *immediate* unemployment since employment in the short-run is determined by variable costs, not total costs. As long as a firm can recover its variable costs it will continue to operate. The first effect of the new minimum is on the profits of the firms paying sub-subsistence wages. Under the spur of losses some of the affected firms will be induced to improve their methods of production, thereby raising the marginal productivity of their unskilled workers up to the legal minimum. Firms which cannot make this adjustment will eventually be eliminated, but the transfer of the workers and the resources under their control to more able employers will increase the marginal productivity of the unskilled and hence the total national product.

The *long-run* effect of the minimum will be greater than the short-run effect but it will not be large and it will be confined to those who, for one reason or another, are unable to contribute as much to the national product as the public conscience deems it desirable that they should withdraw. A minimum wage law will lead to a clearer identification of this submarginal group and prepare the way for a more intelligent diagnosis of the causes for their low productivity. Since an accurate diagnosis is a prerequisite to a successful solution of any problem, the principle of a minimum can be defended, not as an end in itself, but as a contribution to the solution of a larger social problem.

While recognizing that there is merit in this argument, our own conclusion is that the imposition of a legal minimum wage is more likely to harm than to promote the cause of social justice. In any event this argument is not applicable to a partial minimum wage applicable to firms which in general pay higher wages than those which are exempted.

**Conclusion.** *Given the assumptions of pure competition*, attempts to apply the "ethical" principles discussed in this chapter would prevent rather than promote the attainment of long-run equilibrium. What is needed as a guide to policy making is a functional concept

of wages. A functionally correct structure of wages should promote voluntary shifts of labor and capital out of contracting industries into expanding industries, and voluntary shifts of labor out of and capital into communities in which the marginal productivity of labor is low because the local labor-capital ratio is unfavorable to labor. Within particular labor market areas the general level of wages should be such as to permit all able-bodied and willing workers to find useful employment, and the differentials between jobs requiring different skills and aptitudes should be based on the relative scarcities of the skills involved in each particular community. To the extent that the term "fair" is used, it should be used in connection with the wage levels and the skill differentials prevailing in particular communities.

Community differences in wages for comparable jobs may be equalizing or real. In neither case should these differentials be altered by edict. If they are equalizing, the issue of social justice is not involved. If they are real, they set in motion factoral movements which tend to correct them in a socially desirable manner. The burden of adaptation is divided between labor and capital, and the forces making for superurbanization are held in check.

In the next chapter we shall describe certain spatial aspects of the American economy as it is today and then examine a few of the more important federal interventions in the field of wages. We shall show that these interventions have had an unfavorable effect on the performance of the economy and upon the welfare of wage earners taken as a whole, precisely because they are based on allegedly "ethical" policy guides instead of on the concept of functionally sound rates.<sup>2</sup>

### *Questions:*

1. "In many respects the economic policies of democratic governments today are closer to those of the mercantilistic governments of the 18th century than to those of the governments of the mid-19th century."

<sup>2</sup> We are not arguing that a government which uses its influence to promote a functionally sound structure of wages is stopped from intervening in other ways with a view to reducing personal inequalities. Energetic measures aimed at the elimination of monopoly practices, whether from the side of capital or labor, tend to reduce personal inequalities in a way that improves the over-all performance of a private enterprise economy. If public opinion insists that the government guarantee some minimum income to all American families, this could be accomplished more effectively through fiscal policy than through wage manipulations. We shall come back to these methods of dealing with poverty in later chapters.

- (a) List contemporary policies which in your judgment support the correctness of the foregoing statement.
- (b) Is the statement correct with respect to national wage policies?
- (c) If not, indicate the nature of the difference and suggest reasons for the difference.
2. Assume (a) an isolated state with considerable diversities in the way of natural resources and climatic conditions and (b) a purely competitive enterprise system which has attained long-run equilibrium:
- (a) Describe the prevailing geographical pattern of wages.
- (b) Would there be any real differences in money wages for similar work? any money differences?
- (c) In what sense, if at all, could this wage pattern be called ethically sound?
- (d) In the event that public opinion disapproved of any wage inequalities in the pattern, argue for or against the proposition that arbitrary wage-setting would not be the appropriate method of correcting the situation.
3. The National Widget Corporation of America has 10 plants located in 10 communities of very different sizes. The plants have identical layouts and equipment, and each employs 250 men. The plants turn out a patented product which is sold at a uniform price throughout the United States. The Corporation is highly profitable and has been expanding its operations for some time past. Recently the Corporation recognized the United Widget Workers of America and is engaged in negotiating a collective contract. Among the union's demands are (1) the adoption of a uniform job classification schedule and the payment of equal money wages for all jobs falling in the same job classifications and (2) a 10% general increase in all wages. The two sides have agreed to submit these two issues to an impartial arbitrator. You are the arbitrator.
- State what information you would ask the two sides to furnish and indicate the line of reasoning you would follow in reaching a decision which you would regard as fair to the two parties directly concerned and in the general interest.
4. "Intercommunity wage differentials for similar work may be real or equalizing."
- (a) Explain the difference between real and equalizing differentials.
- (b) Argue for or against the expediency of trying to eliminate real differentials by government wage-setting or by collective bargaining.

## *National Wage Policy*

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THE writings of Frederick Jackson Turner<sup>1</sup> have made American students of history aware of the existence of political and historical regions in the United States, and of the way in which national legislation reflects the divergent interests of the regions. During the 1930s Professor Howard W. Odum of the University of North Carolina used a large number of social and economic indices for determining the existing regional pattern.<sup>2</sup> His regions are now used by the Office of Business Economics of the United States Department of Commerce for measuring different rates of economic change in different parts of the United States. Economic analysis cannot afford to disregard the existence of regions. Otherwise conclusions regarding the effects of public and private interventions are likely to prove faulty.

### REGIONALISM: A TOOL OF ECONOMIC ANALYSIS

From a sociological point of view a region is a continuous area inhabited by a group of people who share certain loyalties which make them feel distinct from people in other areas. In this sense most modern nations are regions. From an economic point of view a region is an area with a *factoral endowment* which differentiates it from adjacent areas. Differences in the quantities and qualities of the natural resources and in the amount of artificial capital per employed person provide the primary basis for distinguishing one economic region from another. Unless a nation is quite small it will be found to consist of a number of economic regions. Nor are economic regions respectors of national frontiers. Much of Belgium,

<sup>1</sup> Notably his article on "The Significance of the Frontier in American History." First edition printed in *Report of American Historical Association for 1893*.

<sup>2</sup> *Southern Regions of the United States*, University of North Carolina Press, Chapel Hill: 1936.

Luxemburg, Lorraine, the Rhur, and the Saar are parts of a single highly industrialized region. The per capita outputs of the four countries involved are reduced because of the political frontiers that prevent the full realization of the potentialities of this great region.

**The United States is a nation of regions.** Following Odum, the Department of Commerce recognizes seven regions in the United States: New England, the Middle East, the Southeast, the Central States, the Northwest, the Southwest and the Far West.<sup>3</sup> From time to time it rearranges national economic and social statistics with a view to showing significant relationships between these seven regions. The analysis in this and in the remaining chapters on American internal problems will be based on this breakdown of the country into regions.

These seven regions differ from one another in the proportion in which the factors of production are available and in the rates of internal growth or decline of the factors. These differences in *factor proportionalities* result in differences in per capita outputs, per capita incomes, and in the distribution of regional incomes among factor owners. In other words, regional differences in factoral endowments produce regional differences in wages, interest, rents, and profits. And these differences lead to regional specialization and interregional trade, much of which is based on the principle of comparative advantage.<sup>4</sup> From a strictly technical point of view most of the goods and services which move between regions on the basis of differences in expenses of production could be produced in all of the regions. In fact, however, the price mechanism tends to assign the task of supplying the entire national market for particular goods and services to firms located in one or another of the regions, or to divide the task between two or three of them. In view of the alternative uses to which the resources of the seven regions can be put it is not economical for the people in each region to try to produce everything they could produce if they chose to disregard opportunity costs. By specializing and trading, regional per capita outputs and per capita real incomes are much higher than they would be if each region aimed at self-sufficiency.

<sup>3</sup> The most recent compilation of regional data based on the Odum classification are to be found in *Regional Trends in the United States*, issued by the Office of Business Economics of the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce, Govt. Printing Office, Washington: 1951.

During the 1930s the U. S. National Resources Committee and its successor, the National Resources Planning Board published a number of valuable regional analyses, notably *Regional Factors in National Planning* (1935) and *The Problems of a Changing Population* (1938).

<sup>4</sup> See Chapter 25, especially pp. 327 through 331.

**A statistical measure of regional disparities.** Per capita incomes, despite their admitted shortcomings,<sup>5</sup> when gathered on a regional basis, provide us with the best single evidence of the relative well being of the people in different parts of the United States. The figures in Table 25-1 (p. 329) show the extent of the disparity of regional per capita incomes in the United States in 1929 and 1947. As was pointed out there in the discussion of these figures, the poorer regions have been gaining steadily on the wealthier regions, in terms of absolute rates of per capita income growth. Yet, as was also pointed out there, because of the low base from which the poorer regions started, the relative improvement has not prevented a slight widening of the absolute income gap separating the poorest from the richest regions. Yet, if the processes at work over the past 20 years continue, the disparity may very well disappear in the next 20 to 30 years.

**The scope and purpose of our inquiry.** In this chapter we are concerned with identifying the dynamic forces that would appear to be responsible for bringing factorial rewards in different parts of the country closer together. What we want to know is whether the equalizing processes at work are the result of the operation of natural market forces or of governmental interventions, or a combination of the two? There are two other possibilities to be considered. One is that market forces operated to widen the gap while governmental interventions succeeded in overcoming this effect. The other is that market forces would have narrowed the gap still more had it not been for governmental interventions.

It is our purpose in this chapter to explain (1) why incomes in the Southeast are still the lowest in the country; (2) how market forces operate powerfully to lift these incomes closer to the national average; (3) how the relative gain of the Southeast affects the well being of the people in the wealthier regions; and (4) why minority groups in those regions would benefit, in the short run, by federal interventions that would slow down or halt entirely the processes by which the people of the Southeast are digging out from their present relative poverty. At the end of this chapter we shall examine the wage interventions of the Federal Government; in the next chapter the regional effects of collective bargaining will be considered. We want to know whether these interventions have been responsible for the tremendous relative gains registered by the poorer regions or whether they have prevented the gains from being as great as they might otherwise have been. We shall see that

<sup>5</sup> See Chapter 19, pp. 226 ff.

the arguments advanced in support of the interventions are primarily the ethical ones examined in the previous chapter. It will be our assumption that the interventions represent neither good ethics nor good economics unless it can be shown that they contribute to regional equalization. We shall use the Southeast as our poor region.

### WHY IS THE SOUTH POOR? <sup>6</sup>

There is, of course, no single cause for the South's poverty, and no single, simple remedy. Five causes, however, can be identified as being of particular importance.

1. **Agrarian overemphasis.** First and foremost is the fact that the Southeast is overspecialized. No other great and populous region has so large a proportion of its working force directly engaged in agriculture. In 1940 for example, 20% of all those employed in the Southeast were farm proprietors. In New England and the Middle Atlantic states the corresponding percentages were 2 and 3. In the Far West it was 7. The productivity of Southern man power will be increased if several million croppers, tenants, and small farmers operating marginal or submarginal farms can find useful off-farm employment.<sup>7</sup>

2. **Poor and eroded soils.** The soils of the South are, on the whole, mediocre. A soil survey made by the U. S. Department of Agriculture in the mid-thirties registered the fact that there was more first-grade land in the single state of Iowa than in the eleven Southeastern states. Moreover these Southern lands, because of terrain, climate, and freedom from the glaciers of prehistoric times, are older, more leached out, and more erosive than those further north. As a result of a prolonged period of intensive cultivation to inter-tilled crops, they are more seriously damaged than those in any other part of the country. Far-reaching changes in cultivation involving a great expansion of pasture and forest will be required to restore the lands in large areas of the South. Such changes in cultivation will require a substantial reduction in the man power now

<sup>6</sup> The answer to this question is taken with minor modifications from my article "The Wage Problem in the New South" in *The Georgia Review* (1947) and this in turn was based on a larger study, *Planning for the South: an Inquiry into the Economics of Regionalism*, Vanderbilt University Press, Nashville: 1943, both by J. V. Van Sickle.

<sup>7</sup> In the world at large and within the United States we find an invariable inverse relationship between the agricultural emphasis and levels of real incomes. A pre-war ranking of the nations on the basis of levels of living would show that well-being rose as the proportion of the gainfully employed in agriculture declined. The same holds for the United States. A ranking on the basis of state per capita incomes, as calculated annually by the U. S. Department of Commerce, reveals the same relationship.

on farms. This shift-over will depend upon the development of suitable nonfarm opportunities within or without the South.

3. **A prolific population.** A third complication arises from the fact that the Southern farm population is exceptionally prolific. In the absence of migration Southern farm population would double every twenty-eight years if its 1935-40 reproduction rate continued. In all parts of the country farm families more than reproduce themselves, but in the other populous regions the proportion of the farm population is too small to offset the low birth rates in urban families. There is thus a strong tendency for population to pile up on Southern farms despite the fact that the rebuilding of the South's farm lands calls for an early and substantial reduction of the present farm population.

4. **"King Cotton."** Another force deserves brief mention here. As long as cotton was king in an expanding world with an almost insatiable demand for cotton to clothe a rapidly expanding population, and as long as land was plentiful and cheap, the concentration on cotton was in accord with the principle of comparative advantage. But as cotton cultivation developed in other countries and the lands of the South wore out, a shift of emphasis was called for. Had it not been for the Civil War, diversification including industrialization might have gotten started much earlier than it actually did. But defeat left the South bankrupt and Reconstruction left it embittered, humiliated, and distrustful of the Northern industrialism which had contributed to its defeat. Consequently the agrarian emphasis persisted well beyond the time when it represented the best use of the region's resources. Meantime the same war had encouraged industrialization in the North. By 1880 the industrial pattern had taken shape that was to prevail for the next two generations. Once established, the pattern was very hard to break. The agrarian South could not, under the Constitution, use tariffs to protect any infant industries that might get started, since their competitors would be plants located within the Union. If it were to escape from its agrarian specialization it would have to do it without benefit of protectionism—something no independent agrarian country had ever attempted to do.

5. **Lack of capital and know-how.** Since 1900 there has been a notable change in attitude in the South toward industrialization. In no other region is it more ardently courted, but the lack of capital and the lack of know-how still handicap the region. Freight rates, thin local markets, etc., may all contribute but are probably subsidiary. During the 1920s and 1930s agricultural prices fell rela-

tive to nonagricultural prices. This worsened the region's terms of trade. Perhaps this should be listed as a sixth cause for the relative poverty of the Southeast.

### WHAT IS THE SOLUTION?

Conditions in the United States would be much more wholesome economically, socially, and politically if the productivity of workers of equal skill in all occupations and in all parts of the country were equal and if the rates of pay for comparable jobs were also equal. But how is this to be brought about?

**A listing of alternatives.** It can be said with confidence that the bringing up of the *earned*<sup>8</sup> incomes of the people of the Southeast calls for

- (a) an enormous exodus of farm folk from the South (migration solution);
- (b) an enormous internal shift from farm to nonfarm pursuits involving a substantial investment of new capital (investment solution);
- (c) some combination of the two (which may be called a balanced solution).

**The problem choice.** At this point a value judgment is involved. To us, the balanced solution is the best with the emphasis on the in-movement of new capital. *It is easier and more humane to encourage large capital movements than massive movements of people.*

What is needed is a steady broadening and diversifying of non-farm opportunities in the South, a lowering of the very high birth rate of the Southern farm population, and a steady reduction in the human outflow until a new equilibrium is reached. At that time there would still be interregional movements but, by and large, the South would then attract as many ambitious youngsters as it lost. As long as men differ in talents and interests, migration will contribute to national well being. Meantime an enormous influx of new capital is urgently required.

The South has been attracting this capital in the shape of manufacturing plants scattered far and wide throughout the region. Small towns are being revitalized. The super-metropolitanism so

<sup>8</sup> The word "earned" in the statement above is italicized to bring out the fact that the solution should aim at the regional equalization of factorial rewards and not at the regional equalization of personal incomes through federal grants to the poorer states.

characteristic of the Northeast is conspicuously absent. Growing urban markets are assisting Southern farmers to diversify and re-vamp their one-crop economies. The urban way of life is spreading the small family pattern throughout the rural South. The direction and the rate of change have been encouraging.

### **FREE ENTERPRISE FAVORS A BALANCED SOLUTION**

A dictator could reshape the economic map in short order. He could move Southerners out or move capital in at his pleasure. How can it be done under the limitations of a predominantly free enterprise system?

The answer, of course, is to be found in the simple words "adequate incentives." These the private enterprise system provides. In addition the system automatically works in favor of a balanced solution.

**The role of free prices.** The free enterprise system responds to incentives as registered in free prices. Let us look for a moment at the structure of factorial rewards that tends to emerge in the agrarian South and the industrial North if competitive market forces are allowed to operate.

Under reasonably competitive conditions interest or the price paid for investment funds will tend to be somewhat higher in the South than in the wealthier parts of the country for the simple reason that local savings are scarce. Since the South needs extra regional capital it has to pay a premium, and local savings also get the premium.

Land is relatively cheap in the South; hence industrial land costs are somewhat lower, but over the life of a plant this economy is not of great importance. Local taxes are frequently less than in the North, but in return plants get less community services. Health and educational services in particular suffer, and these deficiencies reduce the effectiveness of labor. Therefore, the tax advantage is probably small. Distance from the dense high-income end-markets of the North and East is a handicap.

Wages represent the lion's share of manufacturing costs, and it is there that Southern industry has an advantage. The advantage is due to the region's superabundance of unskilled and semi-skilled labor. Most of this type of labor finds employment on farms where labor productivity is relatively low. Consequently Southern industry can tap almost unlimited supplies of unskilled labor as long as it is prepared to pay the premium needed to induce men and women to shift from farm to factory. Northern plants have also to

look to this labor reservoir, but, being closer to the supply, Southern plants are not obliged to pay as much as their distant competitors.

The rates for many categories of skilled labor and the pay of many salaried groups, on the other hand, are actually higher in the South than in older industrialized areas. And again the reason is obvious. The Southeast relative to the older and more industrialized regions is heavily overstaffed with unskilled and semi-skilled labor.<sup>9</sup> Here is the fundamental reason why the foundation on which the Southern wage structure rests—the unskilled labor rate—must be so much lower there than in other parts of the country, as long as rewards rest on productivity and not on formula.

The relatively low wages prevailing in the South are not the cause of the relative poverty of the region. On the contrary they are the consequence of the relative overemphasis on agriculture.

**The function of regional wage differentials.** The relatively low wage rates for unskilled and semi-skilled labor tend to attract to the South industries that can use this type of labor effectively. The differential enables firms to offset higher interest costs, the higher wages for skilled and administrative workers, and distance from the great centers of consumption. Many textile firms went South on this basis. The production of work garments is moving South for the same reason. In general, mass consumption goods are favored. They have to be priced very low in order to reach the low-income groups in the South. Any large compulsory increase in unskilled labor rates in these industries in the South cuts down their profits, slows down their expansion, and hence reduces the number of additional jobs they can offer. The result is more competition for jobs in the unprotected fields, and lower money wages in the very fields where rates of pay are the most inadequate.

The same geographical structure of prices tends to force the North and East to specialize in the industries that make relatively sparing use of unskilled labor—i.e., in machinery, equipment, and finer grades of consumer goods.

Industrial expansion in the South, raising money incomes there as

<sup>9</sup> In 1940, for example, there were 100 skilled workers in New England to every 114 unskilled workers, whereas in the Southeast there were 412.5 unskilled workers to every 100 skilled workers. Furthermore, the proportion of the working population classified as farm proprietors was 10 times as high in the Southeast as in New England, and a considerably larger proportion of this group in the Southeast are potential extrants into the unskilled labor market in that region than is the case in New England. These ratios were calculated by McGraw-Hill Economics Department and published in *Business Week* during 1947.

a result of the development of new industries, the pulling up of rewards from the bottom, as surplus agricultural labor is drawn into industrial production there, all this creates an increasing demand in the South for the specialized products of the North.

In brief, market forces are changing the proportionality of the factors in the several regions, and, as a result, per capita incomes in all of the regions are being brought closer and closer to the national average. The United States Department of Commerce study of *Regional Trends in the United States* characterized the developments of the 20-year period 1929-49 as "little short of spectacular." It went on to point out that "the trend of the period constituted in effect a process of economic growth in which the disparities in the economic status of the several regions were markedly diminished." It found that "a prime factor" in this process "was the freedom with which labor and new capital flowed across state lines seeking their most advantageous use in resource or market development."<sup>10</sup> It is thus apparent that, given freedom of interstate trade, a continued reduction of regional net fertility differentials, and reasonable labor mobility, private capitalism is capable of eliminating gross national differences in levels of living within the United States.

But will freedom of interstate trade be permitted to operate in the future as freely as in the past? The answer to this question is to be sought in an understanding of the regional repercussions of the "spectacular" developments of the recent past.

### REGIONAL REACTIONS

On balance there has been a net gain from these diverse regional developments. But the adaptations involved were frequently painful and sometimes fatal to particular enterprises in the various regions. Resources had to be rearranged, withdrawn from fields in which they had lost their earlier comparative advantage and reinvested in more profitable lines. Though consumers everywhere gained, as did most firms in the older industrial regions, the owners of specialized "sunk" capital and older and specialized workers attached to these industries suffered.

As long as the American economy as a whole was growing rapidly, the pains of adaptation were not too serious. Moreover, the benefits were so widespread and so obvious that there was little popular demand for interferences with the adaptive processes. But with the coming of The Great Depression the over-all growth of the American economy ceased, and for several years there was an

<sup>10</sup> *Ibid.*, p. 13.

absolute contraction. Firms everywhere sought to make economies and particularly in their wage costs. In the established industrial regions these latter costs proved more difficult to bring down than was the case in the Old South. There were several reasons for this. One was the higher degree of trade unionism. The unions held up wages at the expense of employment. Many of those who lost their jobs had come from the farms of the South, and they now returned to their old homes to add themselves to the surpluses that were rapidly building up there due to the cessation of emigration. As a result there developed a tremendous competition for jobs in the South, and rates broke there much more than in the North. This widened North-South wage differentials and greatly increased the South's power to attract extraregional investment capital. While the rest of the country stood still, industrial expansion continued in the South. Instead of enjoying, as in the past, a somewhat more than proportionate share of the country's general industrial growth, it now appeared to be gaining at the expense of enterprise and employment in the other regions. It is not surprising that labor and capital outside of the Old South regarded this development with misgivings and that the charge should be made that Southern business was exploiting Southern labor.

It is against this background that we shall examine the wage policies of the federal government and recent developments in collective bargaining. The measures we shall be concerned with are (1) the federal government's wage policy with respect to its own employees; (2) its policy with respect to firms from which it buys goods and services; (3) its policy with respect to firms engaged in interstate commerce; and (4) the policies of national unions.

### **THE FEDERAL GOVERNMENT'S OWN WAGE POLICY**

The federal government is the largest employer of labor in the United States. As of late 1952 it had on its civilian payroll some 2 million persons and disbursed in wages and salaries more than \$8 billion annually. Less than 10% of these civilian employees worked in Washington; the rest were scattered throughout the country, in cities and towns ranging in size from metropolitan New York City to tiny hamlets of a few hundred inhabitants. In most, if not in all states, federal employees outnumber state employees.

This dominant position is a matter of very recent origin. It is the result of the "peaceful revolution" which began in 1933, and which has shifted more and more functions to Washington. In part, this

expansion of federal functions represents a delayed recognition of the fact that government has a large role to play in creating the kind of environment in which a private enterprise system can perform responsibly.<sup>11</sup>

Wages and salaries in the federal services are fixed on the basis of an elaborate classification which takes account of such things as skills, responsibilities, and seniority. In general, rates of pay for similar work in the different services are equal. Conspicuously absent, however, are the regional and locality differentials so characteristic of the private sector of the economy. A postman of a given grade with a given number of years of service gets the same rate of pay, whether he works in Meridian, Mississippi, or Meriden, Connecticut, or Chicago, Illinois. A federal judge in a rural district in the South, with a light case load and plenty of time for hunting and fishing and the maintenance of a lucrative private business, gets the same salary as a judge of equal rank in New York City or Detroit, who has to devote his full time to the work of his office. And so it goes through the whole range of civil service jobs.

Not only have rates for given job classifications long been uniform throughout the country, but in general they have been higher than the rates paid by state and local governments and by private enterprise to employees doing similar work.<sup>12</sup>

This policy has a number of awkward consequences. (1) In the first place it militates against an efficient personnel promotion program. It is not easy to get federal employees to move from small communities to larger communities on the basis of the small pro-

<sup>11</sup> Whether this expansion has in fact strengthened or weakened the system would appear to depend on the answers to these four questions:

(1) Have the public interventions been of the sort called for by the *laissez-faire* analysis? (To avoid misunderstanding the reader should recall the meaning we have attached to the term *laissez-faire analysis*. It is a method of reasoning which tells us not only what the State should not do but also what it should do to realize "the assumptions" of *laissez-faire*. See Chapter 20, pp. 242 ff.

(2) Have they been assigned to the appropriate levels of government?

(3) Have the methods of raising the revenues needed to defray the costs of administering the public interventions respected or disregarded the incentives upon which a private enterprise system depend?

(4) Does government accept the level of rewards prevailing in the private competitive sector of the economy when it buys resources and hires labor?

We shall seek answers to the first three questions in later chapters. Our concern here is with the fourth question and only as it relates to the federal government, since in general the states and their political subdivisions are forced to accept the verdict of the market.

<sup>12</sup> For the supporting evidence see "Federal Spending Facts," The Council of State Chambers of Commerce, *Bulletin No. 87*, July 30, 1951.

motions which would suffice if, as is the case in most European countries, the wage and salary classification schedules recognized size-of-community differentials. (2) A second consequence of the uniformity principle is the unnecessary increase in total federal payroll costs and hence in the level of federal taxes. (3) Another and more subtle consequence is to be found in the field of attitudes. In most communities a stenographer in private employment finds it difficult to understand why she should get less than her best friend who holds a federal job. The situation is particularly acute in smaller communities. (4) A further consequence of the federal government's policy is that it creates a precedent which reduces the ability of private employers to oppose the extension of the uniformity principle in the private sector of the economy.

### THE WALSH-HEALEY ACT <sup>13</sup>

In 1935 the Congress of the United States passed the Public Contracts Act, better known as the Walsh-Healey Act. This act vests in the Secretary of Labor the power to establish wages, hours, and working conditions for employees engaged on federal contracts involving more than \$10,000.00. The Congress held that the federal government should not only be a model employer itself, but should withhold its patronage from employers whose rates of pay and employment policies fail to measure up to a federally imposed standard.

The pertinent paragraph of the law reads as follows:

Not less than the minimum wages as determined by the Secretary of Labor to be the prevailing minimum wages for persons employed on similar work or in the particular or similar industries or groups of industries currently operating in the locality in which the materials, supplies, articles or equipment are to be manufactured or finished under said contract.

Despite statements of the sponsors of the Act that the "prevailing minimum" was to be interpreted in the "locality" sense, i.e., as equal to that prevailing for similar jobs in the community *where the work was actually performed*, the Secretary of Labor has successfully imposed a single uniform rate in all but a handful of industries. This rate is higher than that required by competitive conditions in

<sup>13</sup> More detailed accounts of this act are to be found in Reilly, Haslam and Modley, "The Threat of the Walsh-Healey Act," *Harvard Business Review*, January, 1951, and John V. Van Sickle, "The Walsh-Healey Public Contracts Act," *National Economic Problem Series*, No. 445, American Enterprise Association, New York: 1952.

hundreds of smaller communities, and usually substantially higher than that imposed on firms engaged in interstate commerce.<sup>14</sup>

If our analysis of the role of industrial and locality wage differentials is correct, it is clear that this Act, as presently administered, is inconsistent with the operating requirements of the kind of enterprise system it is allegedly designed to improve. In short, it represents a Congressional expression of distrust with the operation of market forces.

### THE FAIR LABOR STANDARDS ACT

Three years after the passage of the Walsh-Healey Act the Congress passed the Fair Labor Standards Act. This measure empowers the federal government to prohibit the sale in interstate markets of goods and services produced by firms paying less than a stipulated minimum wage expressed in cents per hour and declared to be that required to provide an unskilled worker with the income necessary to "health, efficiency, and general well being." It further requires the payment of time and one-half on hours worked in excess of 40 per week, prohibits the employment of children under 16, and establishes certain minimum standards regarding working conditions.<sup>15</sup> Agricultural workers, domestic servants, and firms not engaged in interstate commerce are specifically excluded from the Act.

The original rate was 25 cents an hour with provision for bringing the rate up to 40 cents an hour, within a seven-year period, industry by industry, on the basis of recommendations of industry committees appointed by the Secretary of Labor. During the transition period size-of-city differentials could be authorized by the

<sup>14</sup> The Secretary appears to have relied upon the following complicated interpretation supplied by one of his legal experts:

The prevailing minimum wages for persons employed on similar work is an alternative which stands on its own feet, and even though the term "similar work" is not followed by a comma in the text, the word "or" following the term nevertheless acts as a complete disjunctive; and, because of change in the verbal sequence from a substantive verb ("similar work") to pure substantives ("industries") after the last pure substantive ("groups of industries") cannot strike back to modify "similar work." The present participle ("operating"), on the other hand, readily reaches through "groups of industries" to "similar industries" and to the particular industry because there is no barrier to halt it. Its influence cannot pass beyond this point, however, because the change in the grammatical structure obstructs it.

<sup>15</sup> For reasons not clear to the writers a girl between the ages of 16 and 18 may work for a firm engaged in interstate commerce, provided the firm is not also engaged on a Walsh-Healey contract. In that event she must be 18 years old. There are also minor but vexatious differences between the two laws with respect to over-time, safety and health provisions, and the kind of records firms must keep and the period of time they must be preserved for federal inspection officers.

industry committees under narrowly defined conditions. Regional differentials were expressly prohibited. In 1949 the minimum was raised to 75 cents an hour, coverage was broadened somewhat, and the provisions for locality differentials was eliminated. The Act lays down a single minimum wage figure which is uniform throughout the United States but applicable to only a minority of firms and precisely to that minority which already pay the highest wages in the states in which they are located.

The preamble of the Act declares that low wages and long hours affect the health, efficiency, and general well being of employees, constitute unfair methods of competition, cause labor disputes, strikes, and interference with the orderly and fair marketing of goods in *interstate commerce*.<sup>16</sup>

The case for and against a universal and uniform minimum wage was discussed in the preceding chapter. We indicated there that a *universal* minimum wage is not an appropriate device for raising the real wages of unskilled workers. Does a *partial* minimum wage, one which applies to only a fraction of the labor force, deserve a more favorable verdict?

We can imagine a partial minimum wage law based on regional and size of community wage differentials which would be reasonably innocuous.<sup>17</sup> But the law here under examination definitely rejects this principle. Regional differentials are explicitly prohibited, and those charged with its administration consistently refused, even during the seven-year transition period, to approve of size-of-community differentials. The law imposes a single uniform rate upon all firms subject to its jurisdiction. Now the setting of a single uniform rate must necessarily be reached by a political compromise between the representatives of the large cities and the representatives of the smaller communities and the rural areas. The former cannot be expected to go back home and say that they have voted for a rate that has no relevance whatever to the competitively determined minimum actually prevailing in their constituencies. The end-result is a figure that affects a small fringe of employers in high

<sup>16</sup> Thus a small lumber mill deliberately selling entirely within a state and employing local farm help was held to be liable if "the employer intends, hopes, or has reason to believe that his product will eventually move in interstate commerce." In Meridian, Mississippi, in the early 1940s there were only two office buildings with elevators. The elevator operator in one of these buildings was covered by the Act because there was a lawyer on the top floor who had clients who were engaged in interstate commerce. The operator of the elevator in the other building was not covered.

<sup>17</sup> Such differentials were recognized in the PWA program of the early 1930s.

wage areas and is considerably higher than firms located in small communities are required to pay for comparable services. As a consequence these smaller communities become less attractive as locations for firms engaged in interstate commerce. The mobility of capital is reduced. An unnecessarily large out-movement of population from low-wage and low-levels-of-living areas must occur if the sound principle of equal real pay for comparable work is to be realized.<sup>18</sup>

To sum up, our verdict regarding the Fair Labor Standards Act is the same as our verdict regarding the Walsh-Healey Act. It is inconsistent with the operating requirements of the very kind of economic system it is supposed to foster. Doubtless the majority of its supporters sincerely believe that it promotes social justice. In fact, however, it serves to protect the wealthy regions against the poor regions, and higher paid workers against lower paid workers, by depriving the latter of the possibility of attracting the capital needed to make them more productive in the localities in which they happen to be born and to which they may be attached by strong and respectable sentiments. Instead of making capital more mobile than labor, this law requires of workers a degree of mobility that is economically and socially undesirable.

### *Questions:*

1. Define the concept "proportionality of factors" and use it to explain why per capita incomes in the Southeast are the lowest in the United States.
2. Identify (a) what is called in the text "a balanced solution" of the low-income problem of the South; (b) the value judgment that lies behind it; and (c) set forth the reasoning in support of the assertion that market forces tend to promote a "balanced solution."
3. Defend or rebut the following propositions:
  - (a) "The federal government's own wage policy is inconsistent with the operating requirements of a competitive market economy."
  - (b) "The Walsh-Healey Act represents a Congressional expression of distrust with the operation of market forces."
  - (c) "The Fair Labor Standards Act in effect constitutes a form of protective tariff in favor of the wealthy regions and at the expense of the poorer regions."

<sup>18</sup> The factual evidence to support this deductive reasoning will be found in John V. Van Sickle's "Geographical Aspects of a Minimum Wage," *Harvard Business Review*, Spring, 1946.

4. "The remarkable industrial development of the Southeast since the passage of the Walsh-Healey Act, the Fair Labor Standards Act, and the spread of unionism proves that these measures have increased purchasing power there and have therefore helped and not hurt that region." Argue for or against the economic soundness of this statement.

## Collective Bargaining

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UNDER trade unionism the wage contract is the result of a collective contract between an employer and a group of workers. The opposite of collective bargaining is individual bargaining. Pure competition assumes individual bargaining. In fact, under pure competition there could be no bargaining by firms or workers since any other rate than the prevailing rate would be contrary to the interests of both parties. The problem that interests us here is the effect of collective bargaining on what we have called effective competition, or workable competition. We assume here that the people of the United States wish to maintain an effectively competitive enterprise system. Is collective bargaining consistent with this kind of an economic system?

**Some definitions.** Collective bargaining may be done for all of the employees of a plant by a single union, or there may be several unions, each catering to a specialized group of workers. The first type of bargaining agency is usually called an industrial union, the second a craft union. A union is *closed* or *open*, according as it restricts membership or admits all qualified workers. A union with unreasonably high admission dues stands somewhere between a closed and an open union. Where a union requires prior membership as a condition of employment in a particular plant we have what is known as a *closed shop*. Where the management may hire anyone it pleases, provided the worker agrees to join the union within a specified period of time, we have a *union shop* and, by definition, the union itself is "open." There is fairly general agreement that a closed shop with a closed union represents a form of labor monopoly that is inconsistent with the requirements of a competitive enterprise system. The closed shop with an open union possesses much less monopoly power, provided its terms of admis-

sion are reasonable.<sup>1</sup> Local unions, whether organized by crafts or by industries, belong to national unions. The amount of local autonomy enjoyed by the locals varies greatly from national union to national union in the United States. Most but not all of the great national unions are in turn affiliated with either the American Federation of Labor (AFL) or the Congress of Industrial Organizations (CIO).

There is *company-wide bargaining* when a single national union represents and bargains for all or most of the men in all of the plants belonging to a single firm. When a national union represents and bargains for the workers in all or most of the firms belonging to a single industry, we have *industry-wide bargaining*. The negotiations may or may not be carried on simultaneously with representatives of all the firms. Identical demands may be made against all the firms, or less onerous terms may be agreed to for some in recognition of differences in capacity to pay. Recently the term *pattern bargaining* has come into use in connection with the negotiations of a single union with one of a number of firms with which it has contracts. Having reached agreement with this firm, the union then makes comparable demands on the others. The tendency under company-wide and industry-wide bargaining is toward greater wage uniformity in all of the plants involved in the collective contract.

**The legal evolution of unionism.** Until about one hundred years ago collective bargaining was against the law in all of the American states. It was treated as "collusion" or conspiracy. Federal law was silent on this issue, which was regarded as exclusively a matter of state concern. First Massachusetts, and then other states, permitted workers to form unions, provided they refrained from the use of force. During this period collective bargaining enjoyed the status of a *liberty*. Men were free to join a union or to refrain, and managements were equally free to recognize or not to recognize the union. State courts were generous in the use of the injunction whenever the strategy of a union was alleged by managements to threaten property losses for which there could be no adequate recovery through a suit for civil damages against the union or the individual members. In 1890 both labor and management were subjected to the anti-monopoly and restraint-of-trade provisions of the Sherman Anti-Trust Act. Thereafter, the federal courts were

<sup>1</sup> The power to exact an economically high wage reduces the profitability of hiring extra workers; it thus restricts the opportunity of less-well-paid workers to better their positions in much the same way as does a restriction on membership.

fairly free in issuing injunctions against unions when their bargaining tactics interfered with interstate commerce or appeared to be aimed at obtaining a labor monopoly. At the insistence of organized labor a provision was inserted into a 1914 amendment of the Sherman Act (the Clayton Act) which declared that "labor was not a commodity." This declaration had little effect, however, on the federal courts.

In 1932, the Congress passed the *Norris-LaGuardia Act* which severely limited the right of managements to appeal to the federal courts for injunctions against anticipated damages. Three years later, with the passage of the National Labor Relations Act, popularly known as the Wagner Act, the Congress formally recognized unionism as a *right*. This was a far-reaching change. Henceforth managements were required to bargain collectively whenever the majority of their employees, in properly conducted elections, voted in favor of this method of negotiating. The law further listed a number of management practices as unfair and hence illegal. In 1947 the law was amended<sup>2</sup> to include in its list of prohibitions a number of union practices. Among other things the closed shop was prohibited. A move to prohibit industry-wide collective bargaining was narrowly defeated. The right of appeal to the federal courts was restored to a limited degree. The federal government, but not a private firm, could seek a 75-day injunction against a union in the event that a strike was held by the President "to imperil the national health or safety." If a peaceful solution was not reached during this cooling-off period, the union regained the right to use the weapon of the strike and the President was required to submit to the Congress a comprehensive report and recommendations for appropriate action.

**The growth of trade unionism.** During the 20 years following the passage of the *Norris-LaGuardia Act* the growth in the number of union-dues-paying workers employed under collective contracts has been phenomenal. In 1932, which marked the low ebb of union power, membership stood at less than 2 million; at the end of 1951 between 15-16 millions, or close to one-third of the nonagricultural labor force, were enrolled in unions. The independent union confined to a single plant or company has practically disappeared from the scene. The nonunion shop is now the exception rather than the rule in larger business enterprises. Most of the mass production industries, the railroads, the trucking industry, the coal mines, print-

<sup>2</sup> The Labor Management Relations Act, better known as the Taft-Hartley Act.

ing, the communication services, and, in addition, textiles, the garment and building trades, and the larger commercial establishments are now organized. Only in the Old South and in quite small communities in other parts of the country is unionism still the exception.

The funds in union treasuries are substantial. In 1951 the national unions and the American Federation of Labor and the Congress of Industrial Organization were reported to control more than two billion dollars in assets.<sup>3</sup> These assets are over and above the substantial resources under the control of the thousands of locals. Through special assessment large additional sums can be raised at short notice.

**The case for collective bargaining.** Under individual bargaining the ordinary worker has to take or leave what the employer offers. To the employer it is usually a matter of very little moment whether a particular worker agrees or refuses to work for him on the terms he is willing to offer. To the worker, who seldom has much waiting power, a job means bread and butter and a roof over his head. Under collective bargaining employers as well as workers are confronted with an all-or-nothing choice, and the funds in the union treasury provide the members with a waiting power which may equal or exceed that of the employer.

The alleged helplessness of the individual worker in his bargaining with a large employer explains the widespread approval of unionism in the United States today. It is supposed to equalize the bargaining power of the two parties. In fact, however, workers as a whole are in a very good bargaining position with respect to wages in a society in which the rate of capital formation exceeds the rate of population growth. This has been the case with only occasional interruptions in the United States from the beginning of our history. The great wage gains of American labor are due to this fact and not to collective bargaining. The case for collective bargaining cannot be made on this score.

*Little historical evidence that unions have increased wages.* Between 1849 and 1939 hourly real wages in American manufacturing plants rose more than fourfold. (During this period the value of the capital behind each worker increased ninefold, from \$557 to \$5,080.) Labor's share of the gross value of output, as far back as the records go, fluctuated within very narrow limits. Between 1900 and 1940 it rose once to 17.9 percent and fell three times to 16 per-

<sup>3</sup> Victor Riesel, *Indianapolis Star*, December 21, 1951. Riesel is a newspaper man who specializes on labor issues and appears to enjoy the confidence of organized labor.

cent, and once to 15.6 percent. At the beginning of the period it was 17.2 percent; at the end it was down to 16 percent.<sup>4</sup> There was very little collective bargaining in 1900 while it was very widespread in 1939. Working with other figures, Professor Sumner Slichter of Harvard University concluded that, during the period 1880 to 1930, labor's real wage rose more rapidly in periods when organization was weak than when it was strong.<sup>5</sup> Senator and former Professor Paul H. Douglas in his study of wages in the United States concluded that "when labor organization becomes effective, it yields very appreciable results in its early stages but that thereafter the rate of gain enjoyed by its members tends to slow down to a speed which does not appreciably exceed that of the nonunion industries."<sup>6</sup>

That unionism has not appreciably increased labor's share in the national income does not prove that it serves no useful purpose. It does prove, however, that the case must be made on other grounds. Such a case, in our opinion, can be made, but on social and psychological rather than economic grounds. Unions are very human associations through which millions of individuals, uprooted from the land, herded together in the anonymous barracks of great cities, seek to regain the sense of personal status, and thereby escape from the disintegrating feeling of being mere interchangeable cogs in a vast and impersonal machine. The cry "our labor is not a commodity" uses the language of the market place to assert the dignity of the human personality. Moreover, the union, at its best, introduces "due process" into labor-management relations. The scope for arbitrary and capricious action is narrowed. Those clothed with the responsibility of hiring, firing, promoting, and disciplining the work force have to follow mutually agreed upon procedures laid down in written contracts. Enlightened business management has discovered that it can handle its personnel problems much better through the representatives of the men, rather than through individual dealings. These representatives must have the confidence of the men, which means that they must be freely chosen by the workers themselves. In such an atmosphere of mutual confidence management can and has tapped unexpected resources in the way

<sup>4</sup> Willford I. King, "Raising the Working Man's Scale of Living," Committee for Constitutional Government, Inc., New York: 1945.

<sup>5</sup> Slichter's position appears in a dissenting footnote in *Trends in Collective Bargaining*, Twentieth Century Fund Study, 1945, p. 218.

<sup>6</sup> *Real Wages in the United States 1890 to 1926*, Houghton Mifflin & Co., Boston: 1930, p. 562.

of loyalty and of productive ideas.<sup>7</sup> In such an environment, it is safe to predict, the vast majority of the workers will want to belong to the union.

**The need for restraints.** The power of organized labor in politics and in certain fields is now such that Professor Sumner Slichter of Harvard University has recently characterized the American economy as "laboristic"<sup>8</sup> in the sense that the balance of private power has shifted from the suppliers of capital to those who control the supply of labor.

The crippling strikes which have repeatedly brought the entire economic life of the nation perilously close to a standstill provide abundant evidence of the need for legal restraints on union power. The industries that were closed down were not the low-paying ones, so that it cannot be argued that they were "exploiting" their workers. They were already paying wages which would have enabled them to replace the strikers and to continue operations had it not been for the intimidating picket lines thrown round their plants and their insulation from the protecting "injunction" power of the courts. Nor is there any evidence that they were exploiting the consumer. The competition of substitutes and the march of technological progress drastically limit control of the market by business. Certainly American business does not now possess, and it is doubtful whether it ever did possess, the crippling power now wielded by some of our great unions.

**Suggested restraints.** The propriety of the trade union is acknowledged. It is clear, however, that recent federal legislation has expanded organized labor's rights without correspondingly extending its responsibilities. Its control of the labor supply has clothed the union with a public interest. The "rule of reason" should apply to union activities as well as to those of corporations. Federal and state laws should provide that union qualifications for membership be reasonably related to the job skills involved, and that union dues be directed to the fulfillment of the union's lawful activities. The requirement that union and corporate funds should not be used

<sup>7</sup> For a vivid account of the transformation produced by a shift from an anti-union to a pro-union policy on the part of management, see William F. Whyte, *Pattern for Industrial Peace*, Harper & Bros., New York: 1951.

Most of the above favorable appreciation of the possibilities of unionism is taken with small verbal changes from John V. Van Sickle, *Planning for the South: An Inquiry into the Economics of Regionalism*, Vanderbilt University Press, Nashville: 1943, p. 24.

<sup>8</sup> Sumner H. Slichter, *The American Economy, Its Problems and Prospects*, Alfred A. Knopf, New York: 1948.

to support a political party should be enforced with impartial severity. Full publicity of audited accounts should be required of unions as it is of corporations. The State should see to it that genuinely democratic processes are scrupulously observed in the election of union officers and in the formulation of union policy. The existing ban on the closed shop should be continued. Law and order and the right to work should be enforced at all times and in all places. This is equivalent to saying that the right to strike does not involve the right to use violence on the picket line. The union like the corporation should again be made liable to federal anti-trust laws.<sup>9</sup>

**Industry-wide bargaining and the problem of power.** In a celebrated article which appeared in 1944, the late Professor Henry C. Simons of the University of Chicago declared flatly that private capitalism and trade unionism, as it had developed in this country and in Western Europe, were incompatible and that one or the other would have to go.

For my part [he observed] I simply cannot conceive of any tolerable or enduring order in which there exists widespread organization of workers along occupational, industrial, functional lines. . . . In an economy of intricate division of labor, every large organized group is in a position at any time to disrupt or to stop the whole flow of social income; and the system must soon break down if groups persist in exercising that power or if they must continuously be bribed to forego its disastrous exercise. There is no means save internal competition, to protect the whole community against organized labor minorities and, indeed, no other means to protect the common interests of organized groups themselves.<sup>10</sup>

It is to be doubted whether a democratic society can destroy the right of men to join unions. Any government that could success-

<sup>9</sup> The suggestions above are taken from Van Sickle, *Planning for the South*, pp. 35-6. In this connection it is worth noting how radically the position of the Supreme Court with respect to Big Business and Big Labor has altered since the days when it applied the penalties of Anti-Trust rather drastically against labor and quite sparingly against business. In 1945 it will be recalled (*American Tobacco Co. v. United States*) it held that it was not necessary that the power (to control the prices of commodities moving in interstate commerce) should be exercised. "Its existence is sufficient." When the Court thus holds that the Federal Trade Commission may enjoin business practices which *might* restrain interstate trade, even though in fact they have not been so used, it is surely time to apply the same rule to union practices which have repeatedly interfered with interstate trade. The survival of democracy may well depend upon restoration of respect for the democratic principle of equality before the law.

<sup>10</sup> "Some Reflections on Syndicalism," *Journal of Political Economy*, March, 1944; and later reprinted in Simons' *Economic Policy for a Free Society*, Univ. of Chicago Press, Chicago: 1947.

fully ban unionism would be the kind of government that would threaten all democratic processes. Wherever unionism has been destroyed, democracy and private enterprise have also been destroyed. They are all in the same boat.

Perhaps the measures suggested in this section will suffice to give us the type of responsible unionism under which a dynamic and progressive enterprise system can flourish. But, if not, it may be necessary to ban industry-wide bargaining, for it is this aspect of trade unionism which aroused Professor Simons' misgivings. Control of the entire labor supply of an industry gives trade union leaders more power than can wisely be left in private hands. This power is used to promote the kind of wage uniformity without regard to region or size of community which we have shown to be contrary to the operating requirements of the private enterprise system in a country as vast and diversified as the United States. Furthermore it appears to promote cartel-like arrangements among the firms that are forced in self-defense to join together to resist excessive union demands. And the next step is then very easy—a joint labor-management agreement to restrict the entry of new firms and additional workers into the industry and to pass on the costs to the hapless consumer. This appears to have been the road down which Great Britain traveled in the years between the first and the second World Wars. If trade unionism in the United States follows the same road, then Professor Simons' flat assertion of the incompatibility of private capitalism and trade unionism may prove to be correct, and the American people will be faced with a difficult choice.

**Big Business and Big Labor.** Anyone who proposes that the territorial jurisdiction of our national unions be limited is immediately asked, "Are you prepared to propose the same medicine for Big Business?" The authors have indicated in the chapters on Effective Competition and on Government and Business why they do not regard "bigness" in business as a threat to our democratic institutions. So long as our giant corporations compete for the consumers' dollar, their power is limited. From a purely economic point of view the two problems are not comparable. Politically, however, the argument that the two types of bigness shall be accorded equal treatment is very strong. All that the authors can say as citizens is that they would be prepared to see government impose some limitations on bigness in business if that is the political price that has to be paid for securing limitations on the power of some of our great national unions.

### WAGE DETERMINATION UNDER MONOPSONY AND OLIGOPSONY

Before concluding this chapter there is need to consider the claim that the prevalence of business monopoly in the hiring of labor justifies minimum wage laws and union bargaining practices which could not possibly be justified in an economy operating under more competitive conditions.

It is true that a firm that is the exclusive or principal hirer of labor faces a rising labor supply curve. The management's decision to expand employment involves the payment of higher wages not only to the additional workers, but to all those previously employed. Under such circumstances the optimum employment, from the point of view of the firm, is reached when the additional revenue earned as a result of employing one more worker just equals the total addition to labor costs as a result of employing him. This optimum employment figure is less than would have been the case had the competition in the labor market been such as to force the firm to pay higher wages regardless of whether it did or did not expand output. A general wage increase, imposed by law or by collective bargaining, would, under these special circumstances, make it profitable for the firm to hire more workers than it would have hired in the absence of the imposed wage increase. This does not mean that the imposed wage increase would increase the firm's profits. Profits would be reduced, but the reduction would be still greater if the firm failed to increase employment to the new and larger optimum employment figure.

This theory is frequently used to support the measures discussed in this and the preceding chapters. Does it call for any modification of our unfavorable conclusions? We believe not.

In the first place, the conditions which would justify an upward manipulation of wages always occur in particular labor market areas. The minimum wage which would increase employment in one labor market area would cause unemployment in another. The minimum would have to be tailored to the precise conditions in each labor market area, if the law was to have beneficial over-all employment effect. Except in periods of fairly rapid inflation a uniform minimum wage law is bound, on balance, to create more unemployment than employment.

A Walsh-Healey wage determination tailored to the conditions prevailing in the communities where the successful bidders actually produced the products purchased by federal agencies could con-

ceivably have a beneficial employment effect. It is very doubtful, however, whether any administrative officer could possibly discover the appropriate wage. In any event the Labor Department has refused to explore this possibility despite the fact that the Act apparently calls for locality wage determinations.

Collective bargaining geared to local conditions could, from a theoretical point of view, have a favorable employment effect. This is one reason for our conviction that it is possible to have workable unionism and workable capitalism. But if the trend toward industry-wide bargaining continues, the chances of its having this favorable effect become progressively less.

In conclusion it is important to note that the theory is applicable to essentially short-run situations. Let us admit, for the sake of the argument, that a *fiat* wage increase in a particular community would have an immediately beneficial effect on employment. The workers are being "exploited," in the sense that they get less than their marginal value product. But how long can this exploitation last, particularly in this country where good roads and plenty of cheap cars give workers very considerable mobility? The exploiting firm will soon find that it is losing workers to firms in near-by communities. It is in potential competition with all firms within commuting distance. Its ability to exploit is very limited as long as the general demand for labor in this commuting area is high. The mobility of capital further limits the time during which it can exploit the local worker. If the firm itself does not expand, outside capital is likely to come in to take advantage of the low wages.

This refinement of wage theory provides no support for the wage policies here under review. On the contrary, it would justify even more drastic limitations on the territorial jurisdiction of a union than those we have suggested. Specifically the theory leads to the conclusion that the determination of a minimum wage and the control of unions should be returned to the states and that the federal government, which almost of necessity must apply uniform rules, should confine itself to the suppression of efforts to interfere with interstate commerce by the vigorous and impartial enforcement of the anti-trust laws against business and labor.

### Questions:

1. Trace the legal evolution of trade unionism in the United States and cite the principal federal measures that resulted in the transformation of collective bargaining from a "liberty" to a "right."

2. What is the difference between a liberty and a right?
3. "Industry-wide collective bargaining tends to produce a geographical pattern of wages that is functionally unsound." Explain the economic reasoning behind this statement.
4. Argue for or against the following proposition: "Equity requires that any territorial limitations on the jurisdiction of a trade union should be accompanied by a corresponding territorial limitation on the operations of a corporation. i.e., if a union's operations should be limited to a single state, the same rule should apply to a business corporation." (Incidentally this rule does apply to private banking corporations.)
5. Discuss critically the economic validity of the following proposition: "Since standardized products sell in all local markets at substantially the same price regardless of where they are produced, it follows that those who make these products should get substantially the same rates of pay."
6. Define monopsony and oligopsony. Argue for and against the following proposition: "If monopsony and oligopsony are widespread in the American economy, a uniform national minimum wage and industry-wide collective bargaining can actually increase both wages and employment."



PART SEVEN

*Agriculture*



## *American Farm Problem*

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IN THE two preceding chapters we described and analyzed the far-reaching measures in the field of labor-management relations enacted during the 1930s and 1940s. These measures could not have been passed without the support of both the labor and the farm vote. The farmers had to be given something to offset the unfavorable effects of the labor legislation on their interests. It is not surprising, therefore, that the interventions in the agricultural field were equally far-reaching. They virtually exempted the American farmer from the necessity of competing for the consumers' dollars. The industry in which conditions most closely approximated those of pure competition was converted almost overnight into an industry clothed by the federal government with monopoly power. In addition large sums were taken from the nonfarm population to raise the money incomes of farmers and to pay them for observing restrictions on output.

This farm program will be described and appraised in the next chapter. Our interest in this chapter is in noting the extent to which farm incomes had lagged behind nonfarm incomes and in identifying the forces which are said to be responsible for the lag and for the inability of farmers to adjust their operations to the ups and downs of the business cycle. In addition we shall consider certain developments of the period 1910-1929 that may have been responsible for the very serious situation of the farm population on the eve of the 1932 Presidential elections.

### **FARM versus NONFARM INCOMES: 1929**

The accompanying estimates of 1929 per capita farm and non-farm incomes for the United States as a whole and for various parts

of the United States are based on a Brookings Institution study which appeared in 1934.

AVERAGE PER-CAPITA INCOMES, FARM AND NONFARM  
BY REGIONS, 1929 \*

	General Average	Average for Nonfarm Population	Average for Farm Population	Ratio Farm to Nonfarm Income
United States .....	\$750	\$908	\$273	0.301
Northeast .....	881	946	366	.387
Middle States .....	715	854	262	.307
Northwest .....	590	703	426	.607
Southeast .....	365	535	183	.342
Southwest .....	564	683	366	.535
Far West .....	921	953	818	.858

\* Source: These figures are taken from National Resources Committee, *Changing Population*, p. 43; and are based on estimates for separate states in *America's Capacity to Consume* (Brookings Institution, 1934).

The income gap had actually widened during the 1920s. Only in the Far West did farm incomes approximate nonfarm incomes. This enormous disparity existed at the end of a long period of growth. This fact must be kept in mind when we come to examine the New Deal in agriculture.

At the same time we should recognize that the figures exaggerate the extent of the disparity between farm and nonfarm levels of living. There are several reasons for this. In the first place, dollar income figures necessarily underestimate the value of the goods and services produced and consumed within the farm household. In the second place that part of a farmer's money earnings derived from off-farm jobs is credited to the nonfarm population. These nonfarm earnings are particularly important in the case of very low-income farmers. In the third place the intangible satisfactions that attach to farming as a way of life cannot be measured at all. Finally these per capita figures are, after all, mathematical averages and are therefore not at all typical. They are pulled down by the extremely low incomes of subsistence farmers in certain extensive problem areas<sup>1</sup> like the Southern Appalachian Coal Plateaus, the Ozarks, and the cut-over regions around the Great Lakes and the

<sup>1</sup> Carter Goodrich and others, *Migration and Economic Opportunity*, University of Pennsylvania Press, Philadelphia: 1936.

Gulf of Mexico, and by the inclusion in the farm population of many rural families whose incomes came largely from nonfarm sources.

But after making all of these allowances it is still true that farmers had good grounds for believing that they were not getting their fair share of the national income.

### FORCES TENDING TO DEPRESS FARM INCOMES

**Our prolific farmers.** Perhaps the most powerful and persistent force operating to keep incomes below nonfarm incomes is the biological robustness of the American farm family. The differential is narrowing, but, in 1950, the average number of children per farm family was still 50 percent greater than the average number per urban family. Unless the market demand for agricultural labor increases much faster than the demand for labor generally, this population growth differential will, in and of itself, tend to keep farm incomes below nonfarm incomes.

**Our national land policy.** Historically our national land policy has left us with a relative oversupply of farmers and with extensive areas in cultivation which should never have been put to the plow.

When the thirteen states entered the Federal Union they surrendered their vast and conflicting claims to the western lands. The federal government sold these lands in part for revenue, but primarily to encourage the rapid settlement of the country. After 1862 federal lands were given away in small units to householders with little attention to the relation of the size to the character of the soils and the climatic conditions. Decade after decade population poured into the West from Europe and from the older and more settled parts of the country. Life on the frontier was hard and dangerous. Much of the land was put under cultivation while it was still submarginal from the strictly economic point of view. The settlers, however, gladly accepted the resulting sacrifices, confident that, over the years, the rise in land values would provide delayed compensation for present privations. Meantime, competition prevented them from getting the going rates of return on their labor and the future land value increments as well.

The era of cheap land is over, but the price mechanism is still burdened with the task of bringing about a sufficient shift of man power from farm to nonfarm activities to equalize the marginal productivity of labor as between these two great sectors of the economy. The task is all the more difficult because farm families are largest in the poor and relatively isolated farming areas. The

lower the fertility of the soils, the higher appears to be the fertility of the families dependent on these soils. The relatively low incomes of American farmers taken as a whole appear to be due primarily to the concentration of poverty in these poor land areas with their small farms and their large families.

**The heritage of World War I.** During World War I the United States had to step in and fill part of the food and fodder gap created by the sharp contraction of agriculture in Europe as the resources of that continent went to war. It is estimated that by the end of the war some 30 million additional acres were under cultivation in this country alone. (Comparable expansions occurred in Canada, Australia, New Zealand, and in many countries of South America.) We were able to do this, despite the military drain on our farm labor supply, through mechanization and the use of power-driven machines. This substitution of gasoline power for horse (and mule) power had the further effect of releasing for human needs substantial additional acreage. With the restoration of agricultural production in Europe after the war it was inevitable that American agriculture would be confronted with a very difficult adjustment problem.

**The revolution in agriculture.** Rapid progress in the application of the physical, chemical, and biological sciences to agriculture has greatly increased in recent years crop yields per acre and reduced the man power needed to harvest the acres. Science has postponed the effects of the law of diminishing returns. Corn yields in the United States, for example, rose from 20.5 bushels per acre in 1930 to 42.8 in 1948. The corresponding figures for cotton were 157 and 311 (pounds); for potatoes, 109½ and 215½ (bushels). Between 1910 and 1950 farm output per man hour more than doubled. One hundred years ago, the average farm worker produced food and fiber for 4½ people; by 1900 he was producing enough to take care of 14 persons; today he supplies 22 people. These developments have put a further heavy load on the price mechanism as a means of inducing the needed voluntary shifts of population from farm to nonfarm occupations.

**The protective tariff.** A protective tariff, as we have seen, hurts the export industries of a country. Throughout most of our history American agriculture was an export industry. Consequently, our high tariffs on manufactured and semi-manufactured goods hurt the farmer in two ways. First, they reduced the ability of foreigners to earn dollars and hence cut down the foreign demand for our great export crops, thus reducing the prices at which these crops

could be sold. Second, they increased the prices of many of the things the farmer bought. In brief, the tariff worsened the terms of trade between the farm and the nonfarm sectors of the economy.

**Population immobility.** None of the foregoing forces operating singly or in combination could keep farm incomes chronically below nonfarm incomes if workers were completely mobile. But as Adam Smith pointed out in his discussion of the large differences in wages prevailing in the different parts of the United Kingdom of his day, "man is of all sorts of luggage the most difficult to be transported."<sup>2</sup> This being so, it is not surprising that farmers' incomes have tended to be lower than those of nonfarmers.

**Urban subsidization.** Man doubtless is the most difficult of all sorts of luggage to be transported. Nonetheless he is not completely immobile and nowhere is this truer than in the United States. The steady decline in the proportion of the population classified as rural shows that a portion of the farm youth of each generation has been willing to seek urban employment. During the single decade of the 1920s more than six millions left our farms for our cities. This exodus undoubtedly prevented the disparity between farm and nonfarm incomes from being even greater than it was. While the farm group as a whole benefited, the migration nonetheless involved a sort of concealed subsidization of our cities. In the first place many of those leaving the farms had ownership claims which had to be honored by those who remained behind. Some part of the mortgage debt of American farmers in each generation has been incurred to settle these claims. The debts themselves are not productive in the sense that debts incurred to buy power machinery or to till and fence land are productive. Thus the servicing of these debts places a transfer burden on the farm population which reduces their share of the national income and increases that of the urban population.

Rural communities have also invested billions of dollars in the rearing and education of young people, only to lose them to the cities when they reach the age at which they produce more than their keep.

These two forces have contributed historically to the disparity between urban and farm incomes. They were operative up to and through the 1920s. Whether they will continue to exercise a depressing effect on farm incomes remains to be seen. The recent growth of state and federal grants-in-aid, coupled with the shift from indirect taxes to direct and progressive taxes on personal in-

<sup>2</sup> *The Wealth of Nations*. Book I, chap. viii, p. 67.

comes, may well have reversed the situation. It is quite possible that, at the present time, the cities are subsidizing the rural areas. But in our search for an explanation of the forces of revolt that were building up in the farm population "urban subsidization" deserves mention.

**Farm tenancy.**<sup>3</sup> In a sense the farm tenant problem represents a digression. It is only indirectly related to the issue here under discussion and only to the extent that it can be shown to lead to the inefficient use of land, and hence to a failure of farm tenants to contribute as much as they might to total farm income.

The term "tenancy" is used to describe a situation in which one person owns real estate and another uses it. The tenant contract defines the relationship. The contract may be written or oral; it may run for a term of years, a year, or for an indefinite period of time. In the case of a farm the tenant may pay in cash, or in a share of the produce, or in cash and a share of specified crops. The landlord may share in the expenses of operating the farm, or all of these may rest on the tenant. Finally, the landlord may direct in detail the operating program for the farm, or all decisions may be left to the tenant.

Written contracts for these relationships are the exception in the United States. Most are oral, run from year to year, and call for payments in the form of a share of the crop or crops. The landlord's share depends in part on local custom and in part on the amount of his contribution to the operating expenses. There are close to two million tenant farmers in the United States today, with only one in five paying a cash rental.

American public opinion has always looked with disfavor on tenancy. The Homestead laws with their free grants of land were designed to create a rural population of owners operating family-sized farms. This disfavor is not entirely justified. Tenancy can play a constructive role in an agricultural society. It can be a means by which men with an aptitude for farming but without capital gain access to the land; it can be a ladder up which the able and ambitious can climb to ownership. A good farmer may find it more profitable to invest in livestock and farm equipment, rather than tie up his capital in land and be forced to cultivate a smaller acreage than he needs to give full scope to his managerial abilities.

<sup>3</sup> This discussion of tenancy is a condensation of a somewhat fuller statement to be found in John V. Van Sickle's *Planning for the South*, Vanderbilt University Press, Nashville: 1943, pp. 132-143.

A less able operator, on the other hand, may benefit from the supervision which many landlords give to their holdings.

In theory it should be a matter of indifference to a young man whether he starts out as a tenant or as an owner-operator. If competition were perfect, the owner-operator would have tied up in the purchase price of the land an amount equal to the capitalization of the annual rental payment of the tenant. In principle, tenancy and land ownership stand on the same footing. For this to be true, however, several conditions have to be satisfied; and it is the fact that they are not satisfied that makes tenancy in the United States a social and economic problem.

The objectionable feature of tenancy in the United States is that it fails to provide the proper work incentives because it does not guarantee the tenant, as a legal right, the value of any unexhausted improvements he may have made to the farm during his term of occupancy. On any farm, however diversified, the work load cannot be spread evenly over the entire year. Slack times should be used to repair buildings, mend fences, stop up gullies, drain low lying land, and otherwise increase the long-run productivity of the land. There is no incentive for a tenant on a one-year oral lease to use his spare time in this fashion. As far as the law is concerned, any improvements he makes belong to the landlord. The latter will be within his legal rights to demand a higher rent at the next renewal date. The result is that many tenants do not make effective use of their time throughout the entire year. In some parts of the country, and particularly in one-crop areas, tenancy appears to have contributed to a wasteful and demoralizing pattern of human behavior. The tenant farmer in the Cotton South, for example, works long and hard at planting, harvesting, and weeding times, and then idles away much of the rest of the year. Children growing up in such an environment come to take this shiftless behavior pattern for granted.

The trouble with our typical oral tenant contract is that it violates the "responsibility" assumption on which a private enterprise system depends. The *quid pro quo* principle of the market is violated. If the tenant undertakes to improve the land, there is no guarantee that he will be paid for what he does. The landlord is in a position to get something for nothing. This being so, the tenant frequently does nothing. Indeed, in the short run, he has no incentive even to maintain the fertility of the land. This is one reason why tenancy in the United States has proved so hard on the land and the people.

### FARMING AND THE BUSINESS CYCLE

The implications of the analysis up to this point are that a constructive farm program should aim at (1) making it easier for farm youth to find nonfarm jobs, (2) increasing the demand for farm products by lowering tariffs and otherwise expanding the demand for farm products, and (3) improving the farm tenant contract.

Most economists are in agreement on these points. But many agricultural economists hold that more is needed as long as business cycles persist. They point out that farm incomes fluctuate much more than nonfarm incomes during the up- and downswings of the cycle and conclude that continuous governmental interventions are needed to stabilize farm incomes.

The supporting argument runs roughly as follows: The short-run demand-and-supply schedules for most agricultural products are relatively inelastic. Changes in money demand have relatively large effects on agricultural prices and relatively small effects on agricultural outputs and employment. This response is due primarily to the fact that so large a part of farm costs are fixed. On the typical family farm the labor is provided by the farmer and the members of his family. Family living expenses, inflexible property taxes, and interest charges on borrowed capital are all part of his overhead. They cannot be reduced by cutting down production. The substitution of power-driven machinery for horsepower has increased his need for a cash income in good times and bad. The farm does not grow gasoline. Consequently farm output and employment tend to remain high in the face of a falling demand for agricultural products. If there is any decline in production it is likely to be due to reduced expenditures for fertilizer and disease control, rather than to reduced acres planted and harvested. In manufacturing, on the other hand, where variable costs loom larger and competition is less perfect, a fall in demand leads to a relatively sharp decline in production and employment, and to a relatively small decline in prices.

This marked difference in the responses of the farm sector and the manufacturing sector accounts for the exceptional instability of net farm incomes over the business cycle. In periods of rising prices and high economic activity farmers as a class share and perhaps more than share in the general prosperity, despite the permanent forces operating to keep their incomes below those of the nonfarm population. In periods of general falling prices and low economic activity, the short-run supply-and-demand conditions here under

consideration reinforce the more permanent forces and drive the net incomes of farmers to intolerably low levels. Moreover many of those thrown out of employment in the cities return to the land where at least they can dig a subsistence out of the soil. Thus a reduced money income has to be divided among more people.

Theoretically farmers could and should set aside a portion of their incomes in fat years to take care of the lean years. But this is very hard to do. Rather there is a very human tendency for farmers to use the earnings of the good years to provide for themselves and their families the comforts and conveniences which have meantime become commonplaces in urban homes. Furthermore the rapid improvements in farming equipment increase the optimum size of the farm unit and hence lead able farmers to use their high incomes of good years (and to borrow) in order to enlarge their holdings. Then in the ensuing period of depression farmers are forced to let their farms run down or even to lose them through foreclosures in the event that they had overborrowed during the preceding period of prosperity.

This, in short, is the argument for a permanent aid program for farmers. We shall examine in the next chapter two proposals for sheltering farmers from the full effects of the business cycle.

### SPECIAL COMPLICATIONS

So much for the behavior of farm incomes over minor cycles of prosperity and depression. The depression that set in in 1929 was no minor recession. We shall have more to say regarding it in our discussion of the foreign economic policies of the United States during the 1920s. Here we wish to point out why the farm sector of the American economy was more than usually vulnerable when The Great Depression hit in the fall of 1929.

Two forces appear to have been at work: overindebtedness and the decline in agricultural exports as a result of our tariff and immigration policies of the 1920s.

**Farm debt.** We have already indicated why farm indebtedness tends to increase during the upswing of a typical cycle. Here we want to point out how the behavior of farm land prices in a period of rising general prices encourages overborrowing.

Farm land prices are based on the capitalization of existing rents, plus anticipated future increases in rents. In periods of rising agricultural prices money rents rise. If the rise continues for some years, the market establishes values that are out of line with current rents. In an earlier chapter this relationship was expressed by

the formula  $V = (a/r) + (i/r^2)$ . Even a slowing down in the rise of agricultural prices, and hence of rents, can prove embarrassing. A price recession produces a collapse in land values (the  $i/r^2$  part of the formula becomes negative).

Between 1909 and 1920 there was a fairly steady rise in agricultural prices which reflected itself in rising farm land values. Between 1912 and 1920 farm land values rose by 75 percent. The rapid recovery of agriculture in Europe at the end of World War I led to a world-wide fall in agricultural prices. Farm land values in the United States were particularly hard hit. By 1930 farm land values were one-third less than they had been ten years before.

Farmers on good land who had resisted the temptation to borrow and buy land at inflated prices, or who had repaid their loans during the period of rising agricultural prices, managed to make a fair living during the 1920s. But it was precisely in good farm land areas that speculation in farm lands was most intense. As a consequence farmers as a group failed to share in the general prosperity of that decade. The gap between farm and nonfarm incomes widened. This debt situation had not been cleared up when The Great Depression hit the farm sector.

The situation was further complicated when thousands of country banks closed as the result of defaults on their farm loans.

**Our tariff and immigration policies.** We have already indicated why the interests of the American farmer were hurt by our traditional protectionist tariff policy. Here we wish to emphasize two things: First, protectionism does much more harm after a country has reached industrial maturity and becomes a creditor country than it does when the country is in the infant-industry stage of its development and is borrowing heavily abroad.<sup>4</sup> Second, the adverse effects of tariffs are mitigated if governments allow peoples to move freely and settle where they will. Up until 1920 our government actively encouraged immigration.<sup>5</sup> There are sound psychological and sociological reasons why our open-door immigration policy could not be continued indefinitely. Unfortunately the drastic reversal of our immigration policy and the sharp increases in our tariffs during the very decade in which we became the world's greatest industrial power and the foremost creditor nation made the recovery of the European nations from the effects of the first World War very difficult and led them to impose drastic restric-

<sup>4</sup> The reasons why this is so are developed in Chapter 38.

<sup>5</sup> Our restrictions on the entry of Chinese and Japanese represent exceptions to this statement.

tions on American exports. The American farmer was one of the chief sufferers. Thus during the three years 1921-1923 inclusive our exports of crude foodstuffs represented 11.3 percent of total exports, whereas they fell to 5.1 percent of the reduced exports of the three-year period 1929-1931.<sup>6</sup> The dollar value of our exports of crude foodstuffs in the later period were down by almost 60 percent.

Inevitably this abrupt drop in foreign demand, when coupled with the decreased domestic demand resulting from massive urban unemployment, provoked a disastrous fall in the prices of almost all agricultural products. In 1932 the prices of wheat and a number of other basic products were the lowest in 300 years. In some local markets corn was down to 15 cents, cotton and wool to 5 cents, hogs and sugar to 3 cents, and beef to 2½ cents. The net income of farm operators averaged 80 cents per day. Farm lands were being rapidly depleted by erosion and the loss of organic matter. Mortgage debt equaled one-fourth the value of all farm real estate.<sup>7</sup> American agriculture was close to bankruptcy. Most of the individual state governments had exhausted their credit and were unable to do anything more to hold back the rising tides of distress. It was politically necessary and economically desirable that the Federal Government should lend a hand. What was done is described and appraised in the next chapter. That the appraisal is, on the whole, unfavorable does not imply that the Federal Government should have done nothing.

### Questions:

1. Explain why per capita income figures expressed in dollars tend to undervalue real farm incomes more than they do the real incomes of nonfarmers.
2. Identify the historical forces that have tended to keep real farm incomes lower than nonfarm incomes.
3. Explain the meaning of the statement: "The American tariff worsened the terms of trade between the farm and the nonfarm sectors of the economy."
4. Explain the meaning of the statement: "The migration of farm people to cities involves a concealed subsidization of our cities."

<sup>6</sup> Calculated from data in U.S. Department of Commerce, *Historical Statistics of the United States, 1789-1945* (1949).

<sup>7</sup> Summarized from *1951 Report of the Secretary of Agriculture*, U.S. Government Printing Office, Washington, D.C.: p. 13.

5. "Given pure competition it would be a matter of indifference whether a young man started out as a farm tenant or a farm owner-operator." Define pure competition and indicate what further conditions would have to be satisfied to make the statement true.
6. Explain the respects in which the typical farm tenant contract violates the "responsibility" requirement of the private enterprise system.
7. Explain (a) why farm incomes tend to fluctuate more than nonfarm incomes during the up- and down-swings of the business cycle and (b) why rising and falling farm incomes exercise a disproportionate effect on farm land values.

## *Government and the Farmer*

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IN THIS chapter we shall (1) trace the evolution of the New Deal in agriculture; (2) appraise the various programs; and (3) suggest modifications designed to make federal interventions consistent with the working requirements of a market economy.

The measures to be examined fall under the following headings:

1. Improved credit facilities.
2. Output restrictions.
3. Price supports.
4. Soil conservation.
5. Tenancy reform and the promotion of farm ownership.

### **IMPROVED CREDIT FACILITIES**

From the very beginning of our history the American farmer has complained of the inadequacy and the high cost of capital. His support of the Greenback and the Free Silver movements of the last century was due to his belief that a more ample supply of money would not only support agricultural prices, but would also enable him to borrow on more favorable terms.

The federal agencies to which he now looks for credit assistance are the Farm Credit Administration, the Farmers' Home Administration, and the Rural Electric Administration.

**The Farm Credit Administration (FCA).** The work of the FCA goes back to the Federal Farm Loan Act of 1916. At the present time, and as a result of amendments made in the early 20s and 30s, there are four federal agencies to which farmers can turn for long- and short-term credit: the Federal Land Banks, the Federal Intermediate Credit Banks, the Production Credit Corporations, and the Central Bank for Cooperatives.

In 1950 these agencies had approximately \$2 billions out on loan. They depend for their funds on their earned surpluses and on their ability to borrow in the open market. None of their loans are guaranteed either as to principal or as to interest.

The activities of these credit agencies are entirely consistent with the operating requirements of the private enterprise system. They provide farmers with types of credit accommodations which ordinary commercial banks are not equipped to provide. Capital has been made more mobile and hence more available by the process of pooling risks. Regional differences in interest rates have been reduced. There is no subsidization involved.

**The Farmers' Home Administration (FHA).** The purpose of this agency is to provide credit and outright assistance to poor farmers, croppers, and farm laborers whose credit standing is such that they cannot borrow through private commercial banks or through the agencies of the Farm Credit Administration.

The FHA makes direct loans and insures loans made by private investors up to 90 percent. It is authorized to make four types of direct loans: (a) short-term operating loans running from one to seven years; (b) farm purchase loans amortizable over 40 years; (c) housing loans amortizable over 33 years; (d) water facility loans in 17 Western states; and (e) since 1949, disaster loans. It is also authorized to make outright emergency loans to small farmers for minor repairs "essential to health and safety." Since the beginning of the program, the ceilings on individual loans have been raised, the interest rates lowered, and the repayment periods lengthened.<sup>1</sup>

**The Rural Electric Administration (REA).** The Rural Electric Administration, first set up under the Emergency Relief Appropriation Act of 1935, was given statutory sanction by the REA Act of 1936 and placed under the Department of Agriculture in 1939. Its purpose is to bring power and light to poorer agricultural areas not adequately served by private companies. A 1944 amendment liberalized the terms on which it might advance capital. Five years later

<sup>1</sup> From 1935 up to 1946, the federal government had made loans of the FHA type to about one million farmers. By mid-1950 seven-eighths of these loans, totaling more than one billion dollars, had been repaid with interest. This would have been an exceedingly creditable performance had the transaction not occurred in an inflationary period in which it would have been hard for any large number of borrowers to fall down on their obligations. The dollars the government got back were worth much less than the dollars it loaned.

In 1950 106,000 farmers received operating loans totaling \$96 million; 2,293 secured home ownership loans of some \$15 million. From April 1949 to mid-1950, approximately 26,000 farmers were beneficiaries of disaster loans, and from November 1949 to the same date, 4,157 families received \$18 million in building loans.

the Administration was authorized to make loans for rural telephone lines.

The REA makes 100 percent loans (i.e., it puts up all the capital) to electric power and light and telephone associations which can qualify. Preference is given to public bodies, cooperatives, and nonprofit or limited dividend companies. In addition, the Administration provides free of charge expensive legal, engineering, and other technical services. In 1944 the interest rate was lowered to a flat 2 percent, and the repayment period was extended from 25 to 35 years.

The four billion dollars loaned to date do not figure as part of the national debt, despite the fact that the loans are guaranteed as to principal and interest by the federal government. This large sum would not have been forthcoming at 2 percent, were it not for the fact that every taxpayer in the country stands obligated to help redeem the loans in the event of defaults. The subsidy element in the program is thus substantial.<sup>2</sup>

The bringing of electric light, power, and telephone service to areas of scattered settlement is relatively costly. Private utility companies have never penetrated such areas. The special costs involved require rates so high as to preclude any general use of the services. Only through outright or disguised subsidies can the people in such areas be generally served. Under private enterprise the subsidy would have to be paid by consumers in more densely settled areas in the form of higher rates. It is only fair to add, however, that the private companies also failed to enter many prosperous farming regions either for lack of vision or lack of capital.

The REA program is based on the thesis that these services should not be limited by ability to pay. They are held to belong in the same category as good roads, postal service, and education. If private utilities cannot provide them, government should—and not the state governments, but the federal government.

Since the service charges do not cover all costs, as private companies would have to figure costs, the demand naturally exceeds the supply. Hence it is necessary to allocate funds according to a political formula. At the present time one-half of the amount an-

<sup>2</sup> At the end of 1950 some 3,800,000 farms and rural dwellings had been affected by the program, and at that time approximately 23,000 additional families were being serviced each month. Farmers of the Old South have been the greatest beneficiaries of this program. In 1935, for example, less than 5 percent of the farms of the South had electricity, whereas almost 50 percent of those in the Pacific Coast states were electrified. Sixteen years later close to 80 percent of Southern farms had been supplied with electricity, while in the Pacific Coast states coverage was almost complete.

nually appropriated by the Congress is allocated to the states on the basis of the proportion each state's unelectrified farms bear to the total number of farms without central station electric service. The other half is distributed at the discretion of the Rural Electric Administration, subject to the proviso that not more than 10 percent may be loaned in any one state.

**General observations.** It is obvious that the federal farm credit program has modified the terms and the direction of flow of capital. It has forced considerable amounts into a sector of the economy where the marginal productivity of land and labor are both low. The justification is supposed to be social. If, however, these measures serve to keep people in submarginal areas, the long-run social costs may prove heavy.

### OUTPUT RESTRICTIONS

The program for raising farm commodity prices represents an even more complete rejection of the market mechanism than do the credit measures described in the preceding section.

The beginnings are to be found in the pre-New Deal Agricultural Marketing Act of 1929. This Act created a Federal Farm Board with a revolving fund of \$500 million to stimulate the development of national cooperatives for the "orderly marketing" of farm products. Most of this money was used to provide the capital for two stabilization corporations for wheat and cotton. No provision was made for controlling production. As a result of a sequence of good harvests and the general recession the fund was soon exhausted and the government found itself in the possession of large holdings whose very existence constituted an unstabilizing influence. Some \$400 million were lost in these two operations.

**The Agricultural Adjustment Act of 1933.** The lesson of the Farm Board experience was that a purchase program without a production control program was unworkable. The original AAA Act of 1933 combined price supports and controls. Under it the government ordered the destruction of a portion of certain growing crops, the slaughter of "the little pigs," and acreage restrictions on the next year's planting of so-called *basic* commodities. Originally seven commodities were so classified: wheat, cotton, corn, hogs, tobacco, milk, and milk products. The resulting shift of acreage to other crops depressed the prices of these crops and soon forced an extension of acreage restrictions to nine additional commodities.

*Parity.* The objective of the program was to give farmers

“parity” prices for their principal crops. Parity was defined as the price which would equal in purchasing power that which the commodity had commanded in the *base* period which, in general, was the five years 1909-1914. Parity was to be determined by a comparison of the percentage change (a) in the current price of each *basic* commodity, and (b) in the current prices of the principal items bought by farmers, both changes measured against the corresponding prices of the base period. Thus if corn is currently selling at 20 percent more than its 1909-14 average price, while the prices of the things the farmer currently buys are 50 percent higher, corn will be selling at 80 percent of parity.

To induce compliance the government paid cooperating farmers benefits based on the acreage withdrawn from production and imposed fines on noncompliers. The necessary funds were raised by a processing tax on the first handlers of the protected crops. Payments were limited to the yield of the tax. During this early period the support level remained low, around 50 percent of parity. The program did little more than set a floor under a few major agricultural prices.

**The Soil Conservation and Domestic Allotment Act.** In January, 1936, the Supreme Court held the processing tax unconstitutional as an illegal use of the taxing power to regulate an activity expressly reserved to the states. To get around this constitutional hazard the Congress promptly passed the Soil Conservation and Domestic Allotment Act. Acreage restrictions were declared to be for the purpose of soil conservation, and benefit payments were to be defrayed from general revenues. The benefit payments were to encourage the substitution of “soil building” for “soil depleting” crops and for the adoption of conservation practices. By a fortunate coincidence the list of soil-depleting crops proved to be very much the same as the list of basic commodities of the outlawed AAA.

*Effects of acreage restrictions.* Actually the acreage restrictions never succeeded in lifting agricultural prices to parity, because they had little effect on output. Farmers dropped from cultivation their most unproductive fields and worked more intensively their permitted acreage. They also became more receptive to the technical advice coming from the State Colleges of Agriculture, the Experiment Stations, and the County Agricultural Agents, and more willing to apply fertilizer and to make use of the new hybrid seeds that were coming on the market. Furthermore the improved conservation measures which the Conservation Service was promoting soon reflected themselves in increased yields. The corn yield, for ex-

ample, as was pointed out earlier, rose from 24 bushels in 1935 to 43 bushels in 1943.

### PRICE SUPPORTS

Because of the relative failure of the production control program the Administration was obliged to rely primarily on its spending power to provide farmers with the parity prices they felt they deserved. The price support program is handled through the Commodity Credit Corporation. At present the Corporation is capitalized at \$100 million and has authority to borrow up to \$6,750 million. Its bonds are guaranteed as to principal and interest by the federal government. Its major responsibility is to carry out the government's agricultural price support program. This is done primarily through nonrecourse loans and secondarily through marketing agreements and diversion operations.

**Nonrecourse loans.** A farmer who is dissatisfied with the prevailing market price may borrow from the Corporation at a price set by the government. If the market price fails to rise above the loan level, he may redeem his note by delivering title to the crop to the Corporation. If, on the other hand, the price rises above the loan level he may pay off his note, redeem his crop, and pocket the difference. It is a "heads-I-win, tails-you-lose" proposition with the taxpayers taking all the losses. The program is applicable to storable crops only. If granted on a large enough scale, nonrecourse loans can set a price floor under such crops at any desired level.

The program was started in a small way with corn and cotton and with the loan prices well below the official parity figures. Discretion as to the crops to be supported and the level of support was left with the Secretary of Agriculture. The Agricultural Adjustment Act of 1938 for the first time made it mandatory on the Secretary to support corn, cotton, and wheat at not less than 52 and not more than 75 percent of parity. The Secretary was further authorized, at his discretion, and within the limits of the funds at his disposal, to support other storable crops.

The pressure to include more commodities and to fix the support level closer to the 75 percent ceiling was naturally tremendous. In January, 1941, the mandatory minimum support price was raised to 85 percent of parity and tobacco and rice were added to the list. In July of that same year the Secretary was required by the Steagall Amendment to lift the loan level to 85 percent of parity on any other commodity for which he might request an increase in production as part of the impending military preparedness program.

Continuance of support at this level was guaranteed by the Congress for two years after the end of the war. In October, 1942, the support level was raised to 90 percent of parity for corn, wheat, and tobacco, to 92½ percent for cotton, and to not less than 90 percent for the commodities covered by the Steagall Amendment, with the same guarantee for the first two postwar years.

*Flexible versus inflexible price supports.* The Agricultural Act of 1948 provided that with the 1950 crop year the support price would range from 60 percent of parity, when a crop promised to exceed the country's "normal consumption requirements," to 90 percent of parity when it fell to 70 percent of normal requirements. The following year the Congress postponed the application of the flexibility principle for one year, raised the minimum from 60 to 75 percent of parity for basic commodities (with the exception of tobacco, for which 90 percent of parity was made mandatory), set an 80 percent minimum for any 1951 crop for which marketing quotas or acreage allotments were in effect, directed the Secretary to provide support at various levels for another group of politically potent crops, and authorized him at his discretion to support still others at not more than 90 percent of parity. Even this maximum could be exceeded if the Secretary were convinced, after proper hearing, that a higher support level was necessary to alleviate shortages involving national welfare or national security.

In addition to providing for a flexible level of supports the 1948 Agricultural Act also provided for a more realistic method of calculating parity for each commodity, based on its average price over the last 10-year period. Each year the year most remote in time was to be dropped and the most recent crop year added. The Act of the following year, while postponing flexible price supports, retained the modernized formula for calculating parity. The new formula was to be mandatory for nonbasic commodities and optional for basic commodities, depending on which formula yielded more favorable results. The new formula was to be mandatory for all crops beginning the first of January, 1954. But in 1952, on the eve of the Presidential election, the Congress voted to extend the dual method of computing parity through December 31, 1955, which was tantamount to continuing the old formula.<sup>3</sup>

**Marketing agreements and orders.** Since 1933 the Secretary of

<sup>3</sup> The program is very expensive. Almost \$2.7 billion were required to support the prices of 1949 crops. Over one billion dollars was involved in 1950 crop supports. Part of these funds are subsequently recovered as surpluses are disposed of, but a total of \$346 million was lost on price supports in fiscal 1950.

Agriculture has been authorized to order processors and handlers of a few agricultural products (after public hearings and the approval of two-thirds of the producers concerned) to enter into price-raising and price-fixing agreements that would otherwise be illegal under the anti-trust laws. In 1950 these restrictive practices were in effect for milk, fruit, nuts, hops, and all perishables for which nonrecourse storage loans were not available. The milk orders set minimum prices which handlers must pay. For the others, control is through limits set on the qualities and quantities that may be shipped, rates of shipment, establishment of reserve pools, prohibition of "unfair" trade practices, price posting, and similar devices.

**Diversion operations.** As long as the government sets prices above those which would clear the market, surpluses necessarily accumulate. These must be disposed of or allowed to go to waste.

Limited quantities are disposed of through ordinary commercial channels when prices occasionally rise more than 5 percent above the current support price levels, plus carrying charges. Certain government agencies are authorized to buy government-held stocks for use abroad or in international barter arrangements for commodities not produced in the United States. Another method of disposal is through outright gifts to the Bureau of Indian Affairs, public and private welfare organizations, and to public schools in states which support school lunch programs. The government is also authorized to make payments to commercial exporters to permit them to sell competitively in foreign markets stored commodities which have been priced out of international markets by the domestic support program.

**An appraisal of the price support program.** The parity objective of the program described above is sound. It is the method which is faulty. A constructive aid program, whether it be for a socialist society or a capitalist society, should seek to equalize the marginal productivity of labor and capital in the various sectors of the economy by promoting shifts of resources out of low-paying occupations. Such a program would seek to reduce the man power presently attached to the agricultural sector, with the reduction concentrated in the areas where the character of the soils or the nature of the climate is such that the traditional family farm cannot yield the going rate of return to labor and capital, regardless of the level of agricultural prices.

The attempt to solve the farmer's income problem through price supports obstructs this type of adjustment.

(1) High and rigid price supports provide a distorted pattern of

agricultural prices which results in outputs that do not accord with current consumer demand. The support levels, based as they are on cost/price relationships of a by-gone day, are always too high or too low. If they are too low, they are meaningless. If they are too high, they provoke surpluses which have to be disposed of at home or abroad. Disposed of at home, they tend to defeat the price support program. If sold abroad, they are regarded as dumping and lead to retaliation. As will appear later, the whole program is inconsistent with our foreign economic policy. Regardless of the methods of disposal, artificial price supports involve heavy losses which have to be paid out of general taxes. Many of those who pay the taxes are less well off than many of the farmers who receive the benefits.

(2) High price supports must be accompanied by output restrictions if the program is not to cost a lot of money. Output restrictions have to be allocated to the states and, within the states, to the counties and finally to the individual farms. A political decision is involved which results in an allocation inferior to that imposed by the free play of market prices. Free prices tend to drive unproductive land out of use and to allocate production to the more fertile lands and the more efficient farmers. A political allocation necessarily perpetuates a past production pattern. Each farm gets an allotment based on the situation prevailing during an earlier period. The processes which tend to get land into its highest and best uses are stopped. The past is protected against the future; the inefficient is protected against the efficient. This is not the way to produce the economic surplus which a country needs if it is to solve the problem of poverty.

(3) Another objection to the price support method of helping the farmer is that it tends to raise money rents and thus gets incorporated into the land in the form of higher land values. The government's artificially cheap credit policy has had the same effect. Just as price supports increase the  $a$ , or net rent, in the formula  $V = a/r$ , so cheap credit reduces the  $r$ , or net interest rate, in the formula. Those owning farms at the inauguration of these programs have been the main beneficiaries. Subsequent buyers derive little benefit. What they gain in higher commodity prices and lower interest rates, they lose in the higher prices they have to pay for land. While they gain little, they would, of course, lose much if the program were discontinued. With every passing year the program creates more and more vested interests which would be seriously

hurt if a new and more constructive program were substituted for the existing one.

(4) This tendency of existing farm aids to get translated into higher land values requires that the aids be periodically increased. Otherwise they lose their effectiveness. This is one reason why the farmers' representatives in Congress find themselves forced to push for higher and higher support prices and more and more generous credit terms for their constituents. They are caught in the same dilemma that leads spokesmen for organized labor to demand periodic increases in the minimum wage and in the Walsh-Healey wage determinations, and protectionists in Congress to demand higher tariff barriers around the home market.

A constructive aid program for a growing and market-oriented economy must be so planned that the aid will not get capitalized into higher land values. American farmers needed help, but the program reviewed in this section has blocked the processes of adjustment and forced farmers to accept a degree of regimentation that runs counter to their own traditions and to the requirements of a private enterprise economy.

### CONSERVATION

The federal soil conservation program represents the most constructive part of the present farm aid program. It is aimed at protecting the nation's topsoil from erosion and leaching.

**The soil profile.** Soil experts speak of the soil profile. This is a cross section from the soil downward to the underlying rock formation. It consists of three "horizons." The "A," or upper, horizon is a thin film of earth, or topsoil, varying from 4 to 20 inches in depth, with 7 inches a good average. Below that lies the "B," or subsoil, horizon varying in depth from 10 to 40 inches. The "C" horizon, the last and lowest, consists of the stratum of parent materials. Soil productivity, at any given time, depends largely upon the condition of the "A" horizon. It takes nature thousands of years to form an inch of this precious topsoil; man can destroy it in a single generation. While plant nutrients can be returned by artificial fertilization and by plowing under crops, it is very expensive to replace the physical body of the soil. A cubic yard of earth weighs more than a ton. Exposed to wind and rain, tons of topsoil can be carried away in a single day.

Water erosion has been particularly serious in the Southeast where climate and terrain combine to make traditional methods of cultivation hard on soils. In Mississippi, for example, a Southern

Forest Experiment Station study shows that 6 inches of topsoil will be carried off of a 10 percent slope in 10 years, if planted to cotton with the rows running up and down the slope; planted to Bermuda grass it would take 10,000 years to do the same damage.

Leaching constitutes another threat to soils. The rains soaking through the upper horizons dissolve and carry away through underground channels the soluble mineral and organic matter essential to plant growth. Again the South is particularly exposed to this hazard because of its long, mild winters. The snow and ice which lock up the soils of the lands farther north are unknown here. As long as the topsoil is intact, the loss can be made good, in part, at least, and at a heavy cost, by the application of commercial fertilizers. Unfortunately these same leaching rains, when they fall on unprotected hillsides, carry off in muddy torrents the precious topsoil itself. In the process navigable streams are destroyed and fertile bottom lands are flooded, and, in time,<sup>4</sup> left buried under sterile sands and silt.

In the High Plains of the West, between the 100th meridian and the foothills of the Rockies, wind erosion plays the destructive role which water erosion plays in areas of more abundant rainfall. The plow that broke the western plains to wheat exposed millions of acres of natural grassland to this menace.

**Soil destruction violates the principle of responsibility.** Farm practices which needlessly cause erosion violate the *principle of responsibility*. Unaided, private enterprise cannot stop the process, because the control mechanism at its disposal is inadequate to the task. The price mechanism can neither measure the indirect costs, the damages imposed on neighboring lands, the destruction of navigable streams, the shortened economic life of dams and power plants, nor impose compensation on the responsible parties. If it could, soil erosion would not be a social problem. The offenders would soon be forced into bankruptcy and eliminated. Since it cannot, the State must intervene.

*The negative approach.* Two very different remedies are possible. One is negative, the other is positive. Under the negative approach farmers are told not what they must do, not how they must cultivate their lands, but what they must not do. This approach calls for careful land surveys, land inventorying, land classification based on soil, topography, and climatic conditions, and the outlawing in the various land-use districts of practices that are un-

<sup>4</sup> The time period may be very long. To this day the delta lands of the Nile are annually enriched by silting. But what they gain other lands lose.

necessarily hard on soil. This negative approach involves rural land zoning comparable to the urban zoning now in general use in many of our larger cities. This procedure is entirely consistent with the operating principles of a market economy and involves no improper infringement on legitimate private rights in land. It is also economical on the public purse, since no compensation is involved. It is, however, slow, since zoning is a state function and, in a democratic society, it can be invoked only in those areas where local public opinion has come to understand and approve.

*The positive approach.* Under the positive approach the government tells the farmer what practices he should follow. The state governments can do this under the police power; the federal government cannot. Undertaken by the states, this approach could be economical, but it would be as slow as the negative approach, since it too would involve the preliminary development of the necessary local public support in each of the 48 states.

Under the New Deal the positive approach was adopted, and, with a view to getting around the Constitutional limitations on the federal power to intervene in matters reserved to the states, and to making the program acceptable to farmers, the decision was made to pay farmers to adopt soil-conserving practices or to continue the practices where they were already in use. Compliance payments were also defended as a means of providing farmers with parity incomes.

Responsibility for the federal conservation program is divided between the Soil Conservation Service (SCS) and the Production and Marketing Administration (PMA).

The SCS is primarily a planning agency. It assists the local farmers to develop detailed land improvement programs based on careful land inventory and land classification maps. These maps show the highest and best use of every type of land found within the district in which the work is carried on. The Service assists in the map work and recommends the types of soil and water conservation practices best suited to each piece of land. More than 50 practices have been developed by the Service.

The work of the SCS depends heavily on local initiatives. The farmers in each state must secure the passage of a state conservation law, organize local soil conservation districts, and request the assistance of the federal service. By the end of 1950 every state had passed the necessary legislation and almost 5 million farms in over 2,300 districts were eligible for assistance under the program. Es-

entially the SCS mobilizes the best available technical competence and places it at the disposal of farmers wherever they have shown sufficient interest to organize themselves and assume responsibility for the carrying out of a conservation plan.

It is doubtful whether local farmers would cooperate as fully as they have with the SCS were it not for the fact that the Federal Government pays part of the costs of approved conservation practices. These payments are made by the Production and Marketing Administration. Most of these payments are made to farmers within the state conservation districts, but the Administration is also authorized to make payments to individual farmers whose lands are not within any district. SCS, however, must approve all the practices for which compliance payments are made. In 1951 over a quarter of a billion dollars was appropriated for this work. From its inception to the end of 1951, \$2.6 billion of federal funds had been spent on this program.

**Appraisal.** The federal conservation program has been valuable. The public has been made aware of the damage being done to our soils. Compliance payments have speeded up the adoption of soil-building practices. Our knowledge of effective soil control methods has been increased. From this point of view, the expenditures may be likened to those for adult education and for research and the dissemination of knowledge. All these results belong on the credit side of the ledger.

On the debit side are the costs and the threat to democratic institutions, our federal form of government, and our private and voluntary enterprise system.

The costs are becoming increasingly disproportionate to the general benefits. It seems probable that the majority of farmers would continue most of the practices even though the benefit payments ceased. Yet the list of approved practices grows longer, and the compliance payments rise as the need for them declines. We are confronted here with a subtle form of political corruption that is peculiarly damaging to the moral health of a democratic society. Men seeking public office use the taxpayers' money to buy the farmers' votes.

In the process federal officials are determining, in more and more detail, managerial decisions which should be left to the American farmer himself. The federal power to spend is eroding the political independence of the states and the moral integrity of the American farmer. Much can be said for the program as an emergency meas-

ure, but the emergency has passed. It is time to return the problem to the states.

### TENANCY REFORM AND FARM OWNERSHIP

The need for tenancy reform was discussed in the preceding chapter. Here too the New Deal intervened. The federal program for improving tenancy and promoting farm ownership is now concentrated in the Farmers' Home Administration to which reference has already been made. In connection with its operating loans to tenants the local representatives of the FHA encourage the substitution of written leases for the usual oral one and recommend the inclusion of clauses to provide compensation for unexhausted improvements and for the local arbitration of differences between landlords and tenants regarding the interpretation of their respective responsibilities.

The farm purchase loans of the FHA are, as the name indicates, designed to enable tenants, croppers, and hired workers to become owners. The purpose of the purchase loans is to demonstrate that a poor farmer without access to normal lines of credit can earn enough, if he will work hard and follow sound farm practices, to support his family and work himself out of debt.

**Appraisal.** These programs have been administered on too limited a scale to have had much effect on the general situation. This is particularly true of the land purchase program. In 1950 only some \$15 million was loaned for this purpose. This is fortunate, for if the program were carried out on the scale advocated at one time by some enthusiasts in the Department of Agriculture,<sup>5</sup> the resulting rise in land values would have saddled the borrowers with a fixed interest charge that might have made their situation worse than that of tenants. On the scale on which these programs have been operated they may have been useful as practical demonstrations, but the need for them would appear to have passed with the emergency which called them into existence.

### REVISING OUR FEDERAL FARM PROGRAM

Existing federal farm aids are inconsistent with our federal form of government and with the operating requirements of an effective market economy. Nor are they in the interest of farmers themselves, particularly in periods of high general activity. The very

<sup>5</sup> A former director of the program, writing in the official 1940 *Yearbook of Agriculture*, advocated a program that was designed to cut tenancy in half over a 25-year period at a cost of about \$7 billion.

forces which make farmers vulnerable in periods of general depression work in their favor in prosperous times. It is precisely in such times that farmers need the directives and incentives provided by free market prices. A controlled agriculture and a powerful trade union movement have introduced extreme rigidities into the American economy which will require, in the future, as in the past, repeated doses of inflation if the economy as a whole is to operate at a satisfactory level. There is, however, a limit to the amount of inflation a market economy can absorb.

All that the farmer can reasonably ask is that there should be stand-by arrangements at hand to be brought into action in the event of a general recession.

A constructive farm program should be tailored to normal times and to the requirements of our commercial farmers. Provisions for emergencies should be dealt with separately, whereas the needs of subsistence farmers in certain poor land areas call for special measures. Although this submarginal group accounts for about one-sixth of all farmers, it accounts for only one-thirtieth of all farm products sold in commercial markets. Their needs are discussed in a later chapter.

**An agricultural program for normal times.** The work of the Farmers' Home Administration should be completely eliminated. The legitimate credit needs of all those who, in the general interest, should remain in agriculture are adequately served by private investors, the commercial banks, and the financial agencies of the Farm Credit Administration. Subsistence farmers should not be encouraged to continue their impossible struggle to wrest a living from their small submarginal farms by cheap federal credit and federal subsidies.

The Soil Conservation Service should be continued. Appropriations even more generous than at present could well be made for its fundamental research and for its work on land inventory and land classification at the state level. The task of converting the Service's findings into action programs should be returned to the State Colleges of Agriculture and their Extension Services and the County Agents. The Production and Marketing Administration, like the Farmers' Home Administration, has outlived its usefulness.

The contribution which improved tenancy arrangements, rural zoning, and public land acquisitions can make to soil conservation would be appropriate matters for the Soil Conservation Service to investigate. These investigations would undoubtedly reveal the need for legislation to enforce the *principle of responsibility* as it

applies to property rights in land. The drafting of recommendations and the formulation of model laws would be useful and appropriate federal activities. The final responsibility, however, for the enactment of legislation should be left to the states. It should also be left to the individual states to decide whether the use of locally collected taxes to pay farmers to adopt specified soil-building practices was justified.

There appears to be no need for any major modifications in the activities of the Farm Credit Administration. In times of deep depression, when the special measures to be discussed later come into play, the Federal Reserve Banks might be authorized to buy new issues of the Farm Land Banks and the Intermediate Credit Banks and to support their outstanding obligations. This would prevent the breakdown of agricultural credit for limited and critical periods.

The whole complicated and costly apparatus of acreage allotments, price supports, nonrecourse loans, marketing agreements and orders, and diversionary operations should be abandoned. This negative action would suffice to restore competition within the agricultural sector of the economy. Needless to say, the federal government should also use its great powers to reimpose and maintain competition in other sectors of the economy where monopolistic practices gain a footing more easily.

**An agricultural program for depression periods.** The extreme sensitivity of agriculture to booms and depressions may justify the giving of some form of advance assurance to farmers that federal help will be forthcoming in times of serious depression. Farm economists are in general agreement on this point. They are not in agreement, however, regarding the form the assurance should take.

One suggestion is that the federal government should continue to provide minimum price guarantees, expressed as a percentage of a modernized "parity" formula, such as that used in the 1948 Agricultural Act. The percent of parity would be set so low that the guarantee would come into effect only in periods of deep and general depression. In normal times farmers would operate on the basis of free prices. The guaranteed prices, it is argued, would give farmers the same protection which moderate unemployment compensation and a low minimum wage law give non-farm workers.

This solution is compatible with the requirements of a com-

petitive market economy. Whether or not it is politically realistic is beyond the competence of an economist to answer.

Another suggestion is that the federal government should avoid all price supports but agree to make substantial payments to farmers whenever a general business recession went beyond some defined degree of severity. The enabling legislation would define the exact method of determining the critical recession point and would require the Treasury to start the flow of payments immediately thereafter and to discontinue them with equal promptitude when recovery had brought the economy back to the critical point. The payments would not be contingent on any specific performance by farmers, and since they would be irregular and contingent, they would not get capitalized into land values.

This proposal, which has the endorsement of a group of distinguished agricultural economists,<sup>6</sup> would, it is claimed, mitigate the severity of business depressions, avoid the need for the output restrictions which increase the real social costs of depressions, and preserve the flexible agricultural prices which are as necessary to efficient farming in bad times as they are in good times. The sponsors declare that they have satisfied themselves that the plan is workable from the administrative point of view.

This proposal is superior to the previous one from a narrowly economic point of view. But is it politically practical? Does it adequately recognize the dangers of government checks going to millions of individual farmers in a democratic society? Only actual experience can provide an answer to these questions.<sup>7</sup>

### Questions:

1. "The fact that public and cooperative telephone companies operating in rural areas are able to secure funds at lower rates than private telephone companies shows that this is an activity which can be carried on more economically by government than by private enterprise." Discuss critically.
2. What do you think would be the effect on the productivity of the American economy of a guarantee by the federal government of parity prices to *all* industries based on the price relationships of 1909-1914?

<sup>6</sup> Farm Foundation, *Turning the Spotlight on Farm Policy* (1952).

<sup>7</sup> For a much simpler method of protecting individuals from the uncertainties of a changing world, see pp. 522-3.

3. Upon what constitutional powers does the federal government rely in the execution of its acreage restriction and price support programs?
4. Indicate the reasons why acreage restrictions have not been very successful in reducing agricultural output.
5. "The existing American program would never have been adopted had the elasticity of demand for farm products been greater than unity." Indicate with supporting reasons your agreement or disagreement with this statement.
6. A public price-support program which sets minimum prices above those which would "clear the market" forces the government to hold large surpluses. Indicate the ways in which the federal government has tried (a) to prevent the emergence of surpluses and (b) to get rid of the surpluses.
7. Many hold that the adoption of free trade by the United States at the present time is in the national interest. Assuming for the moment that this is correct, can the American Government adopt free trade and, at the same time, maintain its present domestic farm program?
8. Explain the reasoning behind the statement in the text that in the course of time any given level of farm aid tends to lose its effectiveness.
9. "The operating requirements of the private enterprise system justify public interventions to stop needless soil destruction." Give the reasoning in support of this statement and indicate whether this reasoning necessarily justifies the existing federal soil conservation program.

PART EIGHT

*Social Security*



## *Social Security and Private Enterprise*

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SECURITY occupies an unstable position in the hierarchy of wants of the individual. Psychologists tell us that the normal growth of the child depends as much upon the ability of the family to give him a sense of being loved and wanted, as on its ability to provide him with food, clothing, and shelter. As he grows up, the importance of security declines. He wants excitement, change, adventure. Then in his maturity, when he has a wife and young people to look out for, when his earning power has declined or ceased, he again craves security.

### THE SECURITY CONCEPT ANALYZED

Security is thus neither a simple nor a stable value. It depends upon attitudes, expectations, internal resources of an intellectual and spiritual nature, and a host of other intangibles. Continuity of income, or knowledge that one's daily bread will be forthcoming, is only one aspect, and frequently one of the least important aspects, of the problem of security.<sup>1</sup> Yet it is the one with which the term *social security* has come to be associated, and with which we shall be concerned in this and the next chapter.

The term *social security* has two meanings. It refers to the group feeling of well being that is supposed to exist when the members of the group have now, and have reason to believe that they will have

<sup>1</sup> Bertrand Russell, *Why Men Fight: A Method of Abolishing the International Duel*, The Century Co., New York: 1917. Mr. Russell explained the enthusiasm with which young men in France, Germany, and England rushed to the colors at the outset of World War I as due to a desire to escape from the drab security which modern industrialism had made possible.

in the future, some minimum income adequate to meet some undefined level of need. It also refers to the battery of measures which governments can take to assure that everyone shall have as a right this minimum income without which he would become dependent upon others. The main purpose of a social security program in a predominantly private enterprise economy is to introduce an element of income continuity that will remove the sense of personal insecurity regarded as an undesirable feature of this form of economic organization.

**The principal causes of insecurity.** The things that can lead to dependency and hence to a sense of insecurity are legion. It is generally recognized, however, that there are seven principal causes of economic insecurity: old age, permanent and total disability, industrial injuries and accidents, off-the-job injuries and illness, medical expenses, and unemployment. When the breadwinners in a family are unable to work, all those dependent upon them are affected. On the other hand, the medical expenses connected with the illnesses, injuries, and disabilities of the nonbreadwinners in a household may bring the family into need, even though the earned income of the family is unaffected.

The success of any public program for assuring to each household a level of income adequate to take care of the foregoing situations depends upon the level of income protection aimed at relative to the productivity of the economy taken as a whole, and upon the effects of the public measures on the ability and the willingness of individuals to do as much of the job as possible for themselves.

**Insecurity in industrial and agrarian countries.** The level of income continuity aimed at depends on what public opinion regards as the basic needs of the individual. Naturally the level aimed at will tend to be much higher in wealthy industrial countries than in poor countries. But what is surprising, at first glance, is the fact that the proportion of people "in need" tends to be greater in wealthy industrial countries than in poor agrarian countries.

This is due, in part, to differences in popular conceptions of need. In part, it is due to the fact that many more individuals in highly industrialized countries are dependent for their daily bread on the smooth functioning of the economy and on their ability to work and to find work than is the case in poor and predominantly agrarian countries.

In an agrarian country the farm largely takes care of its own. It provides suitable work opportunities for old and young and food and shelter for all in sickness and in health. The toddler can feed

the chickens, collect the eggs, lead the cow to pasture, and tend the sheep. As he grows to manhood he takes on heavier jobs; as old age comes on he returns to the tasks of his infancy. On the individual farm the communist principle, "from each according to his ability, to each according to his need," is workable. The authority of the head of the household, his intimate knowledge of the needs and capacities of the members of the family, and the sense of family solidarity suffice to prevent abuses. The system never provides much, but what it does provide is reasonably assured. When it breaks down as a result of drought, flood, pests, or some other natural event, there is not enough surplus to support an organized security program.

In industrial countries in which only a small fraction of the people live on farms, the dependency of people on one another and upon money incomes is much greater. A serious breakdown anywhere cuts off the incomes of tens of thousands. Accidents, sickness, and old age do the same. Very few have the liquid savings adequate to tide themselves over any considerable period of interrupted earnings. Within a few days or weeks they are forced to fall back on relatives, friends, neighbors, private charity, or public relief.

The complex division of labor and the narrow specialization characteristic of highly industrialized countries thus produces a high but insecure level of living and, at the same time, a widespread sense of personal insecurity.

**The ultimate basis of security is production.** No society can be secure if the people consume more than they produce. We have seen that any people can do this for a time by not making good the annual wear and tear and using up the durable wealth accumulated over the past. Any public guarantee of security which leads to this result can end only in mass insecurity. Many thoughtful observers believe that some of the Western European social security programs may be doing just this. Real social security depends ultimately upon the capacity of an economic system to maintain a rate of capital formation at least as rapid as its rate of population growth and to produce continuously the things which the beneficiaries of its social security program consume.

**The correct objectives: Adjustment and income continuity.** Obviously the load which a social security program must carry will be minimized if all employable persons are continuously and usefully employed. Employment for employment's sake, however, is not the answer, if the result is the production of things which no

one wants, or which are less wanted than things which might otherwise have been produced. A constructive program for a private enterprise society should aim at continuity of income—at a level which does not seriously retard net capital formation—provided in such a way as to make it easier for individuals to adjust to the changing requirements of the market. If a social security program can contribute to “humanizing” the costs of adjustment, and hence reduce the natural reluctance of people to alter their ways of life, there is a place for it in a society based on private enterprise.

An analogy from the circus<sup>2</sup> may help make clear the role which a social security program could play in a responsible and dynamic capitalistic society. These measures can be the net which management throws under the ring in which the acrobats perform. Occasionally a performer falls, but, after bouncing about on the net a few times, he will climb back on the trapeze or the tight rope. Spectators would be few in number if the management insisted upon heightening the suspense by strewing the ring with boulders to guarantee the destruction of the hapless acrobat whose sense of timing and balance slackened for even a split second. Modern man has no desire to substitute the Roman arena for the modern circus. But the circus would have small appeal if management insisted upon strapping the performers to their apparatus. Social security measures, in other words, must not be used to prevent man from falling. Its function is their rehabilitation and their restoration to the working force of the nation and to assisting them to provide for their old age. If all risk is removed, free society is dead. That the search for excessive individual security through government can lead only to the massive insecurity of whole nations is abundantly proved by the events of the recent past. Social security is not possible in a rigid and inflexible world. It might be well to eliminate the word “security” from the vocabulary of government, and substitute in its place the word “adjustment.”

### RESPONSIBILITY FOR SECURITY

**The traditional view.** Until quite recently it was taken for granted that the responsibility for security in a free society rested primarily with the individual. The family, near relatives, friends, and neighbors, and finally organized private charities such as the

<sup>2</sup> This analogy, together with much of the argument in this chapter, is to be found in John V. Van Sickle's *Planning for the South: An Inquiry into the Economics of Regionalism*, The Vanderbilt University Press, Nashville: 1943, Ch. VII.

Red Cross and the Community Chest (all volunteer sources of help) were seen as the second line of defense against insecurity.

As we shall see presently, this view no longer commands the respect it once did. Nonetheless a very good case can still be made for the proposition that the responsibility for security is *primarily* personal and that the burden of proof is on any individual who asks to be relieved of this responsibility.

*The responsibility of the individual.* Most young people in any society are able to provide themselves and those dependent upon them with food, clothing, shelter, education, and medical care over their lifetimes. If this were not true there would be no possibility of a social security program. If the majority of householders cannot earn what public opinion regards as essential, then the amount which would have to be taken from the minority would be so large as to destroy the incentives on which an enterprise economy depends. When politicians say, as they frequently do at election time, that the majority of the people of the United States need public help, they are really saying that the American people, taken as a whole, are entitled to consume more than they produce, and that it is the duty of the State to make this possible.

*Methods of meeting individual responsibility.* There are a number of ways in which an individual can meet his responsibility. First, he must be willing to take a new job or to move if changes in consumer demand or in methods of production have destroyed the need for his old job. Second, he must be willing to live within his income in periods when he has work. Third, he must use the difference to take care of the periods when his earned income will not be enough to meet his essential needs and those of his family. One way of doing this is to build up a savings account. Another way is to take advantage of the many investment outlets that are available in an enterprise society in which the corporate form of organization is well developed. Finally—and this is most important for persons of moderate means—he can insure himself against all or part of the risks that threaten to force him into dependency.

*The importance of the insurance principle.* The insurance principle takes advantage of what Winston Churchill has called “the magic of averages.” There are so many events affecting people which can be predicted with great accuracy as far as large groups are concerned. On which particular members of the group the loss will fall is not predictable. If each member of the group will pay into a central fund his share of the total expected group loss, there

will be enough in the fund to reimburse in their entireties the losses which fall on particular individuals in the group.

*Its role in modern capitalism.* Modern capitalism makes great use of the insurance principle. Home-ownership would be very risky were it not for the fact that the individual owner can insure himself, for a small annual charge, against the total or partial loss of his house by fire, storm, etc., despite the fact that, as far as anyone knows, the house may be totally destroyed the day after the writing of the insurance policy. In similar fashion business firms can insure their offices and factories, their machinery and equipment, their inventories, their goods in transit, their bills receivable. The individual can insure himself against the loss of income and the heavy medical expenses resulting from accidents, sickness, and old age; he can protect his dependents from need by taking out a life insurance policy payable at his death. In brief, the opportunities for protecting one's self, one's dependents, and one's business against heavy and unpredictable losses by small and regular payments out of current income are many and varied. A large number of private companies have developed to provide this protection.

**The secondary line of defense.** Unfortunately many people, and usually the very ones least able to absorb heavy losses, fail to save or invest or to take advantage of voluntary insurance facilities. When misfortune strikes, they have to be helped. In societies in which the family is the basic social unit, help has always come from other members of the family or close relatives. Parents help their children; children help their parents. Uncles, aunts, nephews, grandparents, all step into the breach. The more geographically mobile a population, the weaker is the family as a social unit and the less it can be relied upon to help the unfortunate or the improvident over difficult times. Private charity long played a very important role in this country, but of recent years this source of help has declined in importance, partly because of the heavy taxes levied on the well-to-do and partly because of the shift in social philosophy to which reference will be made shortly. The weakening of family responsibility and the decline in the role of private charity have increasingly brought government into the picture.

*Government: the last line of defense.* When government undertakes to provide for those who fail to provide for themselves, it has nothing to give except what it takes from those who have been able and willing to take care of themselves. This suggests that the incursion of government into the security field should proceed cautiously and with recognition that if it tries to do too much for

those it is trying to help it may end by bringing insecurity to all.

*The supporting social philosophy.* The emphasis upon individual responsibility rested upon a view of human nature that was at once cynical and optimistic. It was taken for granted that most people, or at least a considerable minority, were lazy and improvident; that only the fear of want for themselves and their families would keep them at work, induce them to limit the size of their families, and to save for a rainy day. Any systematic and compulsory taking from the industrious, the provident, and the ambitious to "coddle" the shiftless and the improvident would destroy incentives, lead to an increase in the size and a deterioration in the quality of the population, and result in social conflict and general poverty. It was also taken for granted, however, and this was the optimistic ingredient, that man is a sympathetic animal and that he could be counted upon to provide voluntarily for all cases of genuine need.

*The new view.* The old view is now very much in eclipse. The modern view is that government must assume a major role in the social security field and that only central governments can satisfactorily do this. The dramatic entrance of our federal government during the 1930s into the field long reserved to private charity and local public relief was a consequence of The Great Depression, but its failure to withdraw with the return of good times appears to be due to the emergence of a new social philosophy and a new economics.

*The new social philosophy.* The new view is that man is reasonably good, provident, and industrious, and that his antisocial behavior grows out of his sense of insecurity. Relieve him of this fear, and his full energies will be released. The make-work rules, the strikes and jurisdictional disputes, and the desire of farmers for price supports are all regarded as expressions of this fear. They will disappear, or at least be much more easily checked, if ways can be found of assuring to all, as a matter of right, some modest level of cash income related to need and not to ability to earn. The desire for more than this modest minimum, it is held, will amply suffice to encourage the traditional virtues of thrift and industry and to incite the imaginative and the daring to pioneer new and better methods of production.

Just as the terms "relief" and "charity" reflected the old social philosophy, so the term "social security" expresses the new.

*The new economics.* Recent developments in economic theory have come to the support of the new theory of human behavior.

Adherents of what we have called the orthodox theory of the business cycle hold that a market economy which depends for its money supply on a fractional reserve banking system is not inherently self-stabilizing. Rather it exhibits tendencies to cyclical fluctuations in output and employment. Economists of Keynesian persuasion agree with this diagnosis, but, in addition, claim that the inequalities which the system generates may result in a volume of undigestible savings which produce *chronic* unemployment.

The orthodox theory leads to the conclusion that public measures which assist people to spread their earned claims to money over their entire lives will stabilize their spending and contribute to the moderation of business fluctuations. The Keynesian theory accepts this conclusion but goes further and calls for heavy taxes on the well-to-do and their transfer to the poor through expenditures which will increase the security, the well being, and the productive effectiveness of those at lower income levels.

These new views regarding human nature and the way a private enterprise economy operates provide the theoretical underpinning for contemporary social security programs. The orthodox business cycle theory supports the use of the contributory insurance principle as a means of helping people spread their money claims over time so that they may look forward to income as a right at such times as they are not in a position to earn income. The Keynesian theory, stressing the value of equalization *per se*, favors greater reliance on progressive taxes, and less reliance on insurance contributions collected from the poor, as the appropriate method of financing a social security program. These two economic theories thus give us two approaches to the security problem—the *insurance approach* and the *welfare approach*.

### THE SOCIAL INSURANCES

For better or worse, modern governments are going to help the indigent, and the aid program is going to involve some combination of these two approaches. Either money is going to be taken from those who are not in need and given to those who are, *on the basis of demonstrated need*, or all of the people who are not in need at any given time are going to be forced to contribute regularly to insurance funds to provide some minimum income, *regardless of need*, to all whose regular incomes are interrupted, or who find themselves confronted with large and unbudgetable claims (hospital expenses, for example). The first is the welfare or assistance approach; the second is the compulsory insurance approach. The

more the insurance approach is used to force people to save during such times as their earned incomes permit, the less will be the residual burden of assistance. In this section we propose (a) to examine the case for the compulsory social insurances; (b) to note some limitations on the use of the insurance principle; and finally (c) to discuss the problem of financing the social insurances.

**The case for the compulsory insurances.** In general legal compulsions run counter to the operating principles and still more to the philosophy of the private enterprise system. In this system, with its emphasis on voluntarism, the sentiment of charity is supposed to be sufficient to take care of all cases of genuine need. Fortunately, however, we do not live in the kind of completely logical world in which the improvident and the unfortunate would be permitted to die if family, friends, or others did not voluntarily come to their assistance. The risk is too great that worthy cases would be overlooked. And the burden of helping is too unevenly distributed. Hence in almost all societies the group as a whole assumes some responsibility for those in need. Is it not logical, then, to say that the provident (or fortunate) majority is entitled to protect its own interests by forcing the less provident (or less fortunate) minority to save within the limits of their ability for the rainy days that are bound to come from time to time? May we not regard this as a method of enforcing the *principle of responsibility*? The fact that such forced savings stabilize individual spending over time and hence serve to improve the performance of the economy strengthens the case for trying to incorporate the insurance principle into a social security program. If, in addition, the increased continuity of income can be provided in such fashion as to make less painful the frequent small adjustments that individuals must make in a dynamic and expanding economy, and hence reduce the popular resistance to change, then a contributory social insurance program has a still stronger claim to be regarded as consistent with the operating requirements of an enterprise economy.

**The limitations of the compulsory insurances.** Some of the results of insecurity cannot be reached at all through the compulsory insurances. Those already too old to work, those already permanently disabled, the congenitally handicapped cannot be expected to make payments into a contributory insurance program. Other results of insecurity cannot be safely covered in full because the insurances are not entirely neutral in their effects, even where the beneficiaries pay all of the costs. Fire insurance companies

have learned that full protection against fire losses is an invitation to arson. Life insurance experiments with permanent invalidity insurance have shown that "the availability . . . of a regular and assured income tends to create a powerful psychological barrier to the claimant's will to recover or be rehabilitated." Similarly, immediate and full protection against loss of earnings due to unemployment would make idleness attractive, invite strikes for better wages and working conditions, and necessitate compulsory labor legislation. Reimbursement of *all* medical costs would result in frivolous demands for medical services and medical supplies.

In brief, the probability of abuses may make it socially inexpedient to use the insurance approach to provide *full* reimbursement of losses in some cases where this technique would otherwise be applicable.

A third limitation arises out of the fact that, even where losses of income are technically insurable, the annual deductions would be so heavy as to force many otherwise self-supporting persons into the indigency group. Such persons can pay only part of the full costs of protection via the insurance route.

Nonetheless a compulsory contributory program can reach more people than can a private program. A private program must pay its own way. It can cover only those who are able and willing to pay the full actuarial costs of the risks against which they seek protection. A public program is not so limited. It can make the insured group as a whole pay the full costs but distribute the burden with some reference to ability to pay. By thus reducing the burden on persons of small incomes it is in a position to force more people into the program than would otherwise be politically possible. Or it can charge the beneficiaries part of the costs and spread the balance over the general public through a tax paid by citizens generally or through a tax on business firms. (The assumption here is that the firms will pass the tax on to consumers in the form of higher prices, in which case it becomes an indirect tax, or pass it back to the workers in the form of lower wages, in which case the workers will, in fact, be paying a higher insurance premium than they realize.)

**The reserve problem.** There is a large literature dealing with the problem of financing a compulsory insurance program. Should the level of the annual charges be determined as they must be determined by private insurance companies? When a private insurance company makes a contract to pay an individual a specified monthly sum beginning at a later date and running to death (i.e., an an-

nuity), it charges a flat monthly premium. The premium is based on the annuitant's age, the probability of his surviving to the beginning of the annuity period, the probable number of years from that date to his death, and the interest the company expects to earn by investing the premiums. These are expected to build up with the aid of compound interest a sum sufficient to pay the covenanted annuity, plus administrative costs and a profit for the company.

If the majority of the policy holders are young at the inception of the program, annual contributions will greatly exceed annuity payments for a number of years. The company will accumulate large reserves which it will invest with the dual purpose of protecting the claims of the policy holders and earning the rate of interest used in figuring the relationship between premiums and annuities. The same accumulation occurs in connection with life insurance policies.

The accumulation problem is not involved in the case of fire, theft, accident, and most other types of private insurance programs. Past experience and "the miracle of averages" permit of a fairly accurate estimate of the annual losses. Hence the current premiums need only cover operating expenses, profits, and these expected losses. The purpose of reserves in such cases is to protect the companies against the unexpectedly heavy losses that may occur in any one year.

A social insurance program involves a number of different risks. Assuming the correctness of the reserve principle, most of them do not require the building up of any large reserves. It is only with respect to the "old-age and survivors benefits" part of the program that the desirability of building up a large reserve arises.

The issue here under consideration can be posed in the form of a question. What premium policy is appropriate for a compulsory old-age annuity program in a country in which the proportion of old people will be considerably greater in the future than at the time the program is inaugurated? Should the annual charge be just sufficient to cover the administration and the annual payments to those retiring from the labor force on account of age or should the charge be designed to build up a large reserve? The policy actually adopted in the United States in 1935 called for the building up of a very large reserve. In addition, since the program as a whole was intended to be self-supporting, the annuities for older "covered" workers had to be kept very low, and no provision at all was made for those who had already retired on account of age or who would retire later from occupations that were not included in

the program. The needy within these last two groups were to be taken care of through a jointly financed federal-state public assistance program.

The unexpected complications that followed from this decision will be described in the next chapter. Our concern here is confined entirely to the wisdom of the decision to build up a large reserve in connection with the old-age-insurance part of the compulsory insurance program.

**Objections to a large reserve.** The case for a large reserve derives, as we have seen, from the practice of the private insurance companies. But a comprehensive and compulsory public program is very different from a limited and private one. Hence it does not follow that the procedure which is correct for the one is correct for the other. There are at least three reasons why the "old-age and survivors insurance benefits" part of our social security program should be financed on a pay-as-you-go basis and not on the reserve accumulation basis.

(1) *It creates an illusion.* The reserve principle cannot accomplish its alleged purpose of lightening the future burden of supporting more old people. This is because the reserves must be invested exclusively in government bonds. These bonds do not automatically produce interest. The interest will be forthcoming only if the government raises additional taxes. What is saved in premiums must be paid for in taxes. Reserve or no reserve, the self-supporting in each generation must take care of their old people. All that the reserve really does is alter the distribution of the burden, putting more of it on individuals as taxpayers and less on them as premium payers. If the proportion of the population over 65 is going to be much greater 50 years hence than it is today (and the experts assure us it will be), then the burden of supporting this group is also going to be much greater. One of the objectionable features of a growing reserve is that it obscures this unpleasant fact. It creates an illusion.

(2) *It encourages overgenerous annuities.* The illusion is unfortunate because it weakens popular resistance to the demand for ever higher annuities. As we shall see presently, about one-fourth of the civilian labor force is not under our compulsory old-age insurance program. Their inclusion now with annuity claims as high as those of persons in the program from the beginning, plus the inclusion of the needy aged now receiving federal-state old-age benefits, would stop all further reserve accumulations, strengthen the popular resistance to the constant pressure for higher annuities

(this is on the assumption that after the change any increase in the level of annuities would require an immediate increase in the level of premiums), shorten the period during which it is going to be necessary to maintain a separate relief program for the needy aged, and protect the next generation from being committed to provide for its old people on a more generous scale than they can afford.

(3) *It retards the productive growth of the national economy.* The great increase in the proportion of the aged is, in any event, going to put a heavy burden on the next generation. The best way for this generation to help the next bear this burden is to save and invest more now so as to pass on a more productive and better-equipped economy and a healthier, happier, and more proficient work force. Extravagant public expenditures cut down productive investment. A growing reserve invites precisely this kind of unproductive public expenditure. The annual excess of contributions over benefits virtually forces the government to create new debt since the trustees of the fund are forbidden to invest in the securities of private companies. The annual excess could, of course, be invested in old obligations, thereby reducing the amount of the national debt in the hands of the general public. But this course is not likely to be pursued for any great length of time. Debt reduction is never as popular as increased spending, particularly when the new spending does not involve new taxes. Under these circumstances the annual accumulations represent a direct invitation to pursue a peculiarly insidious and objectionable form of invisible financing. The government satisfies its needs without having to "go to the market" or even to the Federal Reserve Banks.

This objection is not valid to the extent that the government's use of the annual surpluses is just as productive as the uses to which individuals would have put the money had it been returned to them in the form of a reduction in the publicly held debt or in the taxes paid to support the needy aged. Some government expenditures are as productive or even more productive than equivalent private investments. Such expenditures increase future capacity to produce and hence increase the capacity of future generations to support the growing burden of old age dependency. But such constructive expenditures are likely to be made anyway. A large reserve is an open invitation to undertake expenditures which tend to increase present consumption at the expense of capital formation.

If this part of a social security program should be financed on a

pay-as-you-go basis, it follows that the whole program should be so financed. The modifications in our own social security program which will be suggested in the next chapter are based on this analysis of the reserve problem.

### THE WELFARE PRINCIPLE

For those who object to the relatively large income inequalities characteristic of an enterprise economy, the insurance approach to social security has little appeal. It appears to involve an acceptance of inequality, nay, a willingness to increase it by forcing persons with very low incomes to save for contingencies which the well-to-do could provide for at less sacrifice. Consequently advocates of the welfare approach prefer a program which is financed by a direct and progressive income tax based on *ability to pay*, rather than one financed by a flat premium based on *the benefit principle*. Further they would use the proceeds of the tax not merely to make good the income inadequacies arising out of the seven risks listed at the beginning of this chapter, but also to raise all family incomes to some level which they regard as necessary for health, efficiency, and general well being.

**Possibilities and dangers.** The economist, as economist, cannot say definitely that such a program is inconsistent with the operating requirements of an enterprise economy. The political scientist and the psychologist are better equipped to provide us with the answer. If they can assure us that it is politically possible for a democratic government to guarantee a minimum cash income to all citizens, and in addition relieve all citizens of heavy and irregular expenses for such things as medical, hospital, and nursing care without capitulating to the inevitable pressures for more and more, then the economist would have to say that such a tax-financed program might be workable.

In that event it would be quite easy to imagine a broad security program of admirable simplicity. The federal government might, for example, issue weekly or monthly checks to *all* families in the United States, based on the requirements for a really Spartan existence. The only condition for eligibility would be the submission each year of a detailed family income tax declaration. The government would then levy a progressive income tax, which in the case of each family would begin with the amount received over and above the government annuity. Thus every family would be assured of a tax-free minimum income, which would vary with the size of the family. The income tax admittedly would have to be

heavy, but while we are allowing free play to our imaginations, we can also imagine some substantial savings: no more public works undertaken just for the sake of providing employment; no more minimum wage and hour laws; no more restrictive union agreements; no more agricultural price supports and acreage restriction programs; no more special programs for the needy aged, for dependent children, for the blind and the physically handicapped; no more tariffs to protect high-cost enterprises. In brief, one can imagine a highly competitive enterprise economy superimposed upon a thin cushion of guaranteed income. Such a program would render unnecessary a very large number of federal, state, and local jobs. The resulting reduction in public expenditures would partly offset the costs of the program.

But would a democratic people be so rational as to get rid of all the nonconforming interventions which we have examined in earlier chapters and those which we shall examine in the chapters that lie ahead? And are there sufficient checks and balances in the democratic processes to prevent the majority from pushing the guaranteed minimum so high that the taxes on the well-to-do minority would not destroy their willingness and their ability to provide the risk capital and the entrepreneurial direction which an enterprise economy must have if it is to satisfy the great expectations created by its past performance?

When our colleagues, the political scientists and the psychologists, can convince us that such a program would not be abused, we shall be ready to endorse the welfare approach to social security and urge that it be carried to its logical conclusion. Until then, our own view is that a reasonably adequate social security program can best be grafted onto an enterprise economy by emphasizing the insurance approach and by assigning as much of the public responsibility as possible to the states and the localities.

This last point—the desirability of returning more responsibility to the local units of government—seems to us to require amplification.

### **SOCIAL SECURITY AND FEDERALISM**

Earlier in this chapter we noted the tendency of central governments to assume more and more of the responsibility for the financing and administration of social security programs. Is this trend desirable or undesirable in terms of its effects on an enterprise economy?

The following considerations speak in favor of a strengthening

of local responsibility. Experimentation is encouraged. Mistakes affect local areas and can be corrected before they extend to the entire nation. Successes can be copied. Programs can be fitted to the needs of the several states. Efficiency and moderation are promoted by the constant and powerful pressures of interstate competition. An individual state cannot afford to provide benefits that increase the frequency and the duration of the events which cause interruptions of income. To do so would put its business firms at a competitive disadvantage in interstate as well as in intrastate markets.

There are disadvantages connected with the state-by-state approach. The risks of pioneering are great. If the program adds appreciably to business costs, firms will migrate and insecurity will be increased. The state-by-state approach may reduce population mobility. A worker in a state which provides unemployment compensation, sickness and accident benefits, and old-age annuities might hesitate to take a better job in a state without these security measures. Or the influx of workers from other states might force down wages and create unemployment.

But there are also disadvantages involved in turning the task over to the federal government. First, there is the loss of the advantage that comes from state experimentation. Second, there is a weakening of the restraints imposed by interstate competition. It can be argued, of course, that international economic competition will exercise the same restraining effects upon a central government that interstate competition does on state governments. But this does not necessarily follow. Central governments are not subject to the restraints which the American Constitution places upon the states. If a national welfare program prices business firms out of international markets and threatens them within their domestic markets, central governments can insulate their national markets by tariffs, quota, exchange controls, and restrictions on immigration. There is probably a cause-and-effect relationship between the development of national social security programs and the growth of protectionism and national self-sufficiency.<sup>3</sup> The reconciliation of national social security and international cooperation through trade is one of the unsolved problems of our times.

After this discussion of some of the issues of principle involved in governmental security programs we turn now to an examination of the American experiment.

<sup>3</sup> Gustav Stolper, *The German Economy, 1870-1940: Issues and Trends*, Reynal & Hitchcock, New York: 1940.

*Questions:*

1. Identify briefly (a) the sense in which the term "social security" is used in the text; (b) the principal causes for insecurity; and (c) ways in which individuals can provide security for themselves.
2. "The problem of individual insecurity simply does not exist in a socialist society." Argue for or against the correctness of this statement.
3. Defend or rebut the statement that the proportion of the people in need tends to be greater in wealthy industrial countries than in poor agrarian countries.
4. Identify the test which the text suggests for determining whether a social security program is consistent with the operating requirements of a private enterprise system.
5. "The task of helping the needy was long regarded as an exclusively local responsibility."
  - (a) Indicate the consistency of this position with the *then* prevailing social philosophy and the then dominant economic theory.
  - (b) Describe the changes in social philosophy and in economic theory that have led to general acceptance of the idea that the central government should assume a larger share of the responsibility.
  - (c) Indicate specifically the impact of Keynesian theory on recent developments in the social security field.
6. Present arguments for and against the proposition that a public and compulsory social security program is consistent with the operating requirements of a private enterprise system.
7. Present arguments for and against the proposition that a public and compulsory old-age and survivors insurance program should be financed on a pay-as-you-go and not on a reserve accumulation basis.
8. "The reconciliation of generous national social security programs with the requirements of the international division of labor is one of the unsolved problems of our times." Explain why the reconciliation has proved difficult.

## *The American Social Security Program*

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FOR many years past, public moneys have provided some elements of security to special groups. Needy war veterans have always had access to the public purse. Our federal government and many state and local governments have pension systems for their permanent employees and they usually pay salaries for limited periods of sickness. Most workers are now protected by compulsory industrial accident insurance. Groups of employees are covered against heavy hospital and medical expenses through voluntary payroll deduction programs. Millions of individual insurance policies provide some modest continuity of income for many, perhaps most of the middle-income group in the United States. Nonetheless, large numbers of the people live from pay day to pay day. Any untoward event forces them back on their more provident or more fortunate neighbors.

During The Great Depression which started in late 1929, the number needing aid mounted rapidly. The old methods of local help broke down. Many states were unable to pay their own employees or meet the interest on their public debts, let alone help their bankrupt cities, towns, and counties. An emergency of unprecedented severity had created a problem too big to be handled by local resources. Federal aid was essential.

The first response of the Administration then in power was to create a Reconstruction Finance Corporation (1932) with authority to lend to states, cities, and private business firms. The purpose of the loans was to enable the borrowers to maintain employment and thus to halt the mounting tide of need arising from unemployment.

There was no direct federal relief to persons, due to doubts regarding the constitutionality of such action. By the summer of 1932 the recession had been halted, but unemployment remained large and the need for help continued to grow as more and more families exhausted their savings. The November election of that year swept a new Administration into power, with a popular mandate to help people directly, and under a leadership which was not inhibited by the constitutional doubts of the outgoing Administration.

Large-scale direct relief and work relief programs were launched. Money was placed into the hands of farmers through the AAA as described in an earlier chapter. The anti-trust laws were suspended, and businessmen were forced (with very little holding back on their part) into combinations to restrict output, raise prices, and restore vanished profit margins. Unions were encouraged with a view to giving workers a share in these profits. The dollar was devalued, partly with a view to protecting the American market from inundation by foreign goods attracted by the higher prices which these salvaging operations were expected to provoke, and partly with a view to recapturing foreign markets lost to our exporters.

For reasons into which it is not necessary to enter here, the recovery proved slow and incomplete. Unemployment declined considerably, but remained at an unprecedentedly high level and millions continued in need of help. It is against this background that the social security program of 1935 must be examined.

### THE SOCIAL SECURITY ACT OF 1935

The social security program which was started in 1935 has been amended a number of times and now provides for nine distinct programs that can be conveniently grouped under the following three headings:

#### *Social Insurance:*

- (a) Unemployment insurance
- (b) Old-age and survivors insurance

#### *Public Assistance to the Needy:*

- (a) Old-age assistance
- (b) Aid to the needy blind
- (c) Aid to the permanently and totally disabled
- (d) Aid to dependent children

*Children's Services:*

- (a) Maternal and child-health services
- (b) Services for crippled children
- (c) Child-welfare services

The primary objectives of these programs are "to keep families and individuals from destitution, to keep families together, and to give children the opportunity to grow up in health and security."<sup>1</sup>

The Social Security Act is a federal law, but the federal government operates only one of the programs—old-age and survivors insurance. The other eight programs are operated by the states, with the federal government cooperating and contributing to the cost.

Three federal agencies participate in the program. The Social Security Administration of the U.S. Department of Health, Education, and Welfare administers, with the United States Treasury, the old-age and survivors insurance program. The Social Security Administration participates also in public assistance and cooperates with the states in three child-health and welfare programs. It is the Administration's duty under the law to examine state programs and, if they conform to the Act, to certify to the Treasury the payment of federal grants to the states.

Similarly, the Bureau of Employment Security in the United States Department of Labor participates in the state-operated program of unemployment insurance and state employment services. In all these programs, the United States Treasury handles the federal money concerned.

### UNEMPLOYMENT INSURANCE

Under the Social Security Act the administration of unemployment insurance is a joint concern of the states and the federal government. Each state has, however, considerable freedom of action with the result that we have 50 odd systems varying in detail but alike in essentials. There is space here for an account of only the salient features of the programs.

**The locus of control.** The decision to place the main responsibility for the administration of unemployment compensation at the state level was the outcome of technical, political, and, above all, constitutional considerations. The recent outlawing of the NRA (National Industrial Recovery Act) made it doubtful whether the Supreme Court would uphold the constitutionality of a federal un-

<sup>1</sup> U.S. Department of Health, Education, and Welfare, *Social Security: A Brief Explanation of the Social Security Act*, U.S. Government Printing Office, April, 1953. The list of programs, the statement of objectives quoted in the text and the following summary of the Act as a whole are taken verbatim from this bulletin.

employment compensation law. The same results, however, could be accomplished through the federal power to tax and to spend. Accordingly the federal law uses the tax-offset device described below to induce all of the states to pass unemployment compensation laws conforming to minimum federal standards. The penalty was so severe that every state promptly complied.

**Coverage.** To be entitled to unemployment compensation a worker must have worked for a taxed employer (or employers) for a minimum period of time and have earned a stipulated minimum in wages immediately before his loss of employment. The federal Act originally exempted seven types of employment of which the most important were (and still are): self-employment, employment in agriculture and domestic service, work performed for public agencies and nonprofit organizations, and, finally, those working for firms employing less than eight persons. The states may, however, require broader coverage. In general, the tendency has been to include smaller firms. At the present time approximately 60 percent of our civilian workers are potential beneficiaries of unemployment compensation.

**Level and duration of benefit.** Each state is free to set up its own benefit standards subject to the proviso that 90 percent of the tax shall be devoted to the payment of unemployment compensation to covered workers who are *able* and *seeking* work, and to the building up of reserves against periods of unusually heavy unemployment.

All the states relate basic benefits to past earnings; all impose *waiting periods* to penalize frivolous "quits" and to simplify administration, and *termination dates* to protect their reserves from claims arising from structural unemployment. In general the state laws aim at providing *eligible* workers with about one-half their average weekly wages. A very few of the states take into account workers' dependents in figuring benefits. Within an over-all maximum period the duration of benefits tends to depend upon the previous earnings of the unemployed. Most states originally had a maximum of 16 weeks; 20 to 26 weeks is much more common today. States wishing to provide compensation for unemployment due to sickness are now authorized to do so, provided they impose an additional tax on the employees.

**Sanctions.** Unemployment insurance is intended to provide compensation for unemployed persons who are able and willing to work and are seeking work. The federal law requires that the states set up employment offices, that all eligible unemployed workers register with these offices, collect their weekly benefit checks at these offices.

and demonstrate the genuineness of their desire to work by trying to get such jobs as the offices are able to draw to their attention. This requires that the offices maintain lists of available job openings and that they withhold certification for benefits to workers who refuse to accept reasonable offers. Just what constitutes a reasonable offer or a "suitable job" is, of course, very difficult to determine and still more difficult is the task of finding out whether an unemployed worker really tried to get any of the jobs open to him.

Within limits each state sets up its own definitions and works out its own methods of control. The federal law, however, specifies that the state employment offices may not deny compensation to workers who refuse to take jobs that are vacant because of a strike or because the rate of pay or other conditions of work are "substandard." Private employers are required to report discharges to their local employment offices and are urged to keep these offices informed of vacancies and to use the offices as much as possible when hiring workers. The extent to which employers make use of the employment offices varies from state to state. In general it is not very high.

**Financing.** The program in each state is financed by a state "excise" tax levied on the first \$3000 of all wages and salaries in covered firms. The federal government also levies a 3 percent tax on the same base, but remits all but one-tenth of its tax if the state unemployment compensation law meets federal standards. Thus, in effect, the states levy the lion's share of a 3 percent payroll tax and the federal government levies the remainder, with the state government acting as the agent for the federal government. The proceeds of the two levies are deposited in the Treasury of the United States and become part of the general revenues of the government. Funds equivalent to 0.3 percent of the payroll tax are available to cover the administration of the state programs and the federal supervision. An Unemployment Trust Fund is credited with the balance of the proceeds. Each state has a credit in the Fund equal to its own collections on which it may draw at any time to pay unemployment benefits.

**Experience rating.** Originally the federal government kept the difference between the state tax and its own 3 percent levy. The states could thus not afford to impose a levy of less than 2.7 percent on their own firms; the difference would accrue to the United States Treasury. A subsequent amendment now authorizes the states to reduce their levies below the 2.7 percent in the case of firms with steady employment records, without losing their full credit on the federal levy. This arrangement is known as "experience rating."

There is considerable division of opinion regarding the desirability of the practice.

Opponents of experience rating argue that the ability to offer stable employment is primarily due to the nature of the businesses in which firms are engaged. If consumer demand for a product is stable over time, the cyclical fluctuations in employment will be small, whereas the converse will be true if consumer demand is sensitive to cyclical forces. Since managements are not primarily responsible for their high or low turn-over rates, they should be neither rewarded nor punished by differences in their tax rates. Moreover the 3 percent rate was fixed to provide the funds needed to cover total unemployment claims. Reducing the rates for some firms reduces the yield of the tax and threatens the solvency of the states' unemployment compensation funds unless the rate on firms with bad employment records is increased above the 3 percent level. This increase, it is held, is undesirable because of the adverse effects which a heavier tax would have on these firms. Finally it is argued, that if firms are to be rewarded for improving their employment records, then a firm in a cyclically sensitive industry which reduces its annual turn-over from 30 to 20 percent is more entitled to a rebate than one in a cyclically stable industry which reduces its turnover from 12 to 10 percent.

Those favoring experience rating reply that it encourages firms to stabilize their production and employment programs and that this is a good thing for the economy as a whole. The firms contributing to this result are entitled to tax relief. If other firms are unable to stabilize their programs because of the inherent nature of their markets, then the consumers should pay enough more for their products to provide the added costs of protecting their workers. A higher tax on such firms will work temporary hardships while resources are being transferred to the firms with steadier employment records. Once the transfer is completed, profit margins in the stable and the unstable sectors of the economy will tend to be equal and the consumers and not the firms will be paying the additional tax in the form of the higher prices they have to pay for the products of the firms whose production and employment programs are inherently unstable. This argument, it will be noted, is consistent with what we have elsewhere called the principle of responsibility.

Regardless of the merits of the controversy, experience rating is now universal, with the result that the typical rates in 1951 were between one and 1½ percent, instead of the 3 percent originally contemplated. These low rates have been sufficient to build up fairly

large reserves because of the high employment of the last decade. What would happen should the country experience a serious depression remains to be seen.

### OLD-AGE AND SURVIVORS INSURANCE

This program is the exclusive concern of the federal government. Its purpose is to provide monthly annuities to workers and their families when the wage earner is 65 years of age or older and retires or to eligible survivors when he dies at any age. In general, retirement from "covered employment" is a condition of eligibility for benefits for persons under the age of 75. Between the ages of 65 and 74 earnings of up to \$75 a month in covered employment are disregarded. Beyond that age there is no limit on what a covered worker may earn.

The program is financed by a flat tax on "covered" firms, levied with respect to wage and salary payments below a certain level. Originally this level was set at \$3,000; it is now \$3,600. Employers are required to recover one-half of the tax from their employees by payroll deductions. Covered workers receive social security numbers which they keep throughout the rest of their lives, and all payments by their present and subsequent employers (insofar as they are liable to the tax) are posted to their accounts, which bear their identification numbers. The rate started at 2 percent and was to rise by 1 percent every two years until it reached a maximum of 6 percent.

The purpose of the tax is to finance the program, not to determine the exact amount an individual will receive on retiring. The method of calculating the basic annuity is too complicated to describe here. In general it is based on the annuitant's "average monthly wage" while in "covered employment" or in certain types of self-employment. The ceiling on taxable wages sets a ceiling on the annuity. No provision was made in the 1935 Act for dependents during the lifetime of an annuitant or after his death. Benefits were not to start until 1942. Both of these provisions have since been changed.

Because of the doubtful constitutionality of linking the tax explicitly to annuity benefits, the Act provided that the revenues would accrue to the Treasury and be merged with its general funds and that the Congress would appropriate annually to an Old-Age Retirement Fund an amount "determined on a reserve basis in accordance with accepted actuarial principles" sufficient to cover present and future accrued liabilities. In practice the appropriations have always approximated tax collections less administrative

costs. The declaration indicates, however, that the Congress accepted the thesis that a compulsory insurance system should be based on the reserve accumulation principle which private insurance companies necessarily follow. According to estimates made at the time the program was started, the reserve was expected to rise gradually until it reached a figure in the neighborhood of \$65 billion, after which payroll receipts plus interest on the securities in the Reserve Fund would cover benefits and administrative costs. Since the reserve funds can be invested only in federal bonds, and since the 1935 federal debt was in the neighborhood of \$42 billion, it appeared at the time that it would only be a matter of years before the entire national debt would be held by the Fund. Thereafter, or even before, if the Fund's bids drove the interest rate on outstanding obligations below the rate guaranteed by the Act ( $2\frac{1}{2}\%$ ), the Treasury was obligated to issue special securities.

**Inadequacy of 1935 program.** This part of the over-all security program was expected, in the course of time, to carry the main burden of providing income continuity for the American people. In fact, 15 years had to pass and many changes had to be made before this could happen.

During this 15-year period the old-age insurance program contributed little to those for whom it was designed. This was due to the narrow coverage of the Act, to the gearing of individual benefits to individual earnings, and to the failure to make any provision for those dependent on the covered worker.

*Small coverage.* For political and administrative reasons more than half of all those of working age were excluded from the program. The exclusions were much the same as those for unemployment insurance, except that firms in covered industries were liable to the tax if they employed a single worker. A worker's contributions provide nothing specifically for those legally dependent upon him. All those already 65 and all workers in excluded occupations could never look forward to benefits under the plan, despite the fact that they were probably contributing to its support in the prices they were paying for the goods and services of the taxed firms.

*Low and restricted benefits.* The method of fixing benefits meant that for many years older covered workers could earn only token annuities. Furthermore there was no allowance whatever for the dependents of a covered worker. Almost a whole generation would have to pass before there could be any appreciable lightening of the pressure of the needy aged on the public assistance part of the program.

**Evolution of the program.** In 1939 annuities were increased to take care of the wives, widows, and dependent children of retired workers, and, under certain circumstances, of their dependent parents. Benefit levels were increased with older workers getting a relatively larger increase, in terms of their contributions, than unmarried workers with high earnings who could look forward to a long period of coverage. The higher tax rate was postponed, and the beginning date for benefits was advanced to January 1, 1940.

Even after this increase a man retiring after 10 years of continuous service in a covered industry at an average wage of \$200 per month was entitled to a basic annuity of over \$38 a month. The annuity fell to \$26 if he had worked half the time in an uncovered industry.

In 1943 the higher tax rate was again postponed. In 1946 the survivors of veterans of World War II who died within three years of discharge were made eligible to benefits if not entitled to benefits under veterans laws. More and more people were thus being brought within the system by virtue of their relationship to the primary beneficiaries.

None of these changes, however, had increased substantially the number of "covered" workers. Consequently the number of old people receiving assistance on the basis of proved need under the federally supported public assistance laws continued to increase faster than the number receiving old-age annuities as a matter of right. Moreover, the assistance grants, being based on need in a period of inflation, tended to exceed the annuity benefits which were still geared, although somewhat less strictly, to the annuitants' past wages, and these were largely preinflation wages. Thus in 1949 the nation-wide average assistance benefit exceeded the average primary insurance benefit by 70 percent. Retiring workers who had contributed one percent of their wages for nearly 15 years were getting substantially less through the OASI program than those who had never paid a penny in payroll taxes were getting through the state assistance programs. The whole compulsory old age insurance system was rapidly falling into disrepute.

*The 1950 amendments.* This situation led to a drastic revision of the old-age insurance program in the 1950 Act. Compulsory coverage was extended to the self-employed (with the exception of farm operators and certain professional workers, such as lawyers, doctors, and engineers), to farm wage earners and, under certain conditions, to some federal employees and to employees of state and local governments and private nonprofit organizations. These

changes added some 11 million to the rolls. The tax rate was set at 3% for the next three years and the taxable wage base was raised from \$3,000 to \$3,600. Annuities were increased by some 75 percent on the average, with the largest increases going to older workers, including those admitted at this time. Benefits of workers who had already retired were almost doubled, with the average rising from \$26 to \$46.

The 1950 amendments marked the final abandonment of the principle that each worker's old-age claim would be based on the amount of his and his employer's contribution. All that was left was the principle that, in the long run, total payroll taxes should cover total benefit plus administrative costs. Within the insured group, benefits are related to need, with the younger and the higher-paid workers paying for part of the benefits of the older and lower-paid workers, and those with numerous dependents. Current benefits come much closer to current conceptions of adequacy.

By 1955 it is estimated that about one-third of those then over 65 will be in receipt of social security protection, one-third will have adequate protection from other sources, and one-third will be on the old-age public assistance rolls.

### PUBLIC ASSISTANCE TO THE NEEDY

There are four programs falling under this heading: old-age assistance; aid to the blind; aid to the permanently and totally disabled; and aid to dependent children. These are frankly welfare programs involving transfers of income from the more to the less fortunate. The federal government supports these programs through grants-in-aid.

**Old-age assistance.** The federal-state old-age assistance program was regarded in 1935 as an interim measure to be used until such time as a virtually universal old-age insurance program could be worked out and matured to the point where contributions would finance adequate annuities for all but a small minority of casual workers. Meantime the primary responsibility for the needy aged was to be left to the states with the federal government contributing enough to make it worth while for all states to cooperate.

The 1935 Act committed the Congress to match dollar for dollar state grants to the needy aged up to a maximum of \$15 a month. The states had to bear all of the costs on grants in excess of \$30 a month. To qualify for federal aid, state governments were required to meet minimum federal standards concerning such matters as the tests to be used to determine eligibility, state responsibilities for the

administration and financing of assistance, the making of assistance available in all political subdivisions, and the provision of an opportunity for a fair hearing by persons denied assistance. This last provision elevated public assistance to the status of an enforceable right. The question of adequacy was left to each state. Setting the matchable maximum at \$15 was intended to encourage states to pay at least \$30 a month to their needy aged. It was expected that the wealthier states would pay more.

**Evolution of the program.** Between 1939 and 1952 the matchable maximum was raised by successive stages from \$30 to \$55. These increases were to encourage the states to keep benefits in line with the rising cost of living. Much more significant was the change in the matching formula introduced in 1946. The new formula required the federal government to match \$2 to \$1 on the first \$15 *average* (not individual) monthly payments, and one-half thereafter up to the maximum. Two years later the federal share was raised to three-fourths of the first \$20 average monthly payments, and one-half of the balance. In 1952 the federal share was raised to four-fifths of the first \$25 and one-half of the balance up to the new \$55 ceiling.

*Reasons for the variable matching formula.* The purpose of the change in the matching formula was to encourage the low-income states to make more generous provision for their needy aged. Political considerations were doubtless influential, but there were also some very respectable reasons for getting away from the flat 50-50 matching. The experience of the 1930s had shown that the federal aid programs were actually hurting the low-income states. This unexpected and unintentional result was due to the fact that, as the number of federally supported programs multiplied,<sup>2</sup> the governments of the poorer states found it impossible to raise enough in local taxes to take full advantage of the various offerings. Their position was like that of the dyspeptic at a 10-course banquet who is forced to leave untouched most of the tempting dishes placed before him. Mississippi, for example, paid only \$9.21 per old-age recipient

<sup>2</sup> Between 1926 and 1936, for example, federal grants and quasi-grants to the states rose from about 4 percent to almost 27 percent of total federal expenditures chargeable against ordinary receipts, and from less than 8 percent to more than 88 percent of state revenue. Their relative importance has declined since but is still very great. In 1952 federal grants-in-aid to the states amounted to 17.3 percent of total state general revenues, ranging from 37.7 percent in Wyoming to 10.6 percent in Maryland. These grants according to a Task Force Report of the First Hoover Commission permit the federal government to influence and "to some extent control 75 percent of the total activities of state governments." *Washington News Letter of the Chamber of Commerce of the United States*, August 7, 1953.

in 1942, whereas Connecticut paid \$29.16. This meant that Connecticut received more than three times as much per case from the federal government than did Mississippi. Connecticut residents also contributed more in federal taxes, but from the point of view of the burden on Mississippi taxpayers and the benefits to Mississippi's needy aged, the situation appeared to be out of line with the generous impulses behind the old-age assistance program.

The new formula has corrected this situation only to create a new one of more serious import.

*The consequences of the variable formula.* The variable formula constitutes a wide-open invitation to the states to put as many old people on the rolls as possible and to reduce the size of the average grant.

The inflationary effects upon the rolls is illustrated by the contrasting policies of New Jersey and Louisiana. In 1949 both made average assistance payments of about \$47.50. New Jersey, however, granted aid to only 65 in every 1,000 of its residents over 65 years of age, while Louisiana put upon its rolls 670 per 1,000. One would expect the proportion in need to be higher in Louisiana than in New Jersey, but not that much higher. This feat of getting two out of three on the assistance rolls was largely accomplished by a state ruling that the children of old people were not to be held responsible for the care of their parents. As a result Louisiana received \$37,099,000 from the Federal Treasury, while New Jersey drew only \$7,095,000, or less than one-fifth as much. How long can New Jersey be expected to maintain its standards in the face of this competition?

The temptation to increase the drain on the federal Treasury can be illustrated as follows: Let us assume that there are 100,000 persons, age 65 or over, in a state that is paying out \$50 a month on the average to 20,000 of these old people. Since the federal government pays four-fifths of the first \$25 and one-half of the balance, the federal share of each old age grant is \$32.50 and the state's share is \$17.50. It follows that the average grant *per aged inhabitant* is one-fifth of \$50, or \$10, and of this the state pays \$3.50. If the state should now decide to pay out one-half as much to twice as many of its old people—to 40,000 instead of to 20,000—the average grant per aged inhabitant would still be \$10, but the state's share would be cut almost in half—from \$3.50 to \$2.00. This change in policy would cost the state only \$10,000, but it would bring an additional \$190,000 of federal funds into the state.<sup>3</sup>

**Public assistance to dependents and handicapped.** The Federal-state Public Assistance program originally (1935) provided aid for

only the blind and dependent children. Then in 1950 the totally disabled and adults taking care of dependent children were made eligible.

The matching provisions for the blind were the same as for the needy aged and have always remained the same. Originally the federal share of grants to dependent children was one-third instead of one-half. This led many states to deal more generously with their aged and blind than with their dependent children. In 1939 the equal matching formula was applied here, and the age of dependency was raised from 16 to 18 years. In 1946 the variable formula was introduced into all these programs, and, as in the case of the old-age assistance, the amounts which the federal government would match were raised to keep pace with the rise in the cost of living.

**The residual program.** The insurance and assistance programs make no provision for the needs of those over 18 and under 65 who, for one reason or another, are out of jobs and are not covered by unemployment compensation or not protected by their relationship to a protected worker. They have to rely on the types of local relief that were traditional in the 19th century. The federal government is not involved. Each state is completely free to do what local public opinion deems most appropriate.

### CHILDREN'S SERVICES

Under the Social Security Act the Federal Government participates in the three maternal and child welfare programs mentioned at the outset of this chapter: maternal and child health services; services for crippled children; and child welfare services. Here the objective is service rather than the maintenance of some level of income continuity.

The primary responsibility for these services rests with the states. State agencies draw up the plans and submit them for approval to the Children's Bureau—one of the operating divisions of the Federal Social Security Administration. If approved, federal funds are made available on a matching basis. During the fiscal year 1951, the states received approximately \$30 million from the federal government toward the support of these services.

We are not concerned here with the details of these programs. One point does interest us, however. The complicated matching formulas for all of these programs are deliberately designed to channel federal funds primarily into the rural areas of the several states and to provide relatively more to the low-income states than to the

wealthy states. Thus the Federal Public Assistance program and the Federal Children's Services program now bring about a substantial regional redistribution of income in favor of the more agrarian states, with the old South as the principal beneficiary. It is very doubtful, however, whether all of these programs shift as much purchasing power from the wealthier to the poorer parts of the country as the people in these parts of the country could earn if other federal measures were repealed which discourage rather than promote interstate trade.

*Questions:*

1. Identify the types of need covered by the original social security Act of 1935. What types of need have since been added? What situations are still left exclusively to voluntary or public local action?
2. Discuss the American unemployment compensation programs under the following headings.
  - (a) the considerations that led to assigning the major administrative responsibility to the states;
  - (b) the method of financing the program;
  - (c) the means at the disposal of the federal government for inducing the states to pass unemployment compensation laws and to accept certain minimum standards;
  - (d) experience rating and its consistency with the insurance principle;
  - (e) the impact, if any, of unemployment compensation on employment and on wages;
  - (f) the possibility of using unemployment compensation to reduce popular resistance to tariff reductions.
3.
  - (a) Explain the basis for the statement in the text that developments between 1935 and 1950 were such as to discredit the OASI program.
  - (b) What changes have since been made in the program to correct the situation?
4. Explain the reasons for the shift from the flat 50-50 matching formula in the federal-state assistance programs and discuss the effects on
  - (a) the federal budget,
  - (b) the level of assistance,
  - (c) inter-regional capital movements,
  - and (d) the vitality of federalism.
5. Argue for or against the thesis that the state governments would not continue adequate general assistance programs in the absence of federal aid, even if the federal government assumed the entire burden of the present OASI program.



PART NINE

*American Foreign  
Economic Relations*



## *The Historical Background*

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THE 75 years from roughly 1840 to World War I were the golden age of liberalism in the original meaning of that term. Unlike the preceding age of mercantilism, men placed their primary reliance on free prices and market competition, and not upon detailed government edicts for the solution of most of their economic problems. Narrow nationalism appeared to be giving way to a broad and generous cosmopolitanism. Economists of liberal persuasion the world over proclaimed that the freedom of consumers to buy in the cheapest markets and the freedom of producers to sell in the dearest markets would contribute to the wealth of nations and the peace of the world. International trade was not completely free, but tariffs were, on the whole, moderate and frequently "bound" by treaties for considerable periods of time.<sup>1</sup> Increasingly, the foreign and domestic economic policies of the leading countries were geared to the requirements of the market.

Today we are far closer to 18th century mercantilism than to 19th century liberalism. National state planning is again in vogue. Production and trade are highly regulated. Commodity prices, interest rates, rents, and profits are completely controlled in many countries and to some extent in all countries. It is true that the advantages of international trade based on comparative advantage are officially recognized, but national economic policies are, in fact, dominated by the same balance-of-payments preoccupations that inspired so much of the planning of the age of mercantilism. Gone is the faith that market forces will automatically correct the disequilibria which arise when a people buy abroad more than they can pay for.

<sup>1</sup> The United States never entered into such treaty arrangements, but, by present standards, our tariff revisions were relatively infrequent.

The liberal theory of international trade was described in Chapter 25. Here we propose to trace the development of American foreign economic policy, assay our responsibility for the world-wide return to neomercantilism, describe and evaluate post-war efforts to restore international trade by purposive state action, and suggest a foreign economic policy that would be consistent with the kind of economic system we seek to foster domestically.

### AMERICAN FOREIGN ECONOMIC POLICY: PRIOR TO 1920

Up to about 1920 our foreign economic policy was reasonably consistent with our domestic economic system.

**International labor and capital movements encouraged.** With the exception of exclusions directed against the Chinese and the Japanese, on the ground that their eventual biological assimilation was impossible (or undesirable), immigration was encouraged, and residents of the United States were free to settle in almost any part of the world, if they so desired. Similarly our laws were designed to make the United States attractive to foreign capital; it enjoyed the same legal protection accorded domestic capital. Principal and earnings could be withdrawn at will. The international gold standard reduced the risks inherent in international investment. Nor were there any legal barriers placed on the export of American capital. In brief, there was very considerable international mobility of labor and capital during this period. Two of the prerequisites of economic liberalism were thus satisfied.

**Imports discouraged.** With respect to commodity movements, however, our policy was illiberal. From the very beginning of our history as an independent nation, we insisted upon protecting the home market. We can only guess at what would have happened had we used our tariffs for revenue purposes only.<sup>2</sup> Doubtless our industrial development would have been slower, but the industries which did develop would have rested on the firm basis of absolute or comparative advantage, and our farmers and raw material producers would have gained because of the greater foreign demand for their products and the lower prices they would have paid for manufactured products.

*Early effects not serious.* Nonetheless the effects of our protectionist policy were not serious as long as we were a borrowing country in the early stages of industrial development. The foreign capital

<sup>2</sup> A country's tariffs are said to be for revenue only if they are levied only on goods not capable of being produced domestically, or if internal taxes are placed on domestically produced goods equivalent in weight to those placed on imported goods.

invested within this country enabled us to buy abroad the rails, the engines, the machinery and equipment needed for our developing industries and our rapidly expanding labor force. Tariff duties were nondiscriminatory as between countries, were changed at rather infrequent intervals, and, while high, were, for the most part, not absolutely prohibitive. Hence the pressure of international competition tended to direct our internal development into the lines which conformed reasonably well with the principle of comparative advantage. The economic integration of the great trading nations went forward. Up until the very eve of World War I it seemed possible to look forward to the emergence of an interdependent world in which peace would rest upon the foundation of mutual self-interest, and not upon the capacity of national governments to create a super-government with the power to outlaw economic nationalism.

Tariffs do not strike at the roots of the private enterprise system. They slow down but they do not prevent the price mechanism from integrating a borrowing country in the *infant-industry stage* of its development into a larger international economy. But a country which borrows from abroad and invests wisely does not remain indefinitely either in the infant-industry stage or in the debtor stage.

As such a country approaches industrial maturity, domestic investment opportunities multiply, and some industries must be sacrificed if others are to grow. There is not enough man power, capital, and know-how available to push forward on all fronts. The continued protection of perennial infant industries hurts a country's efficient industries by increasing the prices they must pay for resources and by decreasing the foreign demand for their products.

Nor does such a country remain indefinitely in the *early debtor stage* during which foreign loans enable it to buy from abroad more than it can pay for by current exports. In time, interest and dividend payments due foreigners on old investments exceed in value new borrowings. When this stage is reached, a country either defaults on old obligations and thereby destroys its capacity to attract foreign capital, or it develops an excess of exports over imports on current account. The "balance of trade" shifts from unfavorable to favorable. This shift in our international position came in the 1870s. Thereafter we had a favorable balance on current account which was large enough to permit us to service old obligations, pay off some of them as they matured, and finally to begin making investments in other countries. As we approached the end of this period the United States was slowly but surely working itself out of its debtor position. We were coming of age industrially. It was only

a matter of time before we would join the ranks of the *mature creditor countries*, which must necessarily have unfavorable balances on current account.

Had World War I not occurred, the transition from debtor to creditor position would have extended over many years. This would have given us time to adjust our internal economy, our thinking, and our policies to our new responsibilities. In 1913 we did make substantial reductions in our tariffs. But then came the first of the great modern world wars, and when it was over, the United States stood supreme, the world's mightiest industrial country and the greatest of the creditor countries. We attained this position because we were able to expand simultaneously our agricultural and industrial capacity and we were willing to hold down our own consumption and release much of our increased output to our associates in the war, taking in return claims against them, collectible at some future time. These claims were created by our exports; they could be collected only by our imports. Their economic validity thus depended, to a considerable extent, upon our future foreign economic policies.

#### AMERICAN FOREIGN ECONOMIC POLICY: 1920-1932

At the war's end the greatest single contribution we could have made to a sound world recovery would have been to lower further our protective tariffs, and to have given assurances that duties would not be raised as industries in the borrowing countries returned to peacetime production and succeeded in penetrating the American market. This was a hard decision to make because, during the war, enterprises had developed which could not stand the test of international competition. Their losses would have been heavy, and there would have been considerable unemployment before the workers of these industries found new jobs.

**We raise tariffs.** In the decade following the war we raised our tariffs twice. The Fordney-McCumber Act of 1922 undid the tariff reductions of Woodrow Wilson's first Administration. The Hawley-Smoot tariff of 1930 carried protectionism to the highest level in our history. We thus made it economically difficult and politically almost impossible for our debtors to honor the close to \$10 billion which our government had lent them in the common struggle against Imperial Germany. Our private foreign investments were also jeopardized. To get over our high tariff walls foreign firms had to offer their products at lower prices than would otherwise have been necessary. This had an adverse effect on real wages abroad.

Furthermore, the protectionist temper of the American people, and the known willingness of the Congress to provide additional protection to any industry which claimed to be seriously hurt by foreign competition made foreign businessmen doubt the wisdom of spending money on the advertising and developmental programs which are always involved in the opening up of new markets. It is not surprising, therefore, that public opinion in the debtor countries came to regard as unreasonable our insistence upon the repayment of war debts incurred in the common cause.

**We restrict immigration.** Throughout most of our history immigration was actively encouraged. Some 33 million persons, mostly from northern and western Europe, entered this country in the 100-year period, 1820-1919. It was not until the closing decades of the 19th century that restrictions were placed upon the entry of the Chinese and the Japanese. These restrictions were motivated in part by protectionism—the unwillingness of American workers to accept the terms on which Chinese and Japanese immigrants were willing to work—and in part by the conviction that their biological assimilation was impossible or undesirable. Here matters stood until the close of World War I. Then, and over the veto of President Wilson, quota restrictions were applied to immigrants from almost all countries. The quotas cut down sharply the number who might enter from countries that had supplied few immigrants prior to 1890 and had little effect upon the others.

There are sound sociological and political reasons why our wide-open door policy could not be continued indefinitely. Nonetheless the sudden and drastic reversal of our historic policy had far-reaching internal and international effects. The repercussions in Europe were particularly severe.

The whole of the European economy was, at the time, dependent upon its ability to ship part of its net population increase abroad, much as the Southeast today depends on migration to help solve its problem. From the 1890s on, this emigration had been predominantly from the overcrowded farms of southern and eastern Europe—agrarian Europe. When we suddenly closed our doors to immigration, the agrarian countries promptly erected exorbitant tariffs on manufactured goods in an endeavor to develop substitute jobs at home. This action destroyed the export markets on which the industrial countries of northern and western Europe—industrial Europe—had come to depend. Earning less of the moneys of agrarian Europe, industrial Europe had less to spend for the agricultural products of agrarian Europe. Consequently farm prices in the agrar-

ian countries fell to very low levels. The solvency of the agrarian groups in industrial Europe was now threatened. They demanded and secured prohibitive agricultural tariffs. The final outcome was the disintegration of the European economy and the impoverishment of the European peoples. Had we opened our domestic market to the products of Europe as we closed the door to her people, the effects would not have been as disastrous. But we did not do this. Instead, as already noted, we raised our tariffs on competitive products to prohibitive levels.

**We promote self-determination.** Our encouragement of territorial settlements based on the principle of self-determination proved unfortunate from a purely economic point of view. It led to the creation of a large number of small and highly nationalistic states whose domestic markets were too small to permit the use of the mass production techniques upon which high productivity and high living standards depend. If we had opened our own internal market, and if these new states had refrained from erecting tariff barricades around theirs, this political *balkanization* would have had no adverse economic consequences. But neither of these things happened. We closed our market to their goods and their peoples, and they closed theirs; further they used their reparation claims and foreign loans to provide themselves with the plant and equipment needed to make themselves independent of their old sources of supply. A world-wide but unsound prosperity prevailed during this building-up period, but, since these new national economies did not mesh together, a collapse was bound to ensue the moment the lending ceased. When it came, the resulting disillusionment and distress led to the return to authoritarian government in many parts of the world and to divisive national planning everywhere. Our tariff and immigration policies during this period undoubtedly contributed to these unfortunate developments.

**Reparations and inter-allied debts.** German reparations also contributed to the world-wide return to protectionism. To pay them, Germany had to develop a large favorable balance of trade, and the countries receiving reparations had to be willing to accept large quantities of goods "made in Germany." Some domestic firms were bound to get hurt. They demanded protection. It was difficult for their governments to resist these demands in view of the widespread fear and distrust of Germany. Tariffs were raised with the result that public opinion in Germany came to believe that the victors were not interested in the restoration of the damages wrought by German armies, but rather in keeping the reparation claims intact

because many of the restrictions on German sovereignty were to be continued until the reparation claims had been paid.

While we exacted no reparations from Germany, our insistence upon the repayment of the war debts prevented an early solution of the reparations impasse. It was politically impossible for the governments in power in countries with claims against Germany to make any large concessions unless they could tell their people that their late ally had made equivalent concessions to them. Thus reparations and American debt claims remained on the books throughout the 1920s and contributed to the exaggerated protectionism which developed during that fateful decade.

**We buy off depression.** Our decision to raise tariffs and restrict immigration was due in considerable part to fear of large-scale unemployment after the war. These measures could not, of course, prevent unemployment; they could only change its incidence. Their first effect was to cut down our imports. The cut in imports reduced foreign dollar earnings and hence the foreign demand for the products of our efficient industries. It thus tended to create unemployment in these industries and forced us to look to our less efficient ones to absorb the displaced workers. Thus our fears led us to adopt a policy which was calculated to increase the volume and the duration of unemployment, reduce the productivity of our economy, needlessly lower living standards, and retard world recovery.

The developments of the 1920s do not invalidate this conclusion.

The war years had been a period of high economic activity. The peak or upper turning point was reached in the late summer of 1918, followed by a mild recession which reached its low point in the spring of 1919 (April), with the armistice at about the midpoint. The first postwar business cycle, April 1919 to July 1921, was the briefest and most violent in our experience up to that time. The expansion phase lasted only 9 months with its upper turning point falling in January, 1920. The ensuing contraction, which lasted just twice as long, gave a complete cycle of only 27 months, as compared with the average of 48 months for the preceding 16 cycles.

These developments showed that tariffs and immigration restrictions could not ward off unemployment; that the country might have to go through a long and serious depression before the expansion of our less efficient industries could take up the employment slack.

Yet, in fact, the recovery started long before the readjustment had been accomplished. Taken as a whole, the 8 years, 1922-29

inclusive, were prosperous in this country<sup>3</sup> and in most foreign countries.

This prosperity was not the result of any "effective demand" created by federal deficits. On the contrary, federal expenditures and federal taxes were both cut drastically, and the national debt was reduced by about one-third. It is obvious, therefore, that the activity of the 1920s was sustained entirely by private investment, and investment by state and local governments.

There was, in fact, an enormous investment boom in the United States. But, in our judgment, it was the foreign orders financed by our large private foreign investments that maintained employment in our efficient export industries and prevented them from dragging the national economy as a whole into a depression. Private foreign lending during the 1920s played the role that federal deficits were destined to play in the next decade. In the eight years, 1922 through 1929, Americans invested abroad close to \$10 billion. These funds also sustained activity abroad, but involved American investors in heavy losses when the flow fell below the amounts required to service the earlier investments. The only thing which could have prevented widespread defaults was a great increase in imports relative to exports, and this our tariff increases of the 1920s made impossible.

The Great Depression started in the fall of 1929 in this country, and by 1931 it had swept through the entire world. The dollar value of international trade fell by 75 percent, and, according to a League of Nation's estimate, some 31 million nonfarm workers were unemployed. In the United States alone there were more than 8 million unemployed. Two years later this figure had swelled to almost 13 millions. We had bought eight years of artificial prosperity at the price of a world-wide collapse so severe as seriously to weaken public confidence in the workability of private capitalism.

### AMERICAN FOREIGN ECONOMIC POLICY: 1932 TO WORLD WAR II

In preceding chapters we discussed the New Deal program for domestic recovery. We noted the restrictionist and protectionist character of many of the measures. Labor and management in the older industrial regions sought and secured protection from the competition coming from the industrially underdeveloped South. Paradoxically this same New Deal reversed the restrictionist and protectionist tariff policy of the Republican Party, and attempted to

<sup>3</sup> Great Britain alone failed to share in this worldwide prosperity and for reasons that will become clear as we proceed.

restore international competition through tariff reductions. This inconsistency was self-defeating. We achieved neither our domestic objective of full employment nor our foreign relations objective of restoring international trade.

**The Reciprocal Trade Agreement Program.** Reducing tariffs is very difficult in a democracy, even though a substantial majority favor tariff reductions *in principle*. Congressmen take it for granted that they will lose the votes of those who might get hurt, and they cannot be sure that they will win the votes of those who will be benefited. This is due to the fact that the damages are direct, immediate, and obvious, whereas the benefits are indirect, delayed, and diffused. It requires great political courage for a Congressman to vote to reduce the rates on products directly affecting his constituents. Hence he bargains with his fellow Congressmen, agreeing to vote tariff protection for the products in which they are interested in return for similar favors when the products in which he is interested come up for consideration. In the absence of a rigid party discipline, an Administration pledged to reduce the tariff simply cannot carry out its promise. It is as difficult for a democratically elected body to fix individual tariff rates in the national interest as it is to fix individual freight rates.<sup>4</sup> The national interest is bound to be sacrificed to special sectional interests.

*The Reciprocal Trade Agreement Act* of 1934 got around this practical political difficulty by delegating to the President power to fix individual tariff rates. The delegation ran for three years, reductions were not to exceed 50 percent of those set forth in the 1930 Hawley-Smoot Act and they were to be granted only in return for equivalent tariff reductions by other countries. These reductions were to be negotiated by the Department of State and were to be embodied in trade treaties which were to go into effect without further Congressional approval. The procedure necessarily involved a series of bilateral bargains. In order that these bargains should not bring about any departure from our traditional policy of according equal treatment to products entering our markets, regardless of their points of origin, and of demanding equal treatment of our products in foreign markets (i.e., "most-favored-nation" treatment), the Act required that the contracting parties accord the duty reductions to all other countries which did not discriminate against their own nationals. In this fashion it was hoped that piecemeal tariff

<sup>4</sup> In 1887 the United States Congress delegated its power to fix individual freight rates to the Interstate Commerce Commission in accordance with broad general directives.

reductions would result in a world-wide reduction of tariff barriers.

This was a notable shift in policy. Unfortunately it came too late to reverse the general trend to protectionism. Tariff reductions have little effect once countries start using the more drastic restrictionist techniques of import quotas, exchange rationing, bulk buying on government account, and currency depreciation. And this is precisely what most countries did during the 1930s. The result was that the national recoveries of that period were, in general, incomplete and turned inward toward national self-sufficiency. A large part of the gains of territorial specialization made during the 19th century and subsequently lost were not recovered.

Moreover our reversal of policy was never complete enough to inspire great confidence abroad. The Congressional delegation of power, although repeatedly renewed, was always for brief periods. This meant that concessions could always be terminated if any important domestic interest was seriously hurt. The maintenance of the "Buy American" Act of 1933 provided further evidence of the lukewarm desire of the Congress to expand international trade through the opening up of the American market.

Thus, despite a reduction of almost one-third in the average burden imposed on all dutiable imports, our effort to restore world trade failed. More and more, national planning became the order of the day, and it became increasingly apparent that governments, acting singly, could neither reconstruct the old pattern of territorial specialization nor work out a new one. The high hopes engendered by the war which was to "end war" and make the world "safe for democracy," and nurtured by the artificial prosperity of the 1920s, gave way to disillusionment, despair, and distrust of democracy and of private enterprise. Increasingly peoples surrendered their destinies to governments in exchange for promises of a security which these governments were powerless to fulfill.

## THE HERITAGE OF WORLD WAR II

World War II lasted longer than World War I, and the material destruction was much greater and more diffused. Nonetheless there were good reasons for hoping for an early recovery, and for a resumption of the steady material recovery which had been taken for granted in the age of economic liberalism.

**Grounds for optimism.** *Technological progress.* The first reason for optimism was the technological progress fostered by the war itself. As early as 1942, Dr. Charles M. A. Stine of the vast Du Pont organization, had pointed out in an address that "the pressures of

this war are compressing into the space of months developments that might have taken a half-century to realize, if necessity had not forced the pace . . . Already . . . our world of 1940 . . . is so distant in the past that it has become an antiquity, as seen through scientific eyes.”<sup>5</sup> And this was before science had discovered how to release the enormous energies locked within the atom. Thus at war’s end man was at the threshold of an almost unlimited source of power. Properly managed it could very literally abolish poverty wherever people were capable of handling modern equipment and modern organizational problems, provided they were prepared to merge narrow national markets into large international markets, and to curb their birth rates.

*The promise of American leadership.* Equally encouraging was the apparent evidence that the American people were prepared to encourage international trade and to assist people everywhere to develop their resources.

Our conduct during the war appeared to confirm the reality of *our conversion to internationalism*. As in the previous war it was the supplies flowing from our factories, our mines, and our farms that made the final victory certain. But this time our help was given in such fashion as to leave in its wake no burdensome debt heritage. Altogether we contributed approximately \$40 billions under *lend-lease* to the common cause. In return, all that we required of the governments receiving this assistance was that they should agree in advance to eliminate after the war “all forms of discriminatory treatment in international commerce” and to “reduce tariffs and other trade barriers.”

The successful establishment of a new world organization, the United Nations, our entry into it with overwhelming Congressional majorities (in contrast to our refusal to join the old League of Nations), and our willingness to channel over \$3 billion of relief through an agency of the United Nations—the United Nations Relief and Rehabilitation Administration (UNRRA)—all these developments provided a further earnest of the genuineness of our desire to build an international authority capable of capturing the imagination and the loyalty of men everywhere, and thus of providing the political and psychological bases for a lasting peace.

*Our debtor position.* Even before our entry into the war, we had renounced in effect our World War I debt claims; and a large part of our claims arising from the private investments of the 1920s had

<sup>5</sup> “Molders of a Better Destiny,” *Chemical and Engineering News*. The address was widely distributed without a dateline. It was given in September, 1942.

been cancelled by bankruptcies or reduced by voluntary settlements. Thus at the end of the war, and despite our large favorable balance of trade on current account, *we emerged as a debtor country*. Neutrals, in particular, held large dollar balances, resulting from their sales to belligerents and to us and their inability to get anything from us in exchange that did not contribute to the successful conduct of the war. These large demand liabilities exceeded our long-term investments abroad.

At war's end an exhausted world stood in great need of American assistance. It was desirable that we should continue for a limited period to export much more than we imported. Had the outside world been heavily in our debt we could not have done this unless we were prepared to invest abroad immediately and heavily or continue with our international grants-in-aid. The current claims against us provided a valuable breathing space during which plans could be laid for restoring the normal flow of commerce and for establishing the political and economic bases for normal international lending.

**Grounds for skepticism.** Despite these solid grounds for optimism—the technological developments fostered by the war, our apparent conversion to internationalism, and our technical position as the world's debtor—there were formidable obstacles standing in the way of an early recovery.

*Faith in national planning.* In the first place the temper of the people everywhere showed that they were not willing to let competitive market forces direct their resources in accordance with the principle of comparative advantage. There was a tendency everywhere to look to governments to work out the task of international integration through political negotiations. Could national plans be reconciled in this fashion? How were the planners of a country to know whether the world's interests would best be served by abandoning industries A, B, and C and concentrating on industries D, E, and F, in the absence of convertible currencies, price comparisons, and international competition? And if they knew, could they implement their knowledge?

On this fundamental issue there was no international meeting of minds. The official American position was in favor of a return to a free market economy, with international trade conducted on the basis of stable and freely convertible currencies and moderate and nondiscriminatory tariffs. We declared our opposition to the use of quotas, import and export licensing systems, foreign exchange rationing, exchange depreciation for protectionist purposes, bulk

buying on government account, and similar devices, on the ground that they were inconsistent with the requirements of an international market economy.

Yet Great Britain after the war, and, only to a lesser extent, Holland and the Scandinavian countries, had embraced a form of democratic socialism which involved over-all national economic planning and the use of these very devices for the execution of their plans. Would not these differences in approach provoke conflict instead of cooperation?

*The fetish of full employment.* Another obstacle to world integration was the grip which the doctrine of full employment had upon the public in all countries. International trade, when not interfered with, imposes constant changes upon national economies, and change always involves some unemployment. Invention and innovation proceed at an uneven pace and expose laggard firms to sudden and unwelcome competition. The broader the trading area, the more frequent will be the disturbances arising from dynamic forces. A government committed to maintaining full employment at any cost will find it difficult to resist the demand for protection from the managements and the workers in industries which are forced to contract because foreign competitors have discovered new and better ways of production.

The French Constitution adopted after World War II imposed upon the French government the responsibility for maintaining full employment. The coalition wartime government of Winston Churchill solemnly declared that it would assume responsibility for full employment after the war and the avowedly socialist Labor Party which held office from 1945 to the end of the decade regarded the maintenance of full employment as more important than the socialization of the instruments of production. Article 22 of the Israeli Constitution guarantees the right to work. While our own Employment Act of 1946 did not go so far as to guarantee employment it did strengthen the popular expectation that the administration in power could and should maintain employment at a high level. The United Nations Charter makes membership in that organization conditional, nominally at least, on acceptance of government responsibility for domestic full employment.

It may be argued that general acceptance of this responsibility provided encouraging evidence of the existence of an international consensus. At war's end this was the popular view. The experiences of the next few years, however, were to demonstrate the difficulty of reconciling government-contrived full employment with the restoration of international trade.

*The gospel of equality.* Another obstacle grew out of the excessive expectations aroused by the popularizations of the doctrine of "effective demand." Particularly significant from the international point of view were those formulations of the doctrine which stressed income inequality as an important cause of chronic unemployment and progressive taxation as a major corrective. If taking from the rich to help the poor within a single country would make that country wealthier, without leaving the rich any worse off than they would have been had gross inequalities been tolerated, did it not follow that a transfer of wealth from rich to poor countries through political grants-in-aid would make the world wealthier, without requiring any real sacrifice of the people in the wealthy countries? This view is very widespread. It is not surprising, therefore, that the peoples and the governments in many of the industrially underdeveloped countries tended to look on "development . . . as something which is due as a right from the more advanced nations to those less well developed," rather than as something which "can only be won internally by acceptance of responsibility, hard work, and sacrifice."<sup>6</sup> As we shall see presently, this attitude has complicated postwar recovery.

*International communism.* But the chief reason for the skepticism which soon developed regarding the prospects for peace and an early recovery was due to *developments in Russia*. These developments quickly shattered the hopes of the many friends she had won for herself in the democratic West. Whether her motive was world domination, as many claimed, or simply a quest for national security, as some affirmed, Russian expansion into the power vacuum left by the sudden and complete collapse of Germany and Japan aroused intense fears regarding the solidity of the territorial states within striking distance of her vast land forces. This fear made impossible the expected relief from the burden of armament which had figured in the high expectations of an early recovery; in addition it created a formidable investment road block. Foreigners will not make costly and durable investments in areas which cannot be defended, particularly when it is known that the invaders do not respect private property rights in the areas they take over.

### SUMMARY

American foreign economic policy was reasonably consistent with the kind of market economy we were trying to preserve at home up

<sup>6</sup> This warning note was sounded by the President of the International Bank for Reconstruction and Development at the Fifth Annual Meeting of the Directors.

to the beginning of the first World War. The exaggerated tariffs of the 1920s were contrary to our national interest, inconsistent with our new creditor position, and were in part responsible for the severity and the duration of the depression which ushered in the 1930s. During that decade there developed a serious inconsistency between our internal protectionist policies and our foreign policy as embodied in the Reciprocal Trade Agreement Program. Our foreign economic policy over the next five years was animated by a determination to win a great war and to create an international agency capable of keeping the peace and promoting social and economic progress throughout the world. In the next two chapters we shall discover that the same inconsistencies which nullified our 1930 efforts to rebuild a peaceful and prosperous world have to date plagued our postwar efforts.

### *Questions:*

1. Explain how market forces, when allowed to operate freely, tend to force regions within countries, and countries themselves, to specialize and exchange goods and services on the basis of comparative advantage.
2. "High tariffs reduce international specialization and international trade more if they are imposed by a mature creditor country than by a country in the early debtor stage of its development." Explain.
3. Describe in broad outlines the world pattern of international trade as it existed prior to the first world war and explain why our trade and immigration policies were in part responsible for the inability of market forces to restore this pattern during the decade of the 1920s.
4. The period of the 1920s was one of great prosperity in the United States. Argue for or against the proposition that the tariff was responsible for this prosperity.
5. "Tariff reduction is difficult to achieve in a democracy."
  - (a) If you think this is true explain why.
  - (b) What method was adopted in the early days of the New Deal for getting around this alleged difficulty?
6. Enumerate and briefly identify (a) the reasons for believing that the damages caused by World War II would be quickly made good and (b) the reasons for skepticism.

## *Contemporary Issues*

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OUR postwar foreign economic policy has proceeded along two lines. One line has involved participation in certain international organizations, notably the United Nations; the other has been the result of exclusively American initiatives. We shall discuss first our efforts to promote our national economic interests through certain intergovernmental organizations connected with the United Nations: the International Monetary Fund, the International Bank for Reconstruction and Development, the International Labor Office, and the proposed International Trade Organization.

### THE INTERNATIONAL MONETARY FUND

During the war international trade was carried on largely on government account with little regard to price or profit considerations. At war's end varying degrees of inflation had broken down even the loose price relationships that had survived the managed currency regimes of the 1930s. No common denominator permitted international price comparisons. Until a new one could be developed, international trade had to proceed on the cumbersome and unsatisfactory basis of bilateral barter agreements.

The International Monetary Fund<sup>1</sup> is designed to provide the nations with a common international medium of exchange. It is a multigovernment financial organization with ownership vested in the member governments. National subscriptions, or quotas, and voting rights are determined roughly by the volume and value of

<sup>1</sup> The plans for the Fund were worked out during the war by monetary technicians from a number of the countries which were engaged in the struggle against Germany and Japan. It was not, however, until the Spring of 1947 that it began to operate. The seat of the Fund is in Washington.

a country's international trade. The quotas of the 49 countries which were members of the Fund on April 15, 1951, amounted to approximately \$8 billions and ranged in size from our \$2,750,000,000 to Liberia's and Panama's \$500,000.

**The assets of the Fund.** The assets of the Fund consist of member subscriptions plus retained earnings. Subscriptions are payable 25 percent in gold (or in United States dollars) and 75 percent in the currencies of the member governments. Since these national currencies are simply noninterest-bearing debts, the negotiable assets in the Fund consist of gold and of such of the national currencies as are generally acceptable in international trade.

**The purpose of the Fund.** Membership in the Fund provides every member with a limited line of credit available to meet temporary deficits in its balance of payments on current account. A country's quota determines its maximum line of credit. Not more than 25 percent of this maximum may be borrowed in any one year. The quota of \$1,200,000,000 reserved for Russia opened up a line of credit totaling \$1,500,000,000.<sup>2</sup>

The purpose of the line of credit is to give a country a breathing spell during which corrections may automatically emerge or domestic policies may be adopted which will eliminate the deficit on current account without the need of exchange controls or tariff increases. After a transition period, continuation of controls for this purpose requires Fund consent. There is no similar time limit on the right of countries to maintain exchange controls to eliminate deficits in balances of payments on capital account.

To prevent the undue use of its resources the Fund levies graduated service charges, payable in gold, and varying directly with the amount and the duration of the borrowing. Furthermore, a country is required to reduce its line of credit (i.e., repurchase its currency from the Fund) whenever an improvement in its balance

<sup>2</sup> The method of calculating this Russian line of credit is as follows: Prior to borrowing, the Russian quota consisted of \$300,000,000 to be paid in gold and \$900,000,000 in paper rubles. Russia was entitled to sell additional paper rubles to the Fund and to take in exchange currencies needed to meet her foreign exchange obligations until the Fund's holding of rubles reached \$2,400,000,000. \$1,500,000,000 is the difference between \$2,400,000,000 and the \$900,000,000 paid in in paper rubles.

The Russian government insisted upon and secured a quota in excess of what it was entitled to under the formula used for determining quotas. It was thought at the time that the Russian demand was motivated in part by prestige considerations, and in part by a desire to obtain a large and relatively inexpensive line of credit. For reasons that will be suggested later, the Russian government never accepted membership in the Fund. Nevertheless her quota is cited here to show how much help the Fund can extend to a country faced with a temporary deficit in its balance of payments on current account.

of payments puts it in possession of gold, dollars, or other generally convertible currencies. This provision is to prevent a country from using the Fund to finance long-term capital developments or to build up unnecessarily large gold or foreign exchange holdings outside the Fund.

**The Fund and the gold standard.** The fact that quotas are payable partly in gold and partly in local paper currencies requires that each member define its national money in terms of gold or, what comes to the same thing, in terms of United States dollars "of the weight and fineness in effect on July 1, 1941."

Since the foreign exchanges were in a chaotic condition at the time the Articles of Agreement were being drafted (July, 1944) it was provided that each original member country would accept as its initial parity the rate of exchange prevailing on the sixtieth day preceding the entry into force of the Fund Agreement. In the event that this rate was not satisfactory,<sup>3</sup> it could be altered within 30 days at the request of either the member or the Fund. The new rate, unlike the original one, required Fund approval, failing which any member would "be deemed to have withdrawn from the Fund."

After a transition period of five years, members would be required to protect these parities by allowing gold exports and imports whenever demand and supply conditions in the foreign exchange markets drove the prices of their currencies a little above or a little below their official parities. The Fund was to set these limits which would thus correspond with the gold export and import points of the traditional gold standard. On the surface, therefore, the Fund seemed designed to facilitate the return to the old international gold standard.

This was a surprising development in view of the widespread conviction that the gold standard had been responsible for The Great Depression, and that a return to it would deprive governments of the power to carry through domestic full-employment programs. What is the explanation?

**The escape clauses.** The explanation is probably to be found in the two exceptions to the gold standard rules which were to be permitted when countries were confronted with a *fundamental disequilibrium* in their balances of payments, preventing them from securing an adequate supply of *scarce currencies*.

(1) A *fundamental disequilibrium*. Under the Articles of Agreement a member may alter its initial parity by not more than 10

<sup>3</sup> The problem here was the determination of new purchasing power parities. See pp. 351-2.

percent without consent of the Fund. Changes in excess of 10 percent are permitted when necessary to correct a *fundamental disequilibrium*. The Fund may not base an objection on the domestic and social policies of the petitioning government. But if the Fund objects on other grounds, and its objection is disregarded, the government involved may be required to withdraw from the Fund.

The term *fundamental disequilibrium* is not defined in the Articles. Apparently a country is to be regarded as confronted with such a disequilibrium if (a) its price level is so high relative to foreign price levels that the people find it advantageous to buy abroad more than they can pay for through exports and foreign loans, and (b) the correction involves either (i) deflationary measures which the party in power believes would lead to its overthrow or (ii) the imposition of additional restrictions on imports which the Fund believes would be more damaging to international trade than the proposed devaluation.

(2) *The "scarce-currency" concept.* Still more significant is the escape provided through the "scarce-currency" concept. Scarce currencies are due, of course, to the existence of *fundamental disequilibria*. One group of countries cannot have chronic deficits in their balances of payments (the earmark of a fundamental disequilibrium) unless another group of countries has chronic surpluses. The deficits occur because the people in the deficit countries want more of the money of the surplus countries than they can buy at the official parities. Under the terms of the Agreement they cannot bid the prices of these moneys above their parities. Hence the moneys necessarily become scarce.

The term is not defined, but it is evident from the context that the currency of a country will be scarce if (a) the domestic price level is so low relative to foreign price levels that the people find it profitable to sell abroad more than they find it advantageous to buy from abroad, and more than they are willing to finance by voluntary foreign investments or by gifts, and (b) the correction of the situation requires either (i) a deliberately induced rise in the domestic price level or (ii) a reduction of existing restrictions on imports which the party in power believes would lead to its overthrow.

*The concepts compared.* The two concepts obviously represent two sides of the same coin. It is to be noted, however, that escape from a "scarce currency" position involves primarily internal resource readjustments while the correction of a "fundamental disequilibrium" requires both internal resource readjustments and real

but unavoidable sacrifices. Only by importing less or by producing more and exporting more can the situation be corrected. Deflation was the accepted method of escape under the gold standard rules of the 19th century. Devaluation and/or additional restrictions on imports are not alternatives to sacrifices. On the contrary, they are almost certain to increase them. The technicians who drafted the Fund Agreement knew that this was so, but they apparently believed that, if membership in the Fund made devaluation impossible, governments would reject the deflationary escape route in favor of quantitative restrictions on imports which would do more harm to international economic relations than moderate and controlled devaluation. The fundamental disequilibrium concept is designed to provide governments with a politically acceptable method of imposing sacrifices.

No comparable sacrifice is required of a scarce-currency country. All that it needs to do is to stop protecting its relatively inefficient firms and allow its efficient firms to expand.<sup>4</sup> This involves temporary hardships, but even while the transfer is being made there is a net gain for the people as a whole.

*The purpose of the scarce-currency clause.* The scarce-currency clause is a device for forcing a mature creditor country to increase its imports or its foreign lending or its foreign gifts or face discriminatory treatment of its exports. The clause thus provides an escape from the "most-favored-nation treatment" pledges to which Fund members are committed. It is argued that this type of discriminatory boycott will do less damage to international trade than would a general and nondiscriminatory increase in trade barriers. Thus if country A uses exchange controls or additional tariff duties

<sup>4</sup> This is an oversimplification. The statement is true only if the government of a country which is confronted with an alleged fundamental disequilibrium is also willing to permit a shift of resources into those lines of production in which it possesses a comparative advantage, and allow a portion of the resulting output to be exported. At the present writing some governments which complain most vociferously about their fundamental disequilibrium situations deliberately prevent this internal rearrangement of resources and at the same time refuse to create the domestic conditions which might attract foreign private capital and know-how. In such cases the measures which a scarce-currency country is expected to take cannot correct the disequilibrium. When a government acts this way and at the same time alleges that it is confronted with a fundamental disequilibrium, it is in effect claiming that the productivity of its economy is not sufficient to support the level of living its people are entitled to, and that its more wealthy neighbors have a moral obligation to continue to provide them gratuitously with the goods and services needed to maintain this level of living. This attitude is an expression of a definitely anti-capitalistic way of thinking. It is an "ideology," and both the Fund and the Bank are specifically prohibited by their statutes from denying credit to countries solely on ideological grounds. As will appear presently both of these international credit institutions appear to have promoted this unworkable illusion.

to cut imports from country B by 20 percent, because of lack of B's currency, the principle of nondiscrimination requires that it subject imports from countries C, D, E, etc., to the same treatment, despite the fact that its sales to these countries have put it in possession of sufficient of their currencies to enable it to buy as much as before.

Once the Fund declares that the currency of a particular country is scarce, this nondiscrimination requirement ceases to hold. Members may impose exchange controls with respect to that currency, or discriminatory import quotas, with a view to limiting imports to what can be paid for with the scarce currency at hand, without the necessity of imposing any restrictions on their imports from other countries. The clause thus legalizes a collective boycott.

*Foreign fears regarding the United States.* These two exceptions to the gold standard rules are an expression of a fear widely held abroad regarding the risk of a too intimate tie-up with the United States. Perhaps the best way to make clear the nature of this fear is to put it in the form of an imaginary discourse by one of the foreign experts at Bretton Woods where the Articles of Agreement were drawn up.

"Europe and much of Asia are a shambles. The destruction of life and property has been enormous. Without American help the kind of civilization you believe in and we believe in may disappear, never to return. The situation of some of us is particularly serious not only because of the material destruction wrought by the war, but because we have had to sell foreign investments accumulated over many years. The income from these investments is no longer available to help us earn our way in the world. Most of the old creditor countries of Europe are now debtor countries. They must export or die. The greatest single contribution the United States can make to world recovery is to open up its market to our products so that we may earn the dollars with which to buy the many things essential to our early recovery, and which only you are in a position to furnish.

"We are grateful for the unparalleled generosity of your lend-lease program and for your willingness to shoulder the lion's share of the assistance that is even now going out through UNRRA. All that you have asked in return is that we commit ourselves after the war to eliminate discriminatory treatment in international commerce and to reduce tariffs and other trade barriers. Our governments have given you this assurance. You cannot, however, expect us to accord you most-favored-nation treatment in our small mar-

kets unless you conduct yourself as befits your position as the world's mightiest industrial power.

"The reductions in your tariffs made during the 1930s are encouraging, but the administration of your customs is costly, time-consuming, arbitrary and uncertain, and the duties on many products which interest us are still much too high. Nor can we be sure that recent concessions will be continued. The fact that you do not discriminate against us, that you treat us all equally badly, does not enable us to earn the dollars to buy the many things we shall need for our reconstruction.

"Nonetheless we have been sufficiently heartened by your generosity and by the evidence that the protectionist spirit in your country is on the retreat to be willing, despite our serious reservations regarding the workability of the gold standard, to join with you in an attempt to restore it. But we must insist upon escape clauses. The fundamental-disequilibrium and the scarce-currency concepts provide these escapes, which we shall invoke, if, contrary to our hopes, you do not go much further with your tariff reductions.

"But even if you open your market to our products and invest a reasonable proportion of your annual savings abroad, we cannot bind ourselves to maintain indefinitely fixed parities with your money. The temper of our peoples is such that we shall probably not be able to keep pace with you in the introduction of technological improvements. Technological change involves short-run personal insecurity. Rightly or wrongly, our people put a higher value on security and a lower value on progress than do your people. Under a rigid and unconditional gold standard we would have to accept a steady decline in our monetary incomes as the price of doing business with you. Our governments could not bring this to pass even if they wanted to.

"We believe that the concept of a fundamental disequilibrium provides us with a way out of that particular difficulty. Through controlled and periodical devaluations we shall keep our prices competitive in terms of dollars without imposing on our governments the impossible task of getting our workers—for they are the main stumbling block—to accept periodic reductions in their money wages.

"Periodic devaluations, however, provide us with no assurance that we shall be able to enter your protected market, or that we shall be able to avoid being drawn into the periodic slumps which we regard as the inevitable price you have to pay for your youthful enthusiasm for progress. So we warn you that when your willing-

ness to buy from us, or lend to us, or to give to us deprives us of the dollars with which to buy from you, we shall invoke the scarce-currency clause against you. We do not think that our position is unreasonable, because we know, as do you, that all you have to do to prevent us from "ganging up" on you is to open wide your market, as Britain did 100 years ago, when it became the world's greatest industrial power and the world's greatest investor. Just as free trade in Britain inaugurated a period of unparalleled peace and prosperity, for Britain and the world, so now free trade in the United States may bring similar blessings far more rapidly than any of us here even dare hope."

**The Fund: an appraisal.** What is to be said for this ingenious scheme? Can it reconcile the conflicting domestic policies of national governments and enable them to gain the great material advantages that specialization and international trade make possible?

To date the Fund has scored few successes. Governments have devalued their currencies by much more than 10 percent without always waiting for Fund approval. They have continued and even increased their use of the quantitative restrictions which they were supposed to give up, and the Fund has not seen fit to use its disciplinary powers against them. Indeed its insistence on short-run foreign exchange rate stability has forced countries that are committed to inflationary domestic full-employment programs to continue to use the quantitative import restrictions which were to be abolished with the assistance of the Fund. Such withdrawals as have occurred were not due to Fund initiative. Nor has our own foreign aid program been determined by a desire to avoid the "scarce-currency" sanctions.

This record does not necessarily discredit the Fund. It was not designed for the kind of times in which we have been living. Its authors planned it on the assumption that Russia, Britain, and the United States would cooperate in world reconstruction. Given their assumptions, could the Fund accomplish any considerable part of the things its proponents expected? It seems doubtful.

First and foremost, the Fund machinery requires that member governments allow the price mechanism to operate. This does not mean that traditional import and export duties, if moderate and stable over time, are inconsistent with the operating requirements of the Fund, or that governments may not alter the original distribution of money incomes by their taxing and spending policies. These interventions work through prices, and individuals will take account of them in making their decisions. But it does mean that

governments which refuse to allow prices to allocate resources cannot accept even the mild restrictions on their freedom of action which membership in the Fund involves.

It follows that Russia and her satellites could not be in the Fund, even though they were willing to provide all of the information which membership requires. The Communist type of physical planning would be impossible if the Russian people were free to buy in the cheapest markets and if the managers of State plants were free to sell in the dearest markets. Under physical planning, prices are not accurate reflections of consumer preferences, and hence it is technically impossible to fix on rates of exchange which represent purchasing power parities. The foreign exchanges must be controlled because their control constitutes a vital part of the entire planning mechanism.

Nor could Britain under the Labour government—nor indeed any country which makes extensive use of price controls—accept the Fund rules of international behavior. When prices are not allowed to equalize supply and demand and allocate resources as between the domestic and export sectors of the economy, there must be rationing and resource allocation. Price controls, rationing, and resource allocations require the exchange controls and quantitative restrictions on imports and exports that were to be eliminated with the help of the Fund's resources.

If these conclusions are correct, why did teams of eminent economists spend so much time and effort working out the complicated arrangements just described? A possible explanation is that the experts, who were almost all of Keynesian persuasion (with Lord Keynes playing a leading role in their discussion), envisaged a postwar world in which all governments, regardless of their ideological labels, would adopt the Keynesian techniques for maintaining full employment and for securing whatever personal distribution of incomes the dominant forces in their countries regarded as just. Indeed, the United Nations' Charter requires that member governments accept responsibility for maintaining full employment. They were convinced that the Fund rules were not only consistent with the Keynesian techniques but essential to its operation internationally.

The Keynesian technique, it will be recalled, rejects in principle price controls, rationing, resource allocations, labor regimentation, and all the other paraphernalia of physical planning. Prices are to be allowed to perform their normal directive functions while the State uses its taxing, spending, and borrowing powers to get pur-

chasing power into the hands of the people in such amounts and in such proportions as to secure full employment, social justice, and the sense of security and freedom which, it is held, can exist only when men know that there are necessary and remunerative jobs for all.

The problem, as the experts appear to have seen it, was this: how can governments pursue independent and divergent price level policies without the need of insulating their markets from the impact of competitive forces originating abroad? Some governments, for example, will restrict the supply of money with a view to allowing the fruits of technological progress to be passed on in the form of lower prices; others will aim at long-run price stability, with the gains of progress going to factor owners (in capitalistic societies) or to the citizens (in noncapitalistic societies) in the form of higher money incomes; and still others will find that it is easier to maintain full employment if they allow the general price level to rise and let the gains of increased productivity be reflected in a still greater rise in money incomes.

Under the old international gold standard, governments could not control their domestic price levels. International competition forced them to march in lockstep. If any one important country pursued a deflationary price policy, all the others were forced to follow suit even though this caused some unemployment. Nonetheless some common monetary denominator was needed, and, since gold enjoyed universal popular acceptance, the logical thing to do was to define all national currencies in terms of this commodity, but to reserve, to any country which elected to operate its economy with a more rapidly rising price level than its trading partners, the right to devalue its currency periodically so as to keep its prices competitive in foreign markets.

If it is correct that the main purpose of the International Monetary Fund is to harmonize national full-employment programs in accordance with the policy recommendations which Keynesians derive from the theory of effective demand, then the usefulness of the Fund would appear to depend (a) on the validity of the policy recommendations which derive from the theory of effective demand, (b) upon the willingness of socialistic and communistic societies to abandon the use of physical controls, and (c) upon the workability of the Fund mechanism in a Keynesian world.

In Chapter 29 we indicated our objections to the policy recommendations derived from the theory of effective demand. In Chapter 44 we shall describe the kind of socialism the experts appeared

to have had in mind and show why, in our judgment, there is little prospect that convinced socialists, with their strong attachment to the principle of equality, would, or could, abandon physical planning.

But, accepting for the moment the workability of the Keynesian policy prescriptions at the national level, and assuming for the sake of the argument that socialists would substitute financial planning for physical planning, does it follow that the Fund mechanism could resolve the international conflicts that have hitherto plagued national planning? We believe that it cannot.

The mechanism is not flexible enough. It is simply not possible for an international agency to consider requests for authority to devalue or appreciate the currencies of countries that are committed to maintain full employment at any cost and reach decisions with the required frequency, speed, and secrecy. If it becomes known that a country is even contemplating a change in the official parity of its currency, speculation for the fall or the rise sets in immediately. If a devaluation is in prospect, a country can be denuded of its gold and foreign exchange holdings in a matter of days. This being so, the orderly, time-consuming, and necessarily public procedures for altering exchange rates required by the Fund are out of place. For countries committed to financial planning for full employment it is not possible to return to even the qualified gold standard of the International Monetary Fund. As long as they maintain the official parities, they are forced to maintain exchange controls for transactions on current account as well as on capital account. For such countries, and for their trading partners as well, the best solution is to establish convertible but freely fluctuating exchanges which will accurately reflect short-run shifts in the supply of and demand for foreign exchange. Countries that want to use free domestic market prices as directives without submitting those prices to the disciplines of the international gold standard must accept the losses as well as the gains of fluctuating exchange rates or, if they define their moneys in terms of gold, their exchange rates with other countries soon become highly unrealistic. They must either abandon gold or defend these unrealistic rates through domestic price controls, exchange rationing, import and export quotas, and all the other paraphernalia of physical planning.

If these conclusions are correct, it would appear that the International Monetary Fund reduces rather than increases the prospects

that the nations will return to competitive capitalism. It encourages *the illusion* that national planning and international specialization on the basis of comparative advantage are compatible.

What then should be our conclusion? The economist as economist is not qualified to make the final decision. Political decisions may justify the continued existence of the Fund. Given the exaggerated nationalism present in most countries and the wide-spread fear of "Colonial Exploitation" in many of the very poor countries, it is arguable that the Fund, as an international organization, could play a constructive role through its ability to extend or withhold credits and to authorize or disapprove changes in parities. But for it to play such a role the Articles of Agreement will probably have to be amended in a number of respects. This is not the place to discuss possible amendments. All that can be said at this time is that from a strictly economic point of view the Fund has not to date been able to promote the kind of international behavior that is needed if countries are to rely on market forces to integrate their economies one with another.

### THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

The International Bank was created at the same time as the Fund. It is a publicly owned multigovernment investment agency authorized to issue common stock up to a total of \$10 billion. The amount of stock for which a government may subscribe is fixed in the Articles of Agreement. The subscription quotas of the original members are roughly the same as for the Fund, somewhat less for the poorer ones, somewhat larger for the wealthier countries, since a government's subscription involves a requirement to lend internationally. (Our subscription of \$3,175 million is almost \$500 million larger than our Fund quota.)

The Bank, like the Fund, is located in Washington. By the end of 1953, 53 countries had taken up in full their subscription rights to a total of just over \$9 billions.<sup>5</sup>

**Organization.** The Bank is organized like a private corporation. Each country appoints a Governor who casts as many votes as his government owns shares in the organization. The effective direction is in the hands of a small Executive Committee and a President and Staff.

<sup>5</sup> Russia and most of her satellites are not members. Czechoslovakia is still technically a member but has not completed payment of its subscription.

The governments representing the five largest stockholders are automatically Members of the Executive Committee. The others are elected by the Governors of the remaining countries, and cast votes in proportion to the number of shares of stock held by the countries they represent.

**Purpose.** The principal purpose of the Bank is to promote international investments for the reconstruction of the countries damaged by the last war and for general developmental purposes, with particular consideration for the needs of the so-called "underdeveloped countries." Secondary purposes are the promotion of the long-range growth of international trade, the maintenance of equilibrium in national balances of payments, and the raising of the productivity, standards of living, and conditions of labor in the borrowing countries. Loans are not to be made simply for the purpose of helping countries balance their payments on current account. This is the responsibility of the International Monetary Fund.

**The Bank's lending capacity.** The maximum which the Bank may lend may not exceed its unimpaired subscribed capital, plus its earned reserves and surplus. Actually its ability to lend is likely to be limited for some time to come to (a) the proportion of its paid-up capital which member governments are required to lend by the Articles of Agreement or are willing to make available, and (b) the amount which the Bank can borrow in the private money markets of its members.

Each government is required to pay 2 percent of its subscription in gold or in United States dollars and 18 percent in its own currency. The remaining 80 percent is only callable to make good the failures by borrowers. This balance is thus in the nature of a *reserve guaranty fund*. Consequently the Bank's *direct* lending power is limited to its *2 percents paid in gold* and to so much of the *18 percents* as member governments agree to release. The United States is the only country which to date has agreed to release its 18 percent in full. Thus the Bank may make dollar loans out of its own resources up to 20 percent of our subscription (\$635 million) plus all of the 2 percents, and smaller nondollar loans in such local currencies as are convertible and available for international investment purposes.

The Bank's *indirect* lending power depends upon the confidence which private investors place upon the reserve guaranty fund (which for the most part consists of legal claims on the inconvertible currencies of member governments) and upon the economic soundness of the Bank's loans.

**All loans are guaranteed.** The Bank may loan to governments, to their political subdivisions, to public corporations, and to private firms. In all cases the central government of the country involved must guarantee the loan both as to principal and interest. Until the currencies of more countries become freely convertible, the ability of the Bank to sell its bonds will depend primarily on our 20 percent and upon the soundness of the securities in its investment portfolio. If the debtors honor their obligations punctually and in full, the Bank will be in possession of a modest revolving fund for fresh lending. It seems unlikely, however, that its loans will approach the \$9000 million figure which represents the present paid-in capital as long as most currencies are inconvertible.<sup>6</sup>

**The cost of borrowing.** The Bank's service charge (interest plus commissions) is fixed slightly above the rate at which it is able to borrow money. The charge is intended to meet its own expenses, including the cost of borrowing, and a reasonable reserve against bad debts.

**The criteria for lending.** The loans are for specific purposes for which funds cannot be had on "reasonable" terms through ordinary commercial channels. This "reasonable" test makes it inevitable that the demand for loans will exceed the supply of loanable funds. Hence the Bank is required to determine the relative needs of the borrowing countries and to satisfy itself that the specific projects for which it agrees to supply funds are more important than any others which might be proposed. The Bank is expected to take account of the total foreign borrowings, private and public, of the countries with which it does business, the uses to which all borrowed funds are put, the domestic policies of the borrowing and lending countries, and, most difficult of all, the relative importance of all of the proposals before it. The physical productivity of a proposed project is not enough. Evidence is required that the project when completed will either reduce the borrowing country's need for imports or increase its exports sufficiently to provide the foreign exchange required to service the loan. It is obvious that the decision to eliminate the interest rate as a rationing device requires an extraordinary degree of competence on the part of the individuals who have to make the final decisions. Political considerations cannot be entirely eliminated. The Bank may not, how-

<sup>6</sup> At the end of August, 1952, the Bank had made loans of just under \$1,500 million to 27 countries and had successfully sold some \$500 million of its own bonds, primarily in the American money market, but with small issues sold in the Swiss, Canadian and British markets.

ever, reject a loan for purely political or noneconomic reasons. This proviso was introduced into the Articles of Agreement to make sure that countries which were unwilling to create conditions that would attract foreign private capital directly would not thereby be prevented from securing it indirectly and on more favorable terms through the International Bank.

**The usefulness of the Bank.** Given the virulent nationalism presently prevailing in the relatively underdeveloped countries, and their fear of "economic imperialism," the resumption of international investment has proved very difficult. The Bank can help overcome this psychological barrier. Being a multigovernment institution, with the vast majority of its Governors representing the poorer borrowing countries, it can insist upon standards which would be unacceptable if laid down in a direct government-to-government loan or in a private loan. To date the Bank's investment decisions have met with general approval in American foreign investment circles and it has had no difficulty raising the funds needed to finance every venture which the Executive Committee and the staff have regarded as economically sound.

The real test of the Bank's usefulness will come when its outstanding bond issues pass the mark which represents the limit of the guarantee offered by the gold 2 percents and the 18 percent in American currency to which we are committed. In effect the Bank's bond sales to date have had the credit of the United States behind them. Beyond that point, they will have to depend much more on the public appraisal of the projects themselves.

This new situation may strengthen the position of the Bank. It will be forced to say to would-be borrowers that its ability to help depends upon its ability to sell its bonds to private investors on their merits and that this, in turn, will depend on its ability to convince private investors of the economic soundness of the projects which it finances.

**The Bank and private enterprise.** Those who believe in the superiority of privately managed over publicly managed business are somewhat concerned lest the Bank unduly encourage public ownership in the borrowing countries. The requirement that the government of the borrowing country guarantee all loans necessarily gives public agencies a preferred status as borrowers. Private enterprises which need foreign capital hesitate to ask for a public guarantee because of the public control which always goes with such guarantees. It is not surprising, therefore, that almost all of the Bank's loans to date have gone to developments to be carried out under

public auspices. Moreover, the Bank may not, as has already been noted, reject a loan application purely and simply on the basis of an ideological preference for private enterprise.

In an effort to get around this pronounced bias in favor of public enterprise the Bank is now studying a proposal to establish an *International Finance Corporation* as an affiliate. The member governments would provide the initial capital, but the Corporation's investments, which, it is hoped, would be more in equities in private enterprises and less in bonds of public agencies, would not enjoy any government guarantees.

It remains to be seen whether this is a practical proposal. Quite aside from the public-versus-private enterprise aspect of the issue, it would certainly be desirable to see more of the international flow of capital take the form of equity investment, since this form of investment reduces the strain on a borrowing country's balance of payments in periods of poor business.

But the Bank, with or without this affiliate, cannot bring about any large resumption of international capital movements unless the borrowing countries (1) possess an entrepreneurial class capable of discovering and exploiting domestic investment opportunities; (2) are prepared to create domestic conditions which make it worth while for their own citizens with surplus funds to keep their capital at home; and (3) are willing to allow their economies to be integrated with other economies on the basis of comparative advantage. Foreign capital will always be hesitant about going into a country on the basis of special privileges which are denied to private domestic capital. A country which can keep its own capital at home only by drastic penalties is generally regarded as a bad investment risk by foreign capitalists. Finally a country which uses foreign capital to develop activities that cannot meet the test of international competition will also prove a bad risk.

As the President of the International Bank pointed out at the sixth annual meeting of the Board of Governors:

Foreign capital cannot be broadly effective in the absence of local capital. Foreign advice will be useless unless there are roots for it to nourish.

At best, outside capital can provide only a margin over and above what a people are doing for themselves. It can be the margin between failure and success, but only when there is a substantial local effort. And there can be such an effort only when a nation has a will to develop—when there is a drive within the country itself to improve the living standards of its people, and a government which reflects that drive.

If governments are encouraged by the existence of the Bank to refuse to create a favorable domestic investment environment, then the International Bank in the long run may reduce rather than increase the international movements of capital it was designed to promote.

*Questions:*

1. Discuss the International Monetary Fund under the following headings:
  - (a) qualifications for membership,
  - (b) assets of the Fund,
  - (c) the purpose of the Fund,
  - (d) comparison of the methods of adjusting to balance of payments difficulties under the Fund and under the old international gold standard, and
  - (e) the reasons for the relaxation of the rules of the international gold standard.
2. Under appropriate circumstances, the Fund's Articles of Agreement permit countries to discriminate against imports from countries whose currencies have been declared to be "scarce," i.e., to depart from the most-favored-nation treatment required in principle of all Fund members.
  - (a) Explain what is meant by "most-favored-nation treatment."
  - (b) Identify the circumstances under which a country's currency may be declared "scarce."
  - (c) Explain the argument in support of the thesis that discrimination is less harmful to international trade than a general nondiscriminatory increase in tariff barriers by countries confronted with a fundamental disequilibrium.
3. "Countries committed to the physical planning of production and distribution through price controls and countries committed to financial planning for full production cannot accept even the qualified gold standard rules of the International Monetary Fund."
  - (a) What is the difference between the two types of planning referred to in the preceding statement?
  - (b) Explain the reasoning behind the statement, and, if you disagree, defend your position.
4. Distinguish between (a) the purposes of the Bank and the Fund;  
(b) the legal limit to the Bank's ability to lend and the practical limit.
5. Explain the reasons for and discuss the wisdom of the provision that

the Bank may not reject a loan application "for purely political or noneconomic reasons."

6. It has been charged that the Bank unduly encourages public ownership in the borrowing countries. What is the basis for this charge?
7. What conditions in the so-called underdeveloped countries must the International Bank promote if its loans are to increase the grand total of international lending?

## *Contemporary Issues (Cont'd)*

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### THE INTERNATIONAL LABOUR ORGANIZATION

THE International Labour Organization (ILO) was established as part of the League of Nations' system and is the only part that survived the League. It is now affiliated with the United Nations.

**ILO objectives and organization.** The declared purpose of the ILO is to raise labor standards, particularly in industrially underdeveloped countries, and to protect standards in the industrially advanced countries. It operates through annual conferences composed of representatives of organized labor, organized business management, and government delegates. Each country is represented by a single spokesman for *all* labor, a single spokesman for *all* business, and two citizens, who may or may not be permanent civil servants, who act as spokesmen for the national interests and the wider interests of consumers generally. A permanent Secretariat assembles the facts regarding working conditions throughout the world, considers ways and means of improving labor standards and regularizing employment, and formulates recommendations and draft conventions for consideration by the annual conferences. After approval these documents are transmitted to the member governments for appropriate action. The recommendations, in general, represent aspirations; the conventions aim at reforms believed capable of immediate adoption and enforcement by member governments.

The conventions take the form of detailed draft treaties which must be submitted by member governments to their appropriate legislative bodies within one year after their adoption by the ILO Conference. In the case of the United States the appropriate legislative body is the United States Senate. If it ratifies an ILO con-

vention by a two-thirds majority, the provisions of the convention become the supreme law of the land and, as some think, superior even to the Constitution itself.<sup>1</sup>

It was the hope of the supporters of the ILO that the enormous variations in labor standards in different parts of the world could be narrowed as a result of the publicity, advice, and pressure generated by this new international organization. The plane of international competition was to be elevated and humanized. Since the threat to labor standards in the industrially advanced countries was thought to come from goods imported from the industrially underdeveloped countries, the conferences quite naturally concerned themselves primarily with labor standards in the export industries of the several member countries. It is held that the leveling up of

<sup>1</sup> Many of the Conventions which our delegations have assisted in passing (usually, with our government representatives casting the decisive votes within the American delegation) require action by the federal government which is beyond its constitutional powers, as presently interpreted. The possibility of circumventing the cumbersome and time-consuming procedures of constitutional amendment by the simpler treaty process has aroused considerable misgivings in the minds of those who attach importance to our federal form of government. To safeguard against this possibility some 60 Senators recently signed their names to a Joint Resolution which was referred to the Committee on the Judiciary (February, 1952). It called for an amendment (the so-called Bricker amendment) to the Constitution which would, among other things, require that any treaty which altered or abridged the laws of the United States, or the Constitution or laws of the several states, would have to be passed by both houses. (S.J. Res. 130, 82nd Cong., 2d Sess.) A few months later the author of this Joint Resolution submitted a Concurrent Resolution which read in part as follows: "Whereas the delegates appointed to represent the Government of the United States at conferences of the International Labor Organization have from time to time voted for the adoption of conventions which may prejudice the Federal-State character of our constitutional Government; . . . Now, therefore, be it resolved by the Senate (the House of Representatives concurring), that it is the sense of the Congress that . . . such delegates should not vote in favor of any proposal—whether in the form of recommendations or conventions (1) which may prejudice the Federal-State character of our constitutional government, or (2) which are incompatible with our basic constitutional principles . . ." (S.Con. Res. 83, 82d Cong., 2d Sess.)

On June 4th, 1953 the Senate Judiciary Committee recommended to the Senate for adoption a revision of the earlier Joint Resolution which reads as follows:

"Section 1. A provision of a treaty which conflicts with this Constitution shall not be of any force or effect.

"Section 2. A treaty shall become effective as internal law in the United States only through legislation which would be valid in the absence of treaty.

"Section 3. Congress shall have power to regulate all executive and other agreements with any foreign power or international organization. All such agreements shall be subject to the limitations imposed on treaties by this article."

A detailed account of the constitutional issue favorable to the Bricker amendment is to be found in Felix Morley's *Treaty Law and the Constitution*, No. 448 in the series "National Economic Problems," The American Enterprise Association, New York: 1953.

For a persuasive statement of the case against the Bricker amendment, see the Brief of the Bar of the City of New York (*The Record of the Association of the Bar of the City of New York*, Vol. B, No. 4, April 1953).

standards will take the sting out of international competition, foster international trade, and make of it an instrument of peace instead of war. Particular reliance is placed upon organized labor in low-wage countries to bring their governments into line and to enforce any agreements that may be reached. The ILO accordingly endorses and actively promotes trade unionism everywhere as a great democratic institution. The method of representation presupposes the formation in each country of a single central labor organization and of a comparable association of a nation's businesses.

**The ILO has made protectionism respectable.** This sounds like an admirable program, but are the means appropriate and were the motives of the original sponsors equally admirable?

Mr. Gompers, the then head of the American Federation of Labor, for example, is on record as saying that his British conferees secured his and the Federation's endorsement of the ILO idea by convincing him that American labor had much to gain if the governments of underdeveloped countries could be induced to raise labor standards in their export industries. In a symposium on the ILO held at the University of Virginia in 1935, a permanent member of the organization's staff stated that the fiat narrowing of labor standards would enable high-wage countries to dispense with high tariffs.<sup>2</sup> British and American and Western European labor generally favored the ILO because they saw in it a device to protect their own standards. It provided a morally approved substitute for the tariffs which enlightened people everywhere had come to recognize as threats to the peace.

Actually there is no reason why the Organization should be so concerned with labor standards in the export industries of the backward countries. In general these are the most efficient industries with labor standards substantially higher than those prevailing in the bulk of the primitive and domestically oriented industries. The people in underdeveloped countries must rely on the ability of these industries if they are to secure adequate supplies of foreign capital and technical know-how. Moreover, the prices of these products must be low if they are to be within the reach of the masses of the people in the underdeveloped countries.

**Its means defeat its ends.** If our concern is with the common man in India, China, South America, and other industrially underdeveloped countries, have we any moral right to impose upon their export industries wages higher than an *efficiency minimum*?<sup>2</sup> The efficiency

<sup>2</sup> James T. Shotwell, Editor, *The Origins of the International Labor Organization*, Columbia Univ. Press, New York: 1934.

minimum wage will undoubtedly result, in many cases, in very substantial profits, but this is the price people in poor countries must pay if they are to attract substantial amounts of foreign capital. If the resulting profit margin offends the sense of equity of the people in the underdeveloped countries—and the decision should rest with them—and if, as may frequently be the case, where law and order and the protection of property rights prevail, the margin is more than sufficient to maintain a steady in-flow of foreign capital, the government may very well tax away the excess. This excess can provide funds for roads, education, public health, and other services beneficial to the entire population. It can also provide a good deal of the foreign exchange needed for industrial development. Used in this fashion these funds will have a far more powerful leverage effect on the national income and the nation's well being than if they are diverted to a small and privileged group of workers in the shape of wages higher than needed to staff the expanding modernized segment of the economy. Indeed, pending the development through education of the tastes and preferences that are essential if private enterprise is to flourish, such an increase in wages is more likely to lead to increased absenteeism than to increased output per man hour.<sup>3</sup>

No surer way of perpetuating poverty in underdeveloped countries can be imagined than to impose upon their export industries labor standards high enough to protect the branches of these same industries located in the advanced industrial countries. The sincerity of the concern of people in wealthy countries with the abject poverty in many parts of the world can be tested by their readiness to allow the modernized industries in underdeveloped countries to take over an increasing share of the task of supplying the world with the products of these industries.

This is the price which the people in "advanced" countries must pay if they really want to improve conditions in less favored areas. And the total price, as we have seen, is not heavy.

In the short run, admittedly, some people get hurt. But this is no justification for blocking the only process by which poverty can be relieved in large areas of the world. Men of good will may, however, very properly insist that the labor and capital in the exposed industries should not be required to assume the entire burden of the transitional suffering. Just as the governments of underdeveloped countries may properly use the taxing power to diffuse the benefits

<sup>3</sup> This is likely to happen in countries where standards and levels of living tend to coincide. See discussion on p. 176.

of industrialization, so may the governments of industrially advanced countries use the taxing power to provide the funds needed to indemnify, in part at least, the capital and to assist the labor in the exposed industries to find new jobs. A comprehensive job-training and -placement service, together with unemployment compensation, can and should be made into powerful instruments for keeping the labor market fluid and reducing the human costs involved.

But what have the people in the industrially developed countries done? While protesting their concern with the deplorable conditions in backward countries they have passed restrictive immigration laws, raised tariffs, and then, by way of adding insult to injury, they have called upon the governments of these countries to impose on their industries, and particularly on their export industries, labor standards that reduce their ability to attract needed capital. In effect they insist that the people in poor countries shall eat their bread before they get the foreign flour (capital) with which to bake it.

It is true that differences in national wage-paying capacity have always received formal recognition in the ILO's proposals. But it is also true that organized labor in the advanced countries would very quickly have lost enthusiasm and the tepid interest of business groups would have cooled if the Organization had recommended the bare efficiency standards, which would minimize unit wage costs. By definition such standards would increase the pressure on competitive industries in the advanced countries. Hence the ILO was obliged to aim higher than that, if it was to keep the support of its influential friends; and it did.

**The accomplishments of the ILO.** To date the actual accomplishments of the ILO in the field of wages and hours have been slight. The representatives of the poorer countries solemnly endorse the recommendations and conventions coming out of the annual conferences, but their governments are careful not to saddle on their export industries standards that would raise their costs and make it impossible to sell in foreign markets. And our Senate has ratified very few of the conventions endorsed by the American delegations to the conferences.

Nonetheless, the ILO has provided a forum where representatives of labor and capital from many parts of the world can meet and discuss their common problems. Its technical committees have given valuable counsels to the governments of many of the industrially underdeveloped countries. It has strengthened the hands

of labor leaders in countries where the threat of communism is great. The real function of the ILO is educational. It would be desirable, therefore, that the power of the Conference should be limited to the making of recommendations, and that the recommendations should have the support of a majority of each of the three groups of delegates—employers, workers, and government—rather than the two-thirds of the entire group of delegates as at present.

### THE INTERNATIONAL TRADE ORGANIZATION

In November 1945 the American Government, after consultation with the British Government, issued a statement entitled *Proposals for Expansion of World Trade and Employment*. In February 1946 the Economic and Social Council of the United Nations voted to call an international conference on trade and employment with the American proposals serving as the agenda for the conference. A preparatory committee was appointed, and preliminary meetings of experts were held in London in late 1946 and in Geneva in 1947. Finally the full Conference met in Havana, Cuba, in 1948 and brought forth the Havana Charter for an International Trade Organization.

**The ITO Charter.** Like the Articles of Agreement of the International Monetary Fund, this charter attempts to reconcile the trading policies of countries which are committed to varying degrees of national planning. As in the case of the Fund the assumption is made that the political reasons for restricting world trade will largely disappear if all countries will carry out successful domestic full-employment programs.

Membership in the Organization gives the government of a country the right to raise objections to the policies of another country when it believes that the interests of its own nationals have been hurt; conversely, it is obliged to consider the protests of other members when a change in its policies, dictated by domestic considerations, adversely affects the interests of the nationals of these members. Protectionists everywhere have been too prone to say that the tariff is purely a domestic issue. This explicit recognition of the fact that a nation's trade policy is a matter of international concern is what makes the Charter significant.

The Charter is a long, complex, and extremely technical document. While it gives generous lip service to the need for stable exchanges, convertible currencies, and moderate and stable tariffs as prerequisites for bringing about a durable expansion of world

trade, it also recognizes that a country cannot pursue a resolute full-employment program without the aid of a battery of devices which can easily be used for protectionist purposes—higher tariffs, quantitative restrictions on imports, exchange controls, etc. Consequently the Charter legalizes many devices dear to the hearts of protectionists, provided only that the avowed purpose is to further domestic development and full employment and not to protect the home market.

The Charter never got out of the United States Senate Committee to which it was referred by the Administration. It now appears unlikely that the ITO will ever become a going concern. Its death in Committee appears to be due, on the one hand, to the excessive fears of American protectionists that membership would force us to adopt free trade, and, on the other, to the conviction of Americans favoring freer trade that the “escape clauses” in the Charter actually rationalize and legalize old-fashioned protectionism and, worse still, render it respectable. Evidence of the concealed protectionism in the Charter is found in Chapter II, Article 7, where it is stated that member governments “recognize that unfair labour conditions, particularly in production for export, create difficulties in international trade, and, accordingly each Member shall take whatever action shall be appropriate and feasible to eliminate such conditions within its territory.” Here again we find this concern for conditions in the precise sector of a nation’s economy where there is least need for concern.

### THE GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

Even before it became evident that the Senate would not ratify the ITO Charter the Administration undertook to promote its main objective of expanding world trade through the General Agreement on Tariffs and Trade.

The General Agreement was drawn up by representatives of the governments which participated in the second or Geneva session of the United Nations Preparatory Committee for the U.N. Conference on Trade and Employment. The governments which ratified the Agreement are known as “Contracting Parties.”

**Procedures and accomplishments.** Twenty-three countries ratified the Agreement at Geneva (1947), and there and then undertook (a) to make mutual reductions of tariffs, (b) to maintain low duties or free entry where such treatment was already in effect, and (c) to curb the use of quantitative restrictions on entry, through

quotas and exchange rationing, and preferential treatment of goods originating in certain countries. Some 45,000 items, involving products which accounted for more than one-half of world trade in 1938, were affected by the network of bilateral agreements negotiated at Geneva. In general all the "Contracting Parties" accepted the most-favored-nation principle and extended any concessions granted in their negotiations with one party to all the others.

The constitutional authority for our participation in these negotiations rests upon the Reciprocal Trade Agreement Act of 1934, as amended and renewed from time to time.<sup>4</sup> GATT is thus a device for speeding up the reduction of trade restrictions. In the 14 years, 1934-1947 inclusive, we negotiated 29 agreements through the Reciprocal Trade Agreement Act. At Geneva in the course of a few weeks we negotiated 22, and we secured all of the concessions which these 22 made with one another.

Since Geneva, additional governments have ratified the Agreement and there have been frequent meetings of the Contracting Parties—at Ancey, France, in 1948, at Torquay, England, in 1950, and again at Geneva in 1952. As a result of the negotiations at these meetings the United States has on paper become one of the "Low Tariff" countries of the world. It can be shown, for example, that the average burden placed on all goods (free and dutiable) entering the U. S. after rising from 9.1 percent under the Underwood Tariff (1914-22) to 17.8 percent in 1931 under the Hawley-Smoot Tariff of 1930, had fallen to 5.6 percent by 1951 and that the average burden placed on dutiable goods, after similarly rising from 27 percent to a high of 53.2 percent, fell to a low of 12.5 percent.

### IS THE AMERICAN MARKET STILL PROTECTED?

The last phase of our foreign economic policy to be considered in this chapter is foreign economic aid. Since the close of World War II our government has given away more than \$40 billion and the aid is still running at the rate of about \$5 billion a year. Public opinion abroad as well as at home is becoming doubtful about the wisdom of trying to rebuild and knit together the economies of the free world on this basis. Increasingly the demand is heard abroad that our assistance should take the form of "trade, not aid."

Before discussing our foreign aid program we shall consider the

<sup>4</sup> The Reciprocal Trade Agreement Act of 1934 was extended by the Congress in 1937, 1940, 1943, 1945, 1948, 1949, 1951, and 1953.

charge that the American market is still a highly protected market. The figures cited at the end of the preceding section, if taken at face value, appear to indicate that any economic difficulties foreign countries are having are not due to the American tariff. There are a number of reasons, however, for believing that our tariff is still too protectionist in terms of our present position as the world's greatest industrial and creditor country.

**Averages misleading.** In the first place an average figure, such as the 5.6 percent given in the preceding discussion, proves very little regarding the liberality of our terms of entry. This can be illustrated as follows: Let us assume that the potential imports into a country, i.e., all that would enter under completely free trade, consist of 10 commodities. Duties are levied on four of these as shown below, while the others are admitted free, because they cannot be produced within the country.

Commodity	Duty	Value of Import \$	Duty Paid \$	Percent of Dutiables	Import Value Free and Dutiables
1	50	none	none		
2	40	100	40		
3	20	200	40		
4	10	1,000	100	13.8	
5	free	10,000	none		1.67
.	"				
.	"				
.	"				
10	"				

According to this table the average duty on all dutiable goods is 13.8 percent, and on all free and dutiable goods it is only 1.7 percent. These figures take no account of the fact that the duty on commodity 1 is so high as to exclude all imports, while those on commodities 2 and 3 permit only token imports. The figures give us no clue as to the quantities of these four commodities that are excluded by the tariff. The freedom of entry accorded to commodities 5 to 10 is obviously not an evidence of liberality.

**Customs procedures.** In the second place the over-all averages in the table reveal nothing regarding the bureaucratic red tape which must be unwound before an importer can get goods cleared through customs and find out just what he must pay in the way of duties.

The complexities of our customs procedures are frequently more protectionist than the duties themselves.

**Relative costs.** In the third place the substantial lowering of duties on thousands of items does not prove that present rates are necessarily less protectionist than the old Hawley-Smoot rates. If our costs of production on these items have fallen more than the costs of production abroad, and there is reason to believe that this has frequently been the case, many rates may still be highly protective. Thus it is quite possible that there is a valid basis for the widespread foreign charge levied against the American tariff.

**Uncertainty.** But the worst feature of our tariffs is their uncertainty. The concessions from the Hawley-Smoot rates have all been for very short periods of time—never for more than three years and frequently for as little as one year. Furthermore the Administration found it necessary, as the political price for the Congressional renewal of the Act, to insert, first, an “escape clause” and, later, a “peril point” clause into all agreements. The escape clause provides for the cancellation of any reduction “when the product on which the concession has been granted, is, as a result, in whole or in part, of the duty or other customs treatment . . . being imported into the United States in such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry producing like or competitive products.”<sup>5</sup> The “peril point” clause requires the Tariff Commission to report to the President “the degree of injury to an industry to be expected of a concession under consideration.”

In 1952 the attitude of foreign businessmen toward our tariffs was reported to President Truman by his Secretary of Commerce in the following language:

In each country we encountered inquiry as to our tariff policy, customs procedures, and the probable attitude of the United States on the whole question of trade relations. The feeling is general that the United States can help in promoting healthy international trade by a lowering of tariff barriers and a simplification of customs procedures. The latter is regarded as being as important as the lowering of tariff barriers.

In practically every country we visited the point was made that modification of United States tariff policy was not enough; it is important for European businessmen to know that our tariff policy will not arbitrarily be reversed when some European producer succeeds in marketing his goods in the United States.

<sup>5</sup> The escape clause as above quoted is from Sec. 6 of the Trade Agreement Extension Act of 1951.

It was stated with considerable force that, before European businessmen incur the expense of promoting enterprises which will export commodities to the United States, they would need some assurance that these investments will not be made valueless by subsequent prohibitive import duties or by subsidies placed by our country upon competing articles.

Referring to American invocations of the "escape clause" the Secretary went on to point out that the concern of Europeans

... is much greater than is realized by the average American. We might cite as examples recent United States Government actions affecting the exportation of dried figs or raisins from Greece or Turkey to the United States or cheese from several European countries.

While these actions were generally unknown to the general public in the United States, they were well known, not only in the several countries directly affected but all over Europe, and had not only economic but psychological significance. It would be well for the Congress and our Executive agencies dealing with such matters to be aware of the effect which apparent unimportant actions taken by them can have upon the economies of European countries.

**Protection no longer in the national interest.** Regardless of whether high tariffs speeded the transformation of the American economy from its early agrarian and raw material producing status to its present status of advanced industrialism, they are no longer in our national interest. The industries which would benefit from free trade are our most efficient industries. The ever-present danger of war does not alter the situation since, in general, our efficient industries are precisely the ones which are important in the event of war. If there are others essential to national defense which would be destroyed by free trade, they could be preserved by outright subsidies.

An abrupt shift to complete free trade is neither politically possible nor economically desirable. Politically there are too many vested interests that would be hurt. As a practical matter our elected representatives not only must but should consider these interests. They are incorporated in the enterprises called into existence by our past protectionism. There would be large property losses and considerable and unnecessary transitional unemployment if the capital and labor attached to these enterprises were suddenly forced to compete on equal terms with foreign enterprises.

Our own interests as well as those of our trading partners require that we avoid a major depression. Such a recession would provoke governmental interventions which would further weaken

popular confidence in private enterprise. In any event it would almost certainly revive protectionist sentiment at home and strengthen abroad the protectionist tendencies which we have been trying to overcome for the past twenty years.

Fortunately the restoration of international trade does not require that we should adopt free trade now, however desirable that may be as an ultimate goal. What is important now is that we should see to it that all of our tariff duties on goods produced by firms which still require protection *are low enough to permit foreign suppliers to share the American market*, and that we make it known that these duties will not be raised even though, in the end, whole industries have to be sacrificed as a result. One way of accomplishing this would be for the Congress to adopt the Reciprocal Trade Agreement Act without a specified time limit and for the Executive to negotiate long-term trade treaties under its authority. This would give foreign businessmen the assurance they need that the American market is worth cultivating.

**Stable tariffs lose their efficacy.** The significant thing about moderate and durable tariff duties is that, in the course of time, they lose their protectionist effect. The dollars which foreigners earn by selling to us are spent for the goods and services of our efficient industries. In time these industries will expand at the expense of our less efficient industries. Their competition for resources will raise the costs which the others must meet. To survive they must be able to raise their prices, but if foreign goods are already entering our market they cannot do so.

Such a tariff policy would slow down but would not prevent adaptations. International specialization and trade based upon the principle of comparative advantage would bring about a slow contraction of our less efficient industries. As the durable equipment in these industries wore out, invested capital would be withdrawn in the form of liquidating dividends and reinvested in the expanding and efficient sectors of the economy. There would be no sudden collapse of employment in these declining industries, particularly if the workers attached to them were prepared to accept wages slightly lower than those prevailing in the expanding industries. Young workers would avoid the declining industries, and normal turn-over and retirements would protect the jobs of those so specialized or so old as to make shifting difficult or impossible. Meantime, unemployment compensation would cushion the impact for those workers who did lose their jobs as a result of the growth of

imports. Additional protection for this group could be provided by authorizing the President to extend the unemployment compensation benefit period in a particular industry upon receipt of a declaration from the Tariff Commission that employment in that industry was being seriously reduced as a result, in whole or in part, of the duty or other customs treatment being accorded to foreign suppliers of like or competitive products.

The conclusion reached in this section is that the American market is still a highly protected market. This fact introduces a fundamental inconsistency into our total foreign economic policy. In particular, it makes it difficult for us to terminate the expensive foreign aid program which has now been under way for more than a decade.

### FOREIGN AID

**The extent of the aid.** From the beginning of Lend-Lease<sup>6</sup> to June 30, 1952, the American government had made available through loans and gifts the grand total of over \$90 billion in goods and services to foreign lands. Approximately \$40 billion of this total represented military lend-lease aid. During the last months of the war we gave some \$3 billion through a special agency of the newly created United Nations (the United Nations Relief and Rehabilitation Administration or UNRRA) to assist the populations in the territories evacuated by the retreating German armies. Our subscriptions to the International Monetary Fund and the International Bank provided further assistance through international auspices. In the 8 years, 1945-1952, foreign aid totaled \$37.3 billion, ranging from a high of \$7.1 billion in 1945 to a low of \$2.6 billion in 1947. It was still running at the \$4.5-billion level in 1952, seven years after the end of the war. Unlike our aid following World War I, all of these vast sums were channeled through governments.

**The results of the aid.** Our wartime aid was responsible for the final and complete defeat of Germany and Japan. It also contrib-

<sup>6</sup> This Act, passed in March, 1941, nine months before our entry into the war, authorized the United States to supply munitions, materials, and food to any country which the President might designate as aiding the defense of the United States. The Act further provided that the final method of settlement should be such as not to burden international trade. It also required that all countries receiving lend-lease aid should agree to take action after the cessation of hostilities directed "to the elimination of all forms of discriminatory treatment in international commerce, and to the reduction of tariffs and other trade barriers." See William Adams Brown, Jr. and Redvers Opie, *American Foreign Assistance* (Brookings Institution, Washington, D.C.: 1953) for a complete and up-to-date review of this vast foreign aid program.

uted substantially to the industrial development of Russia.<sup>7</sup> In general, however, our Lend-Lease contributions to victory cannot be counted as part of our contribution to world recovery. On the contrary, it enabled our European allies to go on fighting until they were closer to a complete economic breakdown than would have otherwise been possible.

Our interest here is in knowing how effectively our postwar aid has contributed to the rebuilding of a peaceful world economy.

Considering the conditions which prevailed in the summer and fall of 1945, the progress in economic recovery has been striking. A Brookings Institution study found that by the summer of 1951 the main objectives of our aid program in Europe "seemed to be almost accomplished . . . most countries had achieved, or appeared to be on the road to achieving, internal stability and prices and money wages during the first six months of 1950 remained remarkably stable. . . . Outside Europe progress was also being made in repairing the dislocations and devastations of war."<sup>8</sup>

In December 1952, the United States Secretary of Commerce reported to the President that he and the members of his European mission "had been impressed by the tremendous recovery" that had been made by all of the countries which had been assisted by our aid programs. They had found the general level of economic activity to be about 40 percent above prewar.

**Our objectives.** Judged, however, by what we had hoped to accomplish, the results left much to be desired. We wanted to re-establish intra-European trade and triangular trade between Western Europe, the poor and populous raw-material-producing countries outside the Russian orbit, and the United States, by which Western Europe would earn the dollars it needed by an excess of exports to the raw-material-producing countries, and they, in turn, would earn dollars by their favorable balances with the United States. In brief, we sought to create a broad European free-trade market (European integration) which would lend itself to the application of American mass production techniques, and to integrate this market into a larger "free-world" market made up of the British Commonwealth of Nations, Greece, Turkey and the vast and populous areas to which the term "the underdeveloped countries" had come to be applied.

Until this larger integration has been accomplished, the Amer-

<sup>7</sup> Russia received almost \$11 billions of lend-lease aid. An appreciable fraction of this took the form of industrial equipment.

<sup>8</sup> Current Issues in Foreign Economic Assistance (1951).

ican aid program cannot be called a success. This was the verdict reached by Professor Howard Ellis, past President of the American Economics Association in a study he made for the Council on Foreign Relations. He found the accomplishments, as judged by the test of effective integration, to have been few and the results disappointing.<sup>9</sup>

**The emergence of Point 4.** With the outbreak of war in Korea, American foreign aid was increasingly earmarked for military preparedness. Only with respect to the Point 4 program for "underdeveloped countries," announced by President Truman in his 1949 Inaugural Address, was economic aid given primacy over military assistance. The declared purpose of this program was to give to the peoples in the relatively underdeveloped countries access to our technical knowledge and our scientific methods of analyzing and solving social and economic problems. It was to enable them to hire technical experts in various fields (health, education, road building, power plant construction, and factory layout) rather than to buy and import modern capital goods. It would be up to the peoples concerned to raise domestically or borrow abroad the capital needed to implement the development programs recommended by the experts. As the President pointed out, the material resources which we could provide were highly limited, whereas the imponderable resources in technical knowledge were constantly growing and inexhaustible.

Had the Korean war not broken out, our economic aid to Europe was scheduled to terminate as of fiscal 1951. Had that happened it seems probable that there would have been a serious economic relapse in Western Europe unless, indeed, we had been prepared to put far more into the Point 4 program than had been suggested by the President's announcement.

It would thus appear that the method of bringing about an integrated recovery pursued by the United States since 1945 requires an almost indefinite continuation of American grants-in-aid to many, if not most, of the countries of the free world. If this is so, it is difficult to escape the conclusion that there has been something wrong with the method. Surely a free gift of some \$40 billion should have sufficed to restore a workable international economy in which each country would be able to earn its own way.

**Why the effort failed.** It should be recognized, however, that the adaptation we sought to promote was bound to be very difficult. The cold war with Russia had torn an important part of the world

<sup>9</sup> *The Economics of Freedom* (1951) pp. 370-1.

from old fabric of trade. Trading relations with the countries within the Russian orbit had almost ceased, and it was our avowed objective to break them off entirely. This meant that new channels of trade had to be started. Unless we were prepared to make our vast internal market the focal center for a new trade pattern, the densely populated and industrialized countries of Western Europe could dispense with outside help only at the expense of a considerable fall in their levels of living. Meantime the burden of armament, as pointed out earlier, had placed a heavy mortgage on their resources, and the ever-present threat of war made international investments seem exceptionally risky.

The very magnitude of the problem made it all the more important that our foreign economic policy should promote and not block the desired adaptations. The reductions in our tariff barriers, while not sufficient, represented a constructive contribution to our over-all objective.

It is difficult to escape the conclusion, however, that our foreign aid program involved serious inconsistencies. These inconsistencies appear to have been due to our unwillingness to recognize that the re-establishment of the automatic and impersonal mechanisms of the market are essential prerequisites to the international integration we sought to promote. Instead of assisting countries to re-establish private enterprise, we virtually forced them to adopt national plans and then to iron out the inevitable conflicts in plans through political negotiations. We failed to recognize that this is a task that politicians, however well-intentioned they may be, simply cannot accomplish. What had to come first was a leveling of trade barriers, the introduction of stable and dependable currencies, and the restoration of reasonable free movements of goods from country to country on the basis of price differences. In the absence of international price comparisons and international competition, it was quite impossible to know what enterprises should be rebuilt in the different countries, and what historic lines of activity should be expanded or contracted. Hence, as physical recovery proceeded, it became increasingly apparent that many lines of activity in every country would have to be protected, if they were to survive. Consequently it became increasingly difficult to get rid of the tariffs, quotas, and exchange controls which blocked the creation of the wide international markets essential to high productivity. By encouraging the assisted countries to put domestic recovery ahead of stable and convertible currencies and moderate and stable tariffs, we made impossible the fulfillment of the

high hopes which the performance of the American economy had aroused, unless indeed we were prepared to continue foreign economic aid indefinitely.

### CONCLUSION

In this and the two preceding chapters we have traced the foreign economic policy of the United States during the last 50 years. We have noted a growing awareness of the fact that our position as a Great Power in a highly interdependent world requires that we build up strength and material well being in the free world. There has been a far greater reduction in American tariffs than anyone would have dared predict 20 years ago. Unfortunately the fear of competition has prevented us from giving foreign businessmen the assurances they need that recent tariff concessions will be continued should they succeed in developing profitable markets within the United States. It has also led us to try to protect our domestic market indirectly by encouraging the governments of other countries to impose wage and welfare standards (through the ILO, for example) that they cannot yet afford.

Just as this misplaced humanitarianism has forced us into expensive domestic federal aid programs, so too it has induced us to undertake an extraordinarily expensive foreign aid program which cannot easily be terminated. Yet sooner or later it will have to terminate. Sound international relations cannot be built on gifts. One of the great tasks confronting the American Congress today is the formulation of a sound long-term economic policy and a transitional short-term program which will preserve for us any national benefits that may have accrued from our emergency post-World War II policies and which will, at the same time, be consistent with the kind of social and economic system we are trying to preserve at home.

#### *Questions:*

1. Describe briefly the origin, organization, and objectives of the ILO, the procedures for realizing its objectives, and its concrete accomplishments.
2. "There is a striking similarity between the objectives of the ILO and the American New Deal." Indicate the points of resemblance suggested by this statement.
3. Explain (a) the difference between an ILO Recommendation and

an ILO Convention, and (b) why Conventions have raised the issues of "states' rights in the United States."

4. Discuss critically the wage theory which appears to be accepted by the majority of the delegates to the ILO conferences and compare it with that underlying our own Fair Labor Standards Act.
5. "A persuasive case can be made in support of the proposition that the influence of the ILO is thrown in support of a form of protectionism that is more detrimental to the long-run interests of the industrially underdeveloped countries than are high protective tariffs." Defend or rebut.
6. Identify the ITO, the objectives which it sought to realize, the appropriateness of the procedures provided in its charter for realizing these objectives, and the present status of the proposal.
7. Identify GATT, the constitutional authority for the trade agreements negotiated under GATT, and the reasons why American tariffs may still be effectively protective.
8. Explain the thesis defended in the text that, although protection is no longer in the national interest, the immediate adoption of complete free trade is neither necessary nor desirable as a means of exposing the American market to effective competition.
9. (a) Compare the pattern of territorial specialization and trade that existed prior to 1914 with that which we have tried to develop through our participation in the International Monetary Fund, the International Bank, and our foreign aid and Point 4 programs.  
(b) Explain why, according to the text, the large dollar sums made available through the Fund, the Bank, and the direct aid programs failed to bring about this new pattern of specialization.  
(c) Outline the kind of foreign economy policy the authors regard as consistent with the requirements of the kind of economic system we are presumably trying to maintain domestically.
10. Argue for or against the thesis that poor countries could not successfully compete for American private savings even if they were able and willing to provide the kind of environment needed to attract private investment funds.



PART TEN

*Fiscal Policy*



## *Fiscal Policy and Private Enterprise*

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**Fiscal policy defined.** The word “fiscal” in the term “fiscal policy” refers to the spending, taxing, and borrowing of government. The word “policy” in the phrase indicates that the problem of objectives is involved. What are the proper objectives of fiscal policy? Our concern in this chapter is limited to an identification and appraisal of objectives that are generally regarded as consistent with the operating requirements of a private enterprise system. The fiscal policy objectives appropriate for a socialistically organized society are discussed in Chapter 45.

**Fiscal policy objectives classified.** Any attempt at a clear-cut classification of fiscal policy objectives involves oversimplification. One set of objectives grades into the next set. Nonetheless it will be easier to understand the evolution of our own federal, state, and local finances if we recognize four sets of policy objectives which have successively represented what may be called “the prevailing view.” With a view to identifying each set of objectives briefly we shall refer to them as (1) orthodox or traditional fiscal policy, (2) traditional humanitarian-welfare fiscal policy, (3) orthodox compensatory fiscal policy, and (4) humanitarian full-employment fiscal policy. For purposes of analysis we shall rearrange the sequence, treating compensatory fiscal policy immediately after orthodox fiscal policy.

Needless to say the actual evolution of federal, state, and local public finances has not waited upon the intellectual formulation of these four sets of objectives. Political and economic forces have shaped the course of events. In one sense these fiscal policy positions represent no more than a rationalization of prevailing practices.

Yet in another sense they have prepared the way by providing the political and economic arguments for those special interest groups that wanted to bring about a change in the functions of governments and in the distribution of the burden of supporting those functions.

### ORTHODOX FISCAL POLICY

Orthodox fiscal policy is based on the assumption that market forces tend to keep the economy operating at full employment and to distribute the national output among factor owners in accordance with the importance of their contributions to the over-all results. The main responsibility of government, therefore, is to maintain the conditions that are necessary if market forces are, in fact, to promote the general welfare. Adam Smith's summing up of the three principal duties of the sovereign in Book V of his *Wealth of Nations* still represents the most compact statement of the orthodox position regarding the proper functions of government:

According to the system of natural liberty, the sovereign has only three duties to attend to; three duties of great importance, indeed, but plain and intelligible to common understandings: I. the duty of protecting the society from the violence and invasion of other independent societies; II. the duty of protecting, as far as possible, every member of the society from the injustice or oppression of every other member of it, or the duty of establishing an exact administration of justice; and III. the duty of erecting and maintaining certain public works and certain public institutions, which it can never be for the interest of any individual, or small number of individuals, to erect and maintain, because the profit could never repay the expense to any individual or small number of individuals, though it may *frequently* do much more than repay it to a great society.<sup>1</sup>

This statement of the functions of government provides the tests to be applied to orthodox fiscal policy objectives.

**Government spending.** The expenditures of government are determined by the need for funds to carry out as economically as possible the limited number of functions which can be performed only by the State. This spending involves the transfer of resources from the private to the public domain. The transfer is to be effected through the prices which the State offers to resource owners. These prices should be just sufficient and no more than sufficient to bring about the transfers. They should not be higher simply because the State can raise additional funds through its power to tax. Nor should

<sup>1</sup> The reader is referred to the discussion of the State in Chapter 20 for evidence that the last of Smith's functions is formulated in such a way as to give the whole statement a considerable degree of elasticity and adaptability to changing conditions.

they be lower because the State can compel individuals to part with their resources at less than market prices through the exercise of its "police power." In brief, the phrase "as economically as possible" means that the State's bids for resources should be based on the prices prevailing in the private sector of the economy.

**Government revenues.** The government's revenues should equal its spending and be determined entirely by the spending requirements of the government. Public functions should not be expanded simply because tax and other revenue receipts happen to exceed the current level of spending. Rather the government should reduce the amount that it takes from the citizens as taxpayers in order to leave them as consumers larger incomes to use as they choose.

**The distribution of the burden.** The State's power to tax enables it to distribute the burden of supporting government in a wide variety of ways. It can place the burden almost entirely on the broad masses (as was the practice under mercantilism), or on the minority of wealthy persons, or it can be spread over all the people roughly in proportion to their incomes. A revenue system of the first sort is known as *regressive*, one of the second sort as *progressive*, while the third is referred to as *proportional*. Furthermore the State can finance part of its current needs by borrowing. This borrowing may be in the open market where the government is forced to compete with private firms and individuals for loanable funds. But the State can also issue fiat money or compel the Central Bank to lend to it at an artificially low rate of interest.

**Borrowing.** In general the orthodox fiscal policy position is hostile to borrowing except for well-defined purposes. Leaving aside the problem of the propriety of borrowing to finance a war, the general orthodox rule is that the government may properly borrow in the open market those funds needed to finance long-lived public improvements, provided it increases its levies on the citizens in succeeding years to pay the interest and repay the principal of the loan within the economic life of the improvements. Thus, if a public courthouse is going to cost the people in a small community \$500,000 and it is expected to last for 50 years, there is no objection in principle to finance the building by a loan rather than a temporary and very sharp increase in the levy on the citizens of the community during the building period.

**Paying for current expenses.** The portion of the State's expenditures that are to be financed with nonborrowed funds fall into two categories. First, there are those that benefit identifiable individuals in a way that can be measured, or those that are due to public activ-

ities which are made necessary by the activities of private persons and private firms. Second, and much more important, are the public expenditures that benefit the whole society but not any given individual in a way that can be precisely measured. The orthodox position is that expenses of the first sort should be charged to the persons who receive the measurable benefits or who are responsible for the public activities and hence the public expenditures. The balance of the public expenditures should be met through taxes levied on the citizens *in proportion to their incomes*.

This concept of proportionality is embodied in the first of Adam Smith's famous maxims or canons of taxation. "The subjects of every state ought to contribute toward the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State." The assumption here is that the existing distribution of incomes, in so far as it conforms with functionally correct factorial rewards, is "just" to exactly the same extent that the enterprise system itself is "just." If monopolies and restrictive practices have created economically unjustifiable differentials in factorial rewards and hence an ethically indefensible personal distribution of rewards, the State should take steps to eliminate the objectionable practices rather than tolerate them and then try to correct them through taxation.

This breakdown of current expenditures into special and general categories provides the basis for a similar breakdown of the devices for raising revenues. Special expenditures should be defrayed, as far as possible, by special levies related to the services provided by the State. These services may be of a commercial or of a noncommercial character. Expenditures for general purposes which cannot be covered by special levies should be paid for through taxes of various sorts. Fees, prices, licenses, and special assessments are the names given to the principal public charges that fall in the first category. They obviously conform most closely with the *quid pro quo* principle of the private enterprise system. The State renders a vendable service and levies a charge to cover the costs, or it is forced to incur an expense which is in the general interest but which is due to the activities of identifiable parties and it requires that they pay the costs.

A general textbook in economics is not the place to discuss in detail the nature of these special charges. It suffices here to point out that orthodox fiscal policy favors the generous use of these levies both because of their conformity with the rationale of a

market economy and because they reduce the portion of the public spending which must be met through taxes—the second and much the more important category of devices needed to meet the current expenditures of the State.

It was regarding *taxes* that Adam Smith declared that they should be levied as nearly as possible in proportion to the revenues which the citizens enjoy under the protection of the State. Ideally, the best tax, according to this maxim, would be a universal and proportional tax on the net incomes of the citizens. If 10 percent of the personal incomes of the citizens is needed to meet public expenditures which have not been met by borrowing or by the special *quid pro quo* levies, then each and every personal income, large and small, should be liable to a 10 percent tax.

**Other maxims or canons of taxation.** Administrative considerations make it impossible for the State to rely entirely on a single universal and proportional personal income tax. The cost of collecting from persons with very small incomes would be excessively high. Furthermore the definition and the measurement of net income are far from simple. It presupposes that all taxpayers keep elaborate records and properly distinguish between their gross receipts and the expenses incurred in the earning of their gross receipts, including proper allowances for write-offs for depreciation and obsolescence. Income in kind, which is very important in the case of farmers, is difficult to capture.

For these and other reasons orthodox fiscal policy recognizes the desirability of a variety of special taxes each designed to reach the personal incomes of the citizens in a particular way. Adam Smith's maxim of proportionality is regarded as applying to the totality of the taxes rather than to any one of them. For the taxes taken individually, Smith suggested three other maxims which deserve to be quoted in full, because they are as applicable to the conditions prevailing today as they were to those with which Smith was concerned.

2. The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person. . . .

3. Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it. . . .

4. Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the State. A tax may either take out or keep out of the pockets of the people a great deal more than it brings

into the public treasury, in the four following ways. First, the levying of it may require great numbers of officers, . . . Secondly, it may obstruct the industry of the people, and discourage them from applying to certain branches of business which might give maintenance and employment to great multitudes. . . . Thirdly, by the forfeitures and other penalties which those unfortunate individuals incur who attempt unsuccessfully to evade the tax, it may frequently ruin them, and thereby put an end to the benefit which the community might have received from the employment of their capitals. . . . Fourthly, by subjecting the people to the frequent visits and the odious examination of the tax-gatherers it may expose them to much unnecessary trouble, vexation, and oppression; and though vexation is not, strictly speaking, expense, it is certainly equivalent to the expense at which every man would be willing to redeem himself from it.

In the next chapter we shall have occasion to note the multiplicity of special taxes which modern governments use to secure the revenues needed to cover an expanding array of public functions. At this point we merely want to point out that many of these taxes take relatively more from persons with small incomes than from those with larger incomes. As a consequence the tax system as a whole tends to be regressive unless a sufficient degree of progression is introduced into the income tax and the death duties.

This situation led many proponents of orthodox fiscal policy to advocate the introduction of progression into the personal income tax and into the death duties long before government even ventured to try to tax incomes directly or to levy on the estates of decedents. It was argued that the concept of proportionality for the tax system as a whole constituted an adequate safeguard against the danger that the progression might be pushed so far as to weaken the incentives on which the private enterprise system depends.

Today orthodox fiscal policy is dismissed as "reactionary." It is well to remember that at the time it enjoyed its greatest repute it was "radical" in the sense that it called for a lightening of the tax burden resting on those at the bottom of the income scale and the spreading of it equally over all income classes.

To sum up, the orthodox fiscal policy position is as follows: (1) the State should take from the citizens no more than is necessary to the effective performance of a relatively limited number of functions; (2) it should raise as much as possible of these revenues through special levies on individuals and firms that derive special and measurable benefits from its activities or that are directly and measurably responsible for the need for these governmental activities; (3) the State should raise the balance through a combination

of borrowing (to cover large and irregular outlays resulting in the creation of durable public goods) and taxing; (4) the taxes, taken individually, should be certain, convenient, and economical, and, taken as a whole, should be proportional; and (5) the taxes should be adequate in the sense of sufficient to cover regular and recurrent expenses and to reduce the outstanding public debt at least as rapidly as the wear and tear (depreciation and obsolescence) of the durable assets which occasioned the debt.

### ORTHODOX COMPENSATORY FISCAL POLICY

The impact of pre-Keynesian business cycle theories on orthodox fiscal policy objectives was relatively slight. These theories all stressed the need for flexibility in labor and capital markets and for the tendency for depressions to taper off and give way to recoveries. Most of them recognized, however, that the forces making for a contraction feed upon themselves for a time and hence lead to a greater contraction than is needed to prepare the way for a rearrangement of the production-mix in accordance with changes in the pattern of consumer spending and saving as it manifests itself at the upper turning point of the cycle. This line of thought led to a fairly general agreement that the government could carry out its functions (by and large, the same functions as those regarded as appropriate by orthodox fiscal policy) in a way that would reduce the amplitude of the up- and downswings of the business cycle.

**Budgeting for the cycle.** Specifically it was quite generally held that the government should deliberately refrain during good times from launching costly projects involving the creation of durable public goods, like school houses, public buildings, roads, etc., and then push them during the downswing of the cycle. It was further held that the government should maintain its current operations and its spending for these purposes, even though the decline in the yield of cyclically sensitive taxes made it necessary for government to borrow money. In other words, government should not hesitate to go into debt during depression periods.

**Debt policy.** There was no tendency, however, to regard debt creation as good *per se*. On the contrary, most non-Keynesian business cycle theorists held that the success of the fiscal policy which they recommended depended upon the ability of the government to repay during the ensuing recovery the entire debt incurred during the depression for the purpose of maintaining current expenditures. The general rule regarding the repayment of debt incurred to finance long-lived improvements was modified only to the extent that

repayment should be suspended during a recession and then resumed at an accelerated rate once a recovery was well under way.

If we describe the orthodox position as favoring the annual balancing of the regular operating expenditures of government, the one here under consideration may be described as favoring cycle balancing of expenditures and revenues. Both accept the principle of the balanced budget. The first, however, would treat each 12-month period as a natural unit of time and keep revenues and expenditures in balance on an annual basis (always with an allowance for long-term borrowing to finance long-term improvements). The second modifies this position only to the extent of holding that the appropriate unit of time is the period in which the economy moves through the four phases of the cycle, and that the balance should occur over this longer unit of time.

Summarizing, compensatory fiscal policy accepts the main points of orthodox policy: (1) a budget balanced at the level determined by the normal functions of the State; (2) no effort to change the personal distribution of income through taxing and spending; (2) no long-term debt creation except for purposes of adding to the durable assets of the State. The only significant change is in the concept of the balancing period, the cycle and not an arbitrary 12-month period. This change countenances temporary debt creation in depression periods to maintain current expenditures, but requires the repayment of this debt in the ensuing recovery period.

#### TRADITIONAL HUMANITARIAN-WELFARE FISCAL POLICY

**It rejects large personal inequalities.** The fiscal policy objectives to be discussed here grow out of the idea that gross personal income inequalities are in and of themselves undesirable and that they cannot be reduced to socially tolerable limits through improving the competitiveness of market forces. The market, no matter how perfect, is bound to produce increasing inequalities over time because of the great differences in individual capacities and the cumulative role played by the right of bequest. Consequently the State must protect the market and keep it competitive, but it must do more than that.

**It advocates taxing for equalization purposes.** The State must use its power to tax and to spend in order to reduce personal inequalities. Through expenditures on education, on health, on slum clearance, old-age assistance, etc., it can reduce the number and improve the quality of those who bring to the market the most abundant and

hence the least-rewarded skills. In time, education will change the composition of the labor force, raising the rewards going to the relatively unskilled and decreasing those going to the more skilled. Meantime, personal inequalities will be further reduced by requiring the wealthy minority to provide much more than their proportionate share of the costs of this public investment in society's human resources. All this can be done without interfering with market forces directly. They are to be permitted to determine, in the first instance, factorial rewards and hence the personal distribution of incomes. The State then undertakes a secondary redistribution of the national income more in accord with "justice."

**Taxes should be based on ability.** Adherents of what may be called "capitalistic humanitarianism" accept the orthodox position that the State should balance its budget and should fix its spending and its revenue requirements in accordance with the requirements of its enlarged welfare functions. But instead of Adam Smith's maxim that each citizen should pay taxes in proportion to the revenues which he enjoys under the protection of the State, members of this school of thought argue that the distribution of the burden should be according to ability. This, they point out, was the way in which Smith first phrased his maxim, and that error crept in when he held that ability varies directly and proportionately with "revenue," whereas in fact ability to pay increases more than in proportion to "revenue."

**Diminishing marginal utility.** The development of the theory of diminishing marginal utility during the last quarter of the 19th century has been used to support the case for making the revenue system as a whole progressive. This concept, it will be recalled, was first used to explain the response of a person to the offer of additional units of a single standardized product. It explains why, beyond a certain point, the acquisition of each additional unit yields less satisfaction than that derived from the preceding unit. Consequently an individual will attempt to distribute his total demand (as represented by a supply of money) over an array of goods in such fashion as to equalize the satisfactions derived from the last dollar spent on each of the goods in his possession.

The advocates of progressive taxation claim that the principle of diminishing marginal utility applies to income itself. It is held that, as income increases, the added satisfaction derived from each addition to income is less than that derived from the preceding increment. Consequently, the transfer of a unit of income from the richest man in the community to the poorest man in the community

will increase the total satisfactions derived by the community taken as a whole. The loss of satisfactions experienced by the richest man will be less than the increase in satisfactions experienced by the poorest man. Logically the richest man should be taxed until his income is brought down to that of the second richest man and thereafter their incomes should be brought down to that of the third, etc., while the proceeds are used to bring the income of the poorest man up to that of the second poorest, and then their incomes should be raised to that of the third poorest, etc.

Space limitations do not permit us to discuss the weighty objections that have been raised to the application of the principle of diminishing marginal utility to money and money incomes.<sup>2</sup> It suffices here to note that the argument leads logically to the conclusion that complete income equality represents the best distribution of incomes in the sense that anything less than complete income equality will diminish the total satisfactions which the community might enjoy.

During the long agitation for the adoption of progressive income and death duties, the opposition pointed out the implication of the argument and predicted that, if governments once abandoned the principle of proportionality, they would be like ships without a rudder. Political forces would inevitably drive them onto the shoals surrounding the harbor of complete income equality and that it would be necessary to throw overboard the heavy but powerful motor of self-interest to prevent the ship from foundering. Once within the harbor the ship of state would have to stay there, protected from the international trade winds and the rough waves of domestic and foreign competition. Passengers and crew alike would soon find that life aboard ship was cramped, monotonous, and austere. The possibility that the captain might have to exercise tyrannical powers to keep order was not seriously considered until after Professor Mises's attack on socialism in the early 1920s.<sup>3</sup>

These fears of the opponents of progression were brushed aside as examples of the danger of basing policy on pure logic. The good sense of the people could be counted on to halt the process of equalization at the point where any further attempts at dividing the existing pie (the national output) more evenly would result in a reduction of the size of the pie to be divided tomorrow.

<sup>2</sup> Walter J. Blum and Harry Kalven, Jr., *The Uneasy Case for Progressive Taxation*, The University of Chicago Press, Chicago: 1953; Bertrand de Jouvenal, *The Ethics of Income Redistribution*, Oxford University Press, Oxford: 1951; F. A. Hayek, "The Case against Progressive Taxation," *The Freeman*, Dec. 28, 1953, pp. 229-231.

<sup>3</sup> See p. 654.

The fiscal policy objectives of humanitarian welfare capitalism were formulated and urged prior to those described in the preceding section. They differ from orthodox fiscal policy primarily in two respects: (1) They would widen the functions of the State and hence its spending by undertaking activities which would improve the capacity of the poor to help themselves. (2) They would distribute the burden of supporting these activities in such fashion as to reduce personal income inequalities. It is not until later that they get linked up with compensatory fiscal policy, on the one hand, or humanitarian full-employment fiscal policy, on the other.

### HUMANITARIAN FULL-EMPLOYMENT FISCAL POLICY

With the appearance of Keynes' *General Theory* the controversy regarding the appropriate fiscal policy objectives for a private enterprise economy became more animated. In general the adherents of welfare capitalism embraced the Keynesian set of objectives wholeheartedly just as most adherents of orthodox fiscal policy accepted the modifications of fiscal policy suggested by orthodox business cycle theories. Thus, at the present time, most economists can be classified as adherents of orthodox compensatory fiscal policy or of the fiscal policy to be discussed in this section.

We propose here to summarize very briefly the policy objectives that can be logically derived from the Keynesian analysis. Actually there is a considerable overlap of the two schools of thought regarding fiscal policy, just as there is a similar overlap between most of the orthodox theories of the business cycle and that based on the theory of effective demand. Few authors push their theories to their logical conclusions, but there are always men seeking public office who show less restraint when an extreme argument can be turned to their advantage.

**Budgeting for full employment.** A point to note here is that the Keynesian analysis greatly strengthens the humanitarian argument in favor of income equalization. Regardless of how far income equalization may have already gone, still greater income equalization is urged not merely because it will tend to increase total community satisfactions, but also because it will help solve the saving-investment dilemma which may, at any time, bring on a depression. A proper objective of fiscal policy is not budget balancing over the cycle. That is too timid an objective. The proper aim is budgeting for full employment. The State, and only the State, is supposed to be able to produce surpluses and deficits in its accounts of the size

needed to offset fluctuations in business spending (capital formation) and in the nation's foreign account.

**The role of the public debt.** This position leads to a radical change in the significance assigned to the public debt. The debt is no longer to be regarded as a public burden to be avoided where possible and to be repaid as rapidly as possible when incurred to finance current operations. Debt creation is now regarded as an appropriate, although not the only, means of creating the volume of effective demand needed to encourage the growth of the national economy, the maintenance of full employment, and the translation of increasing per capita output into increasing factorial rewards, with an increasing share of these rewards going to wages and a decreasing share to interest.

The idea that a growing national debt represents a growing burden is held to be fallacious, at least in so far as the debt is domestically held. The real burden of the debt is the interest charge and the taxes needed to pay the charge; the payments themselves are nothing more than internal transfer payments. If the distribution of the tax burden happened to correspond with the distribution of the bond holding, the net burden would clearly be represented by the cost of collecting the tax and distributing the interest—an insignificant item in the gross national product. But even if this happy coincidence is lacking, the net burden is still the same. All that happens is that the taxes and the interest payments cause a slight change in the personal distribution of the national income. In a society with an unequal personal distribution of wealth and income, this change runs in favor of the wealthy, but this effect can easily be offset by a slight increase in the progressivity of the personal income tax and of the death duties on large estates.

If the national debt is growing, the thing to watch is the total interest charge expressed as a fraction of the gross national income. As long as the gross national income is increasing faster than the interest charge, there is no cause for alarm. The debt itself is never a burden. All that it does is measure uncovered government spending of earlier periods. If that spending was misdirected and wasteful, then the community today is less well equipped with real capital than might otherwise be the case. The thing to scrutinize, therefore, is the character of the spending and not the source from which the funds are derived. In times of serious unemployment, debt-financed public spending that creates employment is almost sure to be productive since it uses labor that would otherwise be idle. Hence the opportunity cost is virtually nil.

**Functional finance.** An extreme but logical extension of the fiscal policy objectives here under consideration is the concept of "functional finance" which is associated with the name of Professor Abba Lerner and to which reference was made in the earlier discussion of a completely managed currency system.<sup>4</sup> According to this doctrine the main purpose of taxation is not to raise money to cover the expenses of the State, but rather to withdraw from circulation an excess of purchasing power which threatens to cause inflation in an economy operating at the full employment level. Conversely an increase in public expenditures is not to be undertaken primarily to enable the State to perform old functions better or to add new service functions, but primarily to get more purchasing power into the hands of the citizens so as to prevent a decrease in effective demand which threatens to produce unemployment. This purpose can be accomplished equally well by a reduction of taxes, with expenditures maintained.

We have now completed our very brief review of four views regarding the proper fiscal policy objectives for a private enterprise economy. In the next chapter we shall trace in very summary fashion the development of taxing, spending, and borrowing at the federal, state, and local levels and note how far we have moved toward the fourth set of objectives. But before doing that there is need for a few words regarding the compatibility of these various objectives with the political requirements of our federal form of government.

### FISCAL POLICY AND FEDERALISM

According to traditional American political theory ultimate sovereignty rests with the people. They form a government and give to it such elements of sovereignty as are necessary to permit them to live at peace with one another and to get certain things done which, to quote Adam Smith, "though they may be in the highest degree advantageous to a great society, are, however, of such a nature that the profit could never repay the expense to any individual or small number of individuals."

At the outbreak of the American Revolution the American people gave these necessary elements of sovereignty to their state governments. Following the successful war of independence the people discovered that their several states were using the sovereignty entrusted to them in such fashion as to provoke discord and the danger of war between the states. Accordingly they agreed to form a more

<sup>4</sup> See p. 296.

perfect union and to transfer to a central government to be established on a site ceded by the states of Maryland and Virginia a few limited and enumerated powers, including the power to borrow money and to levy directly on the citizens of the several states for the funds needed to discharge these limited functions. Section 8 of Article I of the Constitution provided:

The Congress shall have the power to lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defense and the general welfare of the United States; but all duties, imposts and excises shall be uniform throughout the United States.

This uniformity requirement prevented the federal government from making effective use of the income tax prior to the passage of the Sixteenth Amendment in 1913. This amendment authorized the Congress "to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several states, and without regard to any census or enumeration."

The purpose of this section is to note the changes in the original concept of federalism that become necessary if the fiscal policies of the federal, state, and local governments are to promote the objectives involved in the four sets of objectives set forth in the immediately preceding pages.

**Federalism and orthodox fiscal policy.** The problem of reconciliation does not arise in connection with the orthodox set of fiscal policy objectives. The states and the federal government both possess revenue sources amply sufficient to carry out the very limited functions sanctioned by this school of thought. Indeed, the original concept of federalism and the then prevailing orthodox fiscal policy views proved entirely compatible over the first hundred years of the union.

The complications arose when public opinion began to demand that the federal government play a more active role in the economic life of the country.

**Federalism and compensatory fiscal policy.** The inherent difficulty in connection with compensatory fiscal policy is in getting 48 states and the thousands of counties, towns, and cities within these states to maintain current expenditures during bad times and to expand and contract postponable public works in unison and in a counter-cyclical fashion. As we shall see later, state revenues are exceedingly sensitive to the fluctuations in general business conditions. The public demands that public improvements be undertaken when additional tax money is easily come by, and it also demands rigid economies and tax reductions when depression hits. Theoretically the

states could do the job. The difficulty is that if some states pursued this policy while neighboring states did not, movements of unemployed workers from the states which refused to "play by the new rules" might defeat the efforts of those which adopted the new rules.

This situation forces advocates of compensatory fiscal policy to consider ways and means by which the federal government could induce the states to synchronize their fiscal policies. Since this issue arises still more acutely in connection with the next two sets of policy objectives, no more need be said about it at this point.

**Federalism and humanitarian-welfare fiscal policy.** Federalism effectively blocks a resolute pursuit of egalitarian welfare objectives by the several states. High progressive taxation of personal incomes by state governments is impossible unless all unilaterally agree to adopt roughly the same rates. Nor can the states undertake to carry out the many welfare programs called for by this set of fiscal policy objectives unless all the others do likewise. The complete freedom, guaranteed by the Constitution, of people and of capital to move across state lines forces the states, acting individually, to adhere fairly closely to what we have called orthodox fiscal policy objectives.

**Federalism and humanitarian full-employment fiscal policy.** Everything that has been said about the incompatibility of federalism, as it was originally conceived, applies *a fortiori* to humanitarian full-employment fiscal policy. If the people want this kind of a fiscal policy they must accept far-reaching changes in functions assigned to the federal government and in the allocation of tax resources as among the federal government and the states and their political subdivisions.

We shall have occasion in the next chapter to see the ways in which we have attempted to reconcile our political attachment to federalism with our desire to have government play a larger role in economic affairs.

### Questions:

1. Define "fiscal policy" and identify the four sets of fiscal policy objectives discussed in this chapter.
2. Describe briefly the basic assumptions which appear to underlie each of these four fiscal policy objectives.
3. Argue for or against the proposition that Adam Smith's formulation of the duties of the sovereign justify many of the activities carried on by modern governments.

4. "The State's power to tax enables it to distribute the burden of supporting the State in a variety of ways." Describe the various ways in which the modern state raises revenues and indicate with respect to each whether (a) it is based on the ability-to-pay principle or the benefit principle, and (b) it is regressive, proportional, or progressive in its effect.
5. Define the terms *ability-to-pay*, *the benefit principle*, *regressive*, *proportional* and *progressive taxation*.
6. Describe briefly Smith's famous "canons of taxation."
7. Discuss critically the arguments for and against the proposition that the principle of diminishing marginal utility justifies the use of highly progressive taxation.
8. Discuss critically the thesis that a domestic debt is socially costless. Relate this discussion to the discussions of the method of financing World War II as set forth in Chapter 25.

## *American Fiscal Policy*

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OF THE four views discussed in the preceding chapter, orthodox compensatory fiscal policy probably enjoys the greatest repute among economists. Yet it is the only one which has never really been put into practice. Neither democratic nor autocratic governments appear to be able to do what the policy requires.

The reason is fairly obvious. Spending is always popular. It has proved easy to increase spending in depression periods, but difficult to reduce spending with the return of prosperity and to maintain taxes simply for the purpose of debt reduction. A fiscal surplus invites increased spending. There are always so many more useful things to do than to reduce the public debt. Compensatory fiscal policy may be theoretically correct, but there is as yet no evidence that it can be translated into action.

A survey of the history of fiscal policy in the United States shows that only the first, third, and fourth sets of objectives have really been operative in the United States.

### THE PERIOD OF FISCAL ORTHODOXY

From 1789 until the passage of the 16th Amendment in 1913, fiscal policy at the federal, state, and local levels conformed fairly well with what we have called "fiscal orthodoxy." From 1913 on, the influence of the humanitarian welfare concept becomes increasingly evident. Since 1933 there has been a tendency to merge this concept with the Keynesian concept of budgeting for full employment. In many European countries the public finances until very recently have been almost completely dominated by this combination of objectives.

**The reasons for its long supremacy.** The long supremacy of

orthodox fiscal policy in the United States was due to a number of causes. The following by no means exhaust the list:

- (1) general acceptance of the political doctrine of federalism;
- (2) the unwillingness of the Supreme Court to interpret too liberally the enumerated powers conferred on the federal government;
- (3) the inability of the Congress to raise through the ordinary revenues at its disposal the sums needed to finance the large welfare programs urged upon it by those who believed that public spending and public taxing should be used to reduce personal income inequalities;
- (4) the inability of the individual states to use their much larger battery of revenue measures for equalization purposes because of the severity of interstate competition;
- (5) the existence of virtually free lands on the frontier which provided an escape for those who found the going tough in the more settled areas, and the spirit of rampant individualism which life on the frontier fostered; and
- (6) our relative immunity from the costly wars and the preparation for wars that made such heavy demands on so many other nations.

TABLE 42-1

FEDERAL EXPENDITURES FOR SELECTED YEARS, 1790-1910  
(in millions of dollars)

Year	Total	Military	Interest	Vet- erans	Indian Affairs	Postal Defi- cit	Civil & Misc.	Per Capita
1790	4.3	0.6	2.3	0.2	0.03	—	1.1	1.10
1810	8.2	3.9	2.8	0.08	0.2	—	1.1	1.14
1820	18.3	7.0	5.1	3.21	0.3	—	2.6	1.91
1860	63.1	27.9	3.2	1.10	2.9	9.9	18.1	2.00
1865	1297.6	1144.0	77.4	16.3	5.1	0.3	44.5	39.00*
1870	309.7	78.4	129.2	28.3	3.4	4.8	64.4	7.78
1900	520.7	190.7	40.2	140.9	10.2	7.2	131.7	6.85
1910	693.6	313.0	21.3	160.7	18.5	8.5	171.6	7.54

Source: *Historical Statistics of the United States. 1789-1945 Series P-99* (Bureau of the Census, 1949).

\* Estimated on assumption of a population of a little over 33 million. The other per capita figures are calculated from the population figures for the Continental United States as shown in Series B-2 (Bureau of the Census).

These forces combined to keep public spending quite modest in terms of our rapidly growing population and our mounting national income.

**The growth of public expenditures: Federal.** Table 42-1 shows the growth of federal expenditures by major functions for selected years.

Federal expenditures increased some 173 fold. During this same time, however, the population and the wealth of the country were also increasing. The periods of exceptionally rapid growth were periods of war and inflation.

The population increase of the period was about 25 fold. Hence the per capita increase was about 7 fold, much less, but still a substantial increase.

The corrections which must be made for changes in the value of the dollar are shown in Fig. 42-1.

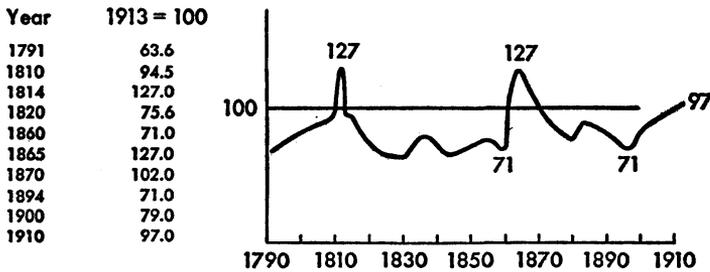


FIG. 42-1

The two big price increases of this period were due to wars. After each big increase, the expansion of production and the growing volume of transactions pressing on an inelastic money supply, forced a slow secular decline in the price level. The federal government had neither the means nor the disposition to try to stabilize the general price level.<sup>1</sup>

The increase in federal spending becomes still more nominal when it is related to the growth in the national income. Unfortunately our knowledge of the national income for most of the period is exceedingly scant. The National Industrial Conference Board's estimate of realized private production income is close enough to net national income for our purposes. Table 42-2 shows

<sup>1</sup> The hostility to the Second Bank of the United States during the 1830s and the Greenback and Free Silver movements after the Civil War were both reactions to these long price declines. (See Chapter 24.)

this figure for the years as near those in Table 42-1 as are available, the federal expenditures for the same years, and the ratio of federal expenditures to realized private production income.

TABLE 42-2  
FEDERAL SPENDING RELATED TO NATIONAL INCOME  
(millions of dollars)

Year	(1) Private Production Income	(2) Federal Expenditures	Ratio % (2) ÷ (1)
1799	688	9.7	1.5
1819	855	21.5	2.5
1859	4,098	69.1	1.7
1869	6,288	322.9	5.1
1900	14,550	520.9	3.5
1910	25,569	693.6	2.7

Source: *Historical Statistics of the United States, 1789-1945*, (Series A-154).

The burden of federal expenditures, expressed as a ratio of federal expenditures to realized private production income, showed surprisingly little change. The three-fold increase between 1859 and 1869 reflects the cost of the War Between the States. Thereafter the burden fell steadily. It was not difficult for the federal government to discharge its limited functions with the revenue measures at its disposal.

**Federal revenue.** Throughout this period customs duties were the mainstay of federal finance. Revenues from the sales of public lands were relatively important up to 1820; thereafter they continued to grow absolutely, but rapidly lost importance as a major source of revenue. During the War Between the States and for a short time thereafter the federal government derived some revenues from a short-lived income tax. An attempt to reintroduce such a tax during the second administration of Grover Cleveland was defeated by an adverse Supreme Court decision. Consequently the government had to depend increasingly on a few so-called excise taxes on articles of mass consumption like tobacco and intoxicating liquors. The receipts from these excises appear in the last column of Table 42-3.

**State and local expenditures.** We do not have detailed year-by-year figures for the states and their local units of government com-

TABLE 42-3

FEDERAL GOVERNMENT FINANCES: TREASURY RECEIPTS FOR SELECTED YEARS  
(in millions of dollars)

Year	Total	Customs	Income and Profits Taxes	Sale of Public Lands	Others
1790	4.4	4.4	—	—	—
1810	9.4	8.6	—	0.7	0.1
1820	17.9	15.0	—	1.6	1.3
1860	56.1	53.2	—	1.8	1.1
1865	333.7	84.9	61.0	1.0	186.8
1870	411.3	194.5	37.8	3.4	175.6
1900	567.2	233.2	—	2.8	331.2
1910	675.5	333.7	21.0	6.4	314.4

Source: *Historical Statistics of the United States, 1789-1945*, (Series P-89).

parable to those of the federal government. Table 42-4 shows state and local expenditures for 1890 and 1913 and their magnitude relative to federal expenditures.

TABLE 42-4

FEDERAL, STATE, AND LOCAL EXPENDITURES, 1890 AND 1913

Year	In Millions of Dollars				As Percent Total Expenditures		
	Federal	State	Local	Total	Federal	State	Local
1890	318.0	63	415	796	40	8	52
1913	725.0	229	936	1890	38	13	49

Source: *Historical Statistics of the United States, 1789-1945*, (Series P-99 and P-202).

As late as 1913 the people still looked primarily to local governments for such services as they felt could best be performed by compulsory collective action. The federal proportion declined by 2 percentage points. Local governments lost 3 percentage points. The state governments were becoming more important, but they were still overshadowed by both the federal government and the local units of government.

The principal functions performed by the states and their political subdivisions during this period are shown in Table 42-5.

TABLE 42-5

STATE AND LOCAL EXPENDITURES \* BY MAJOR FUNCTIONS, 1890 AND 1913

Functions	State		Local	
	1890 (Millions of Dollars)	1913 (Millions of Dollars)	1890 (Millions of Dollars)	1913 (Millions of Dollars)
General Control	21	40	61	171
Public Safety	3	25	40	156
Highways	n.a.	14	84	143
Sanitation & Health	n.a.	6	3	63
Hospitals, Public				
Welfare, Corrections	22	87	30	71
Schools	6	50	139	281
Miscellaneous	11	7	58	51
Totals	63	229	415	936

Source: *Historical Statistics of the United States, 1789-1945*, (Series P-202-211).

\* These figures exclude interest charges and capital outlays. They reflect the normal operating costs of state and local government.

The two main responsibilities of the state governments in both periods were the general control and the maintenance of state hospitals, correctional institutions, and certain welfare measures. The people relied largely on their local governments for public education, the building and maintenance of roads, fire protection, public sanitation, and the maintenance of law and order.

**The general-property tax.** Throughout this period the states and their local subdivisions raised most of their revenues through a locally administered tax on the property holdings of individuals and business firms. Local officials "assessed" (i.e., determined the market value of) the wealth of the taxpayer. The local lawmakers then levied a tax on this assessed wealth sufficient for their needs. Higher units of government then levied on the same "base."

The total tax paid by an individual was thus the sum of these local and state "rates." The primary assessment, however, was made by a local unit of government.

The property which the assessors tried to value consisted of real estate—land and the improvements permanently attached to the land—tangibles, and intangibles. A merchant's stock in trade was a tangible; mortgages, stocks, bonds, promissory notes, bank deposits, etc., were intangibles. Until quite late in the period here under consideration real estate, tangibles and intangibles were all

treated alike. In general, tangibles and real estate were taxed where located; intangibles at the residence of the owner.

*The breakdown of the tax.* For the first 75 years of our history this tax worked fairly well. But after the War Between the States, and beginning first in the industrial and commercial states of the eastern seaboard, the rise in the rate revealed serious shortcomings in the tax. These shortcomings were due primarily to changes in the composition of the assets of the taxpayers. Wages and salaries were not subject to the tax. Wealthy individuals and business firms tended to have more and more of their assets in the form of intangibles, stocks, bonds, mortgages, and promissory notes, etc. These intangibles represented claims on the incomes of individuals and firms, incomes derived in large part from properties that had already been taxed. The result was serious and unjustifiable double taxation. For example, in period 1 Jones owns a house worth \$10,000, free and clear of encumbrances. This \$10,000 is on the tax rolls, no more and no less. In period 2 Jones, confronted with a heavy hospital bill, borrows \$5,000 from Smith at 5 percent interest and gives him his promise to pay secured by a 10-year mortgage on the house. In period 2 Jones' house is still down on the rolls at \$10,000 and Smith is now liable for \$5,000 on his intangible, Jones' promissory note. Thus at the end of period 2 \$15,000 worth of property is spread on the rolls, \$5,000 of which is fictitious in the sense that the asset which gives value to the intangible, the note, is already on the rolls and assessed at its full market value. Corporate bonds and stocks similarly represent claims on the real and tangible property of corporations.

As situations like this multiplied and as the rate increased, intangibles progressively disappeared from the tax rolls. Efforts to enforce the law led individuals and business firms to locate in so-called "tax-dodgers' retreats" (communities) where the officials contented themselves with token declarations of intangibles. To protect their own tax yields, the states were forced to intervene to secure uniformity in the local assessment of property. The establishment of State Boards of Equalization or State Tax Commissions improved local assessment practices without, however, overcoming the inherent defects in the tax.

*An appraisal of the tax.* By the end of the period here under review competitive undervaluation had become the rule rather than the exception. Several unfortunate results followed. (1) First of all, the rate had to be increased to offset the decline in property valuations. As a result the rate on intangibles became out and out

confiscatory. A \$50-per-\$1,000 rate applied to a \$1,000 bond bearing 5 percent interest represented a 100 percent income tax. This situation speeded the disappearance of intangibles from the tax rolls. Officials were forced to close their eyes to flagrantly false declarations and honest citizens were forced to sign their names to statements which they knew to be false. (2) Fractional valuations made it much more difficult for a taxpayer to know whether he was being asked to pay relatively more or less than taxpayers of equal ability. (3) It placed enormous discretionary power in the hands of the political party which controlled the local assessment machinery. Let a man of wealth fight the political machine or refuse to make a generous contribution to its campaign funds and he might find that at the next assessment period the valuation of his assets for tax purposes had been marked up substantially. As long as the valuations were under the fair market values called for by the law, there was very little he could do about it. (4) Finally the burden of the general-property tax came to rest almost entirely on real estate and in a fashion that was conducive to bad land utilization<sup>2</sup> because of its effects on land in zones that are in transition between a less and a more intensive use.

In 1910 a distinguished student of public finance, Professor C. J. Bullock of Harvard University, had this to say of the general-property tax:

The United States has the most crude, inequitable and unsatisfactory system of local taxation—if, indeed, we can call system that which more resembles chaos—than can be found in any important country in the civilized world.<sup>3</sup>

Toward the end of this period the states increasingly turned the general-property tax over to the localities and developed new sources of revenue: special taxes on corporations, on business earnings, taxes on selected commodities (cigarettes, liquor, cigars, etc.) plus a variety of occupational fees and license charges. Many states exempted intangibles from the general-property tax and made them liable to a small annual state tax. Others continued to rely on the

<sup>2</sup> See John V. Van Sickle "Classification of Land for Taxation," *Quarterly Journal of Economics*, Nov. 1927, pp. 95-104. Also Alvin H. Hansen and Harvey S. Perloff, *State and Local Finance in the National Economy*, W. W. Norton & Co., New York: 1944, pp. 274-283.

<sup>3</sup> The article from which this quotation is taken was written in 1910. It is reproduced in Professor Bullock's *Selected Readings in Public Finance* (Cinn & Co.) 2nd ed., p. 289. A decade later a South Carolina study likened the administration of the tax in that state to "the gentle art of cracking safes. . . ."

tax but modified it by requiring that intangibles should be valued at a lower percent of their true market value than tangibles, and that these in turn should be valued at a lower percentage of their market values than real estate; or alternatively they maintained the principle of uniform valuation but provided for lower rates applicable to tangibles and intangibles. Thus modified, the tax is called a "classified property tax."

Despite these changes the tax is still the mainstay of most local governments and most of the objections raised above are still valid.

**Public debt.** The federal government started out with a relatively heavy debt as a result of taking over the debts that the states contracted during the War of Independence against England. This debt, plus that incurred during the War of 1812, was wiped out by 1836. The War Between the States, the Spanish-American War, and the costs of constructing the Panama Canal led to new debt, which was always reduced by succeeding administrations. Table 42-6 shows the significant changes in the debt that occurred during the first 120 years. (These changes in the debt are not examples of compensatory fiscal policy.)

TABLE 42-6  
THE FEDERAL DEBT, SELECTED YEARS, 1791-1910  
(in millions of dollars)

Year	Gross Debt	Per Capita Debt
1791	75.5	
1812	45.2	
1818	103.5	
1836	....	
1860	64.8	2.06
1866	2,755.8	75.42
1893	961.4	14.36
1910	1,146.9	12.41

Source: *Historical Statistics of the United States, 1789-1945*, (Series P-132, 133).

The story of the state and local debt is less placid, more varied, and more difficult to summarize. In contrast with the federal debt, which was almost entirely the heritage of war, state and local debt was incurred largely for internal improvements, public buildings, and, toward the end of the period, the construction or purchase by municipalities of local utilities. There were two mild epidemics of

debt repudiation—one before and one after the War Between the States. The earlier defaults were primarily the result of overambitious internal improvement projects by states that were eager to open their territories to settlement. The second was largely concentrated in the Old South where corrupt carpet-bag governments enriched themselves and further impoverished the defeated states by ill-considered or fraudulent public improvement programs. Foreign investors, particularly British investors, lost heavily. British financial circles never forgot that our federal government refused to honor their claims and at the same time denied to them the right to sue the defaulting states in our courts. This episode may have helped British public opinion reconcile itself to the much larger counter-repudiation of the British government's debt to our government which was incurred during World War I.

Between 1890 and 1913 the gross debt of the states and their localities rose from \$1,137 million to \$3,822 million, the latter figure being almost exactly twice the federal government public debt. In the next 40 years state and local debt was to increase some six-fold but was to sink to less than 10 percent of the federal debt.

**An over-all appraisal of fiscal orthodoxy.** We are now in a position to make an over-all appraisal of the effects of the fiscal policy of this long period. Federal expenditures were small measured against the national income and were largely due to wars and the preparation for possible wars. State expenditures absorbed even less of the national income. The big spending units were the local governments. Most of the spending served to create an environment highly favorable to business expansion. Federal revenues were derived almost entirely from customs duties and a few excise taxes on articles of mass consumption. The general-property tax was productive but inexcusably inequitable. By a process of accommodation impossible to defend on ethical grounds, it was administered in a way that served the needs of business and permitted the local tax assessors to get from property owners a contribution that satisfied the prevailing sense of equity.

The revenue system as a whole was highly regressive. Low-income groups paid relatively more than the well-to-do. From the static point of view the system was indefensible. From a dynamic point of view, however, the system was highly favorable to material progress and a rising level of living. Capital, the factor of production which was relatively scarce, was given preferred treatment. As a result, the rate of capital formation exceeded the very high rate of population increase. The inflow of foreign capital was sub-

stantial. It received the same treatment as domestic capital, and no restrictions were placed on the repatriation of either the earnings or the principal. Despite recurrent setbacks the level of living rose almost without interruption from decade to decade.

Many factors contributed to this result—the vastness of the American domestic market and the abundance of natural resources were certainly of great importance—but overshadowing all else was the fact that private property and private enterprise were respected, and, to an unprecedented extent, material incentives were given free play.

### FISCAL POLICY 1910 TO DATE

A new fiscal era began with the passage of the 16th Amendment authorizing the federal government to impose a direct income tax. Few realized at the time how powerful the new instrument was, both as a revenue raiser and a modifier of the personal distribution of incomes. The degree of progression in the first act was indeed very moderate—7 percent was the maximum rate applicable on a few large incomes.

How the tax might have developed had we not become involved in the first World War can never be known. We did enter the war; federal expenditures soared and public opinion demanded that the federal tax system should be revised to make it more productive and to take the profits out of war. By 1919 the 7 percent top rate had been raised to 77 percent, applicable on a taxable income in excess of \$1,000,000.

**The growth of public expenditures.** Between 1913 and 1952 federal, state and local expenditures increased more than 50 fold. As in the preceding period allowance must be made for changes in the purchasing power of the dollar, for population growth, and for growth of the national income. The consumers' price index of the Bureau of Labor Statistics rose from 70.7 to 189.8, a 2.7-fold increase. The population of the Continental United States increased by almost 60 percent, from 97 to 157 millions. The increase in "realized private production income," which was used to measure the growth of the national income during the preceding period, more than doubled between 1913 and 1929. From 1929 on we have the more accurate figure of the gross national product and its components. The gross national product rose from \$103.8 billion in 1929 to \$346.3 billion in 1952, a more than 3-fold increase. At the end of the period, total federal, state and local spending in the amount

of \$101.5 billion amounted to almost 30 percent of the gross national product and more than 34 percent of the national income.

Table 42-7 shows this growth in public expenditures and also the shift in the relative importance of the expenditures of the three

TABLE 42-7  
FEDERAL, STATE AND LOCAL EXPENDITURES, 1913 AND 1952

Year	In Millions of Dollars				As Percent Total Expenditures		
	Federal	State	Local	Total	Federal	State	Local
1913	725.0	229.0	936.0	1,890	38	13	49
1952	70.6	10.8	20.1	101.5	69	12	19

Source: *Summary of Governmental Finances in 1952* (U.S. Dept. of Commerce Release of Nov. 2, 1953).

levels of government. Federal expenditures had increased almost 100-fold, state expenditures approximately 50-fold, and local expenditures a trifle over 20-fold.

*Federal expenditures.* The disproportionate growth of federal

TABLE 42-8  
FEDERAL EXPENDITURES BY MAJOR FUNCTIONS, SELECTED YEARS

Year Average of year ending June 30	Expenditures in millions of dollars						Per Capita (to nearest dollar)
	Total	Military	Interest	Veterans	Indians	Civil & Misc.	
1911-1915	720	333	23	165	21	179	7
1916-1920	8,065	4,095	375	187	31	3,377	76
1926-1930	3,183	745	738	224	38	1,439	26
1936-1940	8,267	1,348	905	409	37	5,569	64
1945	98,703	80,537	3,617	772	30	13,747	700
1948	33,791	11,983	5,211	2,080	41	14,476	230
1951	44,633	20,822	5,613	*	*	18,199	308
1953 †	70,568	39,990	5,853	2,428	*	22,297	450

Source: *Statistical Abstract of the United States, 1952* (Table No. 357, p. 306).

\* Included in civil and miscellaneous.

† *Summary of Governmental Finances in 1952* (U.S. Dept. of Commerce Release of Nov. 2, 1953).

expenditures was due primarily to war and the preparation for war. Table 42-8, showing the growth of federal expenditures by major functions for selected years, brings out this fact very clearly. In the last year of World War II \$80.5 billion in a total budget of \$98.7 billion represented military expenditures. In 1952, \$48.3 billion or 68 percent of the total budget was devoted to defense, interest on the national debt (almost entirely a heritage of past wars), and payments to veterans. But within the "civilian" sector of the budget, involving expenditures of \$22.3 billion, are to be found expenditures which were virtually unknown at the beginning of this period—direct money payments to special groups whose income was regarded as socially insufficient. Table 42-9 reveals the magnitude of these disbursements.

TABLE 42-9  
PUBLIC EXPENDITURES FOR ASSISTANCE AND SUBSIDIES BY  
MAJOR PROGRAMS, 1952  
(in millions)

Programs	All Gov- ernments	Federal	State and Local
<i>Total</i> .....	<u>\$8,387</u>	<u>\$5,916</u>	<u>\$2,471</u>
International assistance .....	1,224	1,224	
Education (largely veterans' educational benefits) .....	1,197	1,172	25
Public welfare (largely public assistance) .....	2,276	11	2,265
Natural resources (largely agricultural benefits) .....	407	406	2
Veterans pensions, bonuses and other noneducational benefits.	2,410	2,282	128
All other .....	873	821	51

Source: *Summary of Governmental Finances in 1952* (U.S. Dept. of Commerce Release of Nov. 2, 1953, p. 10).

These disbursements indicate how important government has become as an agency for redistributing the national income.

*State and local expenditures.* In 1952 the expenditures of the states and their political subdivisions amounted to \$31 billion, approximately the same as the nonmilitary expenditures of the federal government. Two-thirds of the spending was by local units of government, one-third by the states. Table 42-10 shows the major

TABLE 42-10  
STATE AND LOCAL EXPENDITURES BY MAJOR FUNCTIONS, 1952  
(in millions)

Functions	Total	State	Local
<i>Direct expenditures, total</i> .....	\$30,884	\$10,790	\$20,094
Education .....	8,318	1,494	6,824
Highways .....	4,650	2,556	2,094
Police and fire protection .....	1,525	106	1,419
Public welfare .....	2,788	1,410	1,378
Health, hospitals, sanitation, housing.	3,946	1,136	2,810
Public business enterprises .....	3,087	723	2,364
Insurance-Trust expenses .....	1,698	1,413	285
General control .....	1,193	361	832
Interest on general debt .....	552	144	408
Other .....	3,127	1,447	1,680

Source: *Summary of Governmental Finances in 1952* (U.S. Dept. of Commerce Release of Nov. 2, 1953, Table 5).

purposes for which the two local levels of government spent the taxpayers' money.

It is apparent from Table 42-10 that the big expenditures of the states are for highways, education, public welfare and payments into employee retirement systems and federal unemployment compensation trust funds. The payroll deductions under the federal unemployment compensation program meet the last item. The \$723 million opposite the public business enterprises item represents the cost of running liquor stores in states which have converted this business into a fiscal monopoly. In general these states make a profit from this business which appears on the revenue side of their budgets.

For the localities the big items of expense are education, highways, police and fire protection, health, hospitals, sanitation, housing and public welfare. Against their expenditures of \$2,364 million for publicly conducted businesses they secure local revenues from the sale of water, gas, electricity and local transportation.

**The public debt.** During this period the gross federal debt rose more than 260-fold, from \$1,194 million in 1912 to \$269,422 million in 1946. After a small fall in the period between the end of the war in Japan and the outbreak of hostilities in Korea, it again began to rise and stood at \$259 billion at the end of fiscal 1952. Furthermore

the composition and the holding of the debt changed. Today it is predominantly represented by debt of very early maturities and a substantial portion is held by our commercial banks and by institutional holders (insurance companies, business firms, etc.) who treat it as near money. This new method of borrowing to finance the most costly war in our history with a 2 percent interest rate was at the cost of a serious price inflation. Another point to note in this connection is the idea that a domestic debt is not a burden and that debt reduction should only be undertaken when inflation threatens. This new view foreshadows the existence of a heavy debt for many years to come and a delicate problem of debt management into which it is not necessary to go further at this point in view of what was said in Chapters 23 and 24.

The rise in state and local debt has been much less spectacular. By 1941 the debt had risen to \$20.2 billion from \$4.5 billion in 1912, after which it fell to just under \$16 billion in 1946 as the federal government preempted the money market and the states and their localities put off their normal construction programs to release resources for the war effort. Thereafter the growth was rapid. At the end of 1952 it stood at \$30 billion, with cities and school districts responsible for approximately one-half the total.<sup>4</sup>

**Intergovernmental expenditures.** Not only have public expenditures grown relative to population and to the national income but there has been a marked shift in the responsibility for raising the vast sums which now pass through the public sector of the economy. The very magnitude of the task made it inevitable that the federal and state governments should assume more of the responsibility. Small taxing areas like counties, towns, and cities cannot tax mobile wealth and income very heavily without driving them out of their jurisdictions. Heavy taxes must be reasonably uniform in their impact over wide areas. The federal government and the state governments possess a comparative advantage as revenue raisers, while local governments still possess a comparative advantage as administrators of many public functions. This fact has given rise to a system of revenue sharing which has permitted the states and still more their local political subdivisions to administer functions which they are no longer able to finance by levies on the private resources (income and properties) located within their jurisdictions. In 1952 more than \$8 billion were transferred from

<sup>4</sup> The figures for federal, state and local debt are from *Summary of Governmental Finances* (U.S. Dept. of Commerce Release of Nov. 2, 1953, Table 8).

higher to lower units of government to support activities regarded as affected with a national or a state-wide interest.

Two primary methods<sup>5</sup> are used to effect this transfer—grants-in-aid and tax sharing. The superiority of the grant-in-aid method, from the point of view of the receiving government, is its certainty. It is protected against the inevitable fluctuations in the yield of the supporting revenue measures.

Both methods of revenue sharing may be neutral in their geographical incidence, or they may be deliberately designed to transfer funds from wealthier communities to poorer communities. The devices are neutral if they return to the localities roughly the same amounts as the higher units draw from them through their taxes. At both the federal and the states level the tendency has been to use grants and shared taxes for equalization purposes. Social justice, it is held, requires that individuals pay in accordance with their abilities and that the government support certain basic public services on the basis of local need.

This is not the place to describe in any detail state revenue-sharing devices. The situation varies from state to state. At the present time the State of Indiana, for example, turns back approximately 40 cents out of every dollar it spends to its local political subdivisions, primarily for the support of education, public welfare, and the construction and maintenance of roads and highways.

TABLE 42-11  
FEDERAL AIDS TO LOCAL GOVERNMENTS, 1952  
(in millions of dollars)

Item	To States	Directly to Local govts.	Total
<i>Total</i> .....	<u>2,125</u>	<u>130</u>	<u>2,255</u>
Grants-in-aid .....	2,092	120	2,212
Shared revenue .....	31	4	35
In-lieu payments .....	2	6	8

Source: *Summary of Governmental Finances in 1952* (U.S. Dept. of Commerce Release of Nov. 2, 1953, p. 12).

<sup>5</sup> Payments "in lieu of taxes" represents a form of revenue sharing. The Federal Government, for example, makes such payments to the localities in the Tennessee Valley in recognition of the fact that they may not tax the earnings or the installations of the TVA and that their own tax bases were reduced by the flooding of the rich bottom lands in their jurisdictions.

During the period here under review, federal grants-in-aid grew from almost nothing up to a level at which they represent an important element in the finances of the states and their localities. The Table 42-11 and Fig. 42-2 reveal the situation in 1952.

The bar charts (Fig. 42-2) show both the magnitude of federal and state intergovernmental payments in 1952 and the major purposes for which these payments were made.

*Federal grants-in-aid.* The grant-in-aid is a device for reconciling the political principle of federalism with the popular demand for the use of the taxing and spending power to reduce personal and hence geographical income inequalities. The reconciliation is an uneasy one. The power to tax is the power to control; unless the grantor government exercises this control and imposes conditions, the sectional pressures for larger and larger grants are likely to get out of hand.

Yet the more detailed the controls, the more likely is it that the people in the different states will be forced to spend their own tax moneys in ways that do not correspond with their own best judgment as to the most effective use of public funds.

*Regional reactions to equalizing federal aid.* Public opinion in the wealthier states is becoming increasingly hostile to the geographical transfers of capital involved in the federal aid programs.<sup>6</sup> Instead

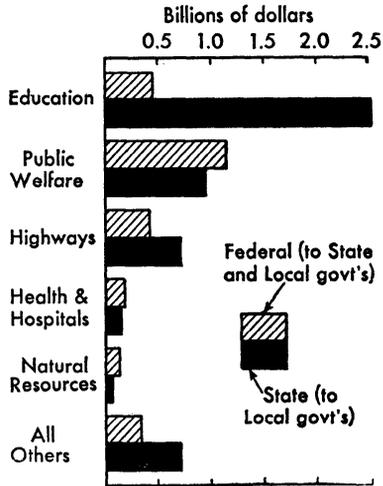


FIG. 42-2

<sup>6</sup> A picturesque expression of this reaction is to be found in the much-quoted House Concurrent Resolution No. 2 of the 85th General Assembly of the State of Indiana which was passed in 1947. It reads as follows:

Indiana needs no guardian and intends to have none. We Hoosiers—like the people of our sister states—were fooled for quite a spell with the magician's trick that a dollar taxed out of our pockets and sent to Washington, will be bigger when it comes back to us. We have taken a good look at said dollar. We find that it lost weight in its journey to Washington and back. The political brokerage of the bureaucrats has been deducted. We have decided that there is no such thing as "federal" aid. We know that there is no wealth to tax that is not already within the boundaries of the 48 states.

*So we propose henceforward to tax ourselves and take care of ourselves. We are fed up with subsidies, doles and paternalism. We are no one's stepchild. We have grown up. We serve notice that we will resist Washington, D. C., adopting us.*

*Be it resolved by The House of Representatives of The General Assembly of the State of Indiana, The Senate concurring: That we respectfully petition and urge*

of a pressure for reduction in federal aid, however, which would seem to be the natural reaction, the tendency appears to be to insist that the attendant power to control shall be used to impose on the poorer states labor and social standards which will reduce their ability to attract private risk-capital. Thus a prominent Harvard economist who has become alarmed at the inability of Massachusetts and Rhode Island to maintain their relative income positions among the states argues that the elected officials of these two states should attempt to get a larger share of the federal dollars and that the federal government should be more actively concerned with the establishment of "uniform standards of hours, working conditions, social security, minimum wages, and in so far as possible, equitable (state and local) taxation among business, labor and agriculture."<sup>7</sup> Elsewhere he states flatly that the Massachusetts system of taxation, which places the burden primarily on property and business and spares the consumer, should be regarded as the model to be followed by the other states, particularly those in the South which rely heavily on sales and other taxes which spare business and burden consumers.<sup>8</sup>

In view of the relative scarcity of capital which still prevails in the Old South, the policy of taxing it lightly seems quite logical from the point of view of the people of the region. If the rate of development of the region does impose difficult problems of adjustment on older industrial regions, it would seem more consistent with the operating requirements of a private enterprise system to advocate the abandonment of the equalizing principle in the federal grant-in-aid programs and a reduction in the volume of federal aid. The industrial development of the South and the Southwest has now reached a point where the equalizing principle has lost whatever justification it may have possessed a generation ago, provided the people there are not denied the opportunity to attract extra-

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Indiana's Congressmen and Senators to vote to fetch our county court house and city halls back from Pennsylvania Avenue. We want government to come home. *Resolved, further*, that we call upon the legislatures of our *sister states* and on *good citizens everywhere* who believe in the basic principles of Lincoln and Jefferson to join with us, and we with them to restore the American Republic and our 48 states to the foundations built by our fathers.

In support of this thesis the Indiana State Chamber of Commerce publishes, from time to time, estimates of the net drain of wealth from the state as a result of federal grants-in-aid. In November 1953, it estimated that Indiana's share of the cost of federal aid for the fiscal year 1951-52 amounted to \$63.5 million and that it received only \$31.6 million—a net drain of \$31.9 million.

<sup>7</sup> Seymour E. Harris, *The Economics of New England: A Case Study of an Older Region*, Harvard University Press, Cambridge: 1952 p. 304.

<sup>8</sup> *Ibid.*, p. 22.

regional venture capital which competitive market forces automatically provide.

**Changes in state and local revenues.** The changes in the methods of raising revenues at the state and local levels can be disposed of very briefly. The localities are still primarily dependent on the general property tax. In most states it has become a tax on real estate and tangibles. It is a reliable source of income, but it is still open to most of the objections cited earlier. The balance of the locally raised revenues come from business license charges, occupational taxes, taxes on gross receipts, franchise taxes on utilities, license fees on meters and telephone sales, poll and gasoline taxes, motor vehicle licenses, inspection and highway privilege fees, special assessments, parking meter charges, and the earnings of publicly owned utilities. More and more of their total disbursements come from their state governments through grants-in-aid or shares in state-administered taxes.

The state governments have largely abandoned the general property tax to their political subdivisions. They now rely on taxes on intangibles, moderately progressive personal income taxes, corporate income taxes, flat gross income taxes, selective and general sales taxes, motor vehicle taxes, registration and driver license fees, gasoline taxes, inheritance taxes, and ear-marked social security taxes. By and large these levies are regressive in their incidence, but it should be borne in mind that many of the expenditures are progressive in their incidence, in the sense that they benefit disproportionately persons of low and moderate incomes.

**Changes in federal revenues.** The dramatic change in federal taxation in this period has been the shift from predominantly regressive to predominantly progressive taxes. In 1952 ordinary internal revenue collections were derived from the following sources and in the following proportions:

PERCENT DISTRIBUTION OF FEDERAL GENERAL REVENUE BY SOURCES, 1952

Taxes .....	89.7
Individual income .....	41.9
Corporation income .....	31.9
Sales, gross receipts, customs .....	14.0
Death and gift .....	1.2
Licenses, permits, and other .....	0.7
Charges and miscellaneous .....	10.3

Source: *Summary of Governmental Finances in 1952* (U.S. Dept. of Commerce Release of November 2, 1952, Table 3).

At the beginning of the period federal revenues were derived almost entirely from taxes on sales, gross receipts and customs. Today these indirect and regressive taxes account for less than one-seventh of the government's general revenues. Taxes on individual and corporate income and on bequests (death duties and gift taxes) provide three-quarters of the general revenues. If, as many economists hold, the tax on corporate income cannot be shifted onto consumers through higher prices or onto employees through lower wages, then it rests on dividends. In that event, it is apparent that the federal revenue system has become a powerful instrument for redistributing the national income in favor of the lower income groups in society. The increase in federal welfare expenditures reinforces this egalitarian trend.

In the remainder of this chapter we propose to describe in some detail these three taxes on personal incomes, on corporate incomes, and on bequests and consider their effects upon the performance of a predominantly private enterprise economy.

### THE FEDERAL PERSONAL INCOME TAX

The direct taxation of personal incomes started very modestly with a one percent normal tax and a progressive surtax which rose from one percent on an income of \$20,000 and less than \$50,000 to a maximum of 6 percent on the fraction of a person's income in excess of \$500,000. Later the two rates were merged into a single schedule.

The definition of net taxable income has gone through many changes. For our purposes it suffices to note that from the beginning it has been defined very roughly as gross income (including capital gains, i.e., profits realized from the sale of assets like real estate, stocks, and bonds) less (a) expenses incurred in earning the income (including statutory allowances for amortization, depreciation, and depletion of durable assets), (b) tax-exempt income (originally the salaries of all federal, state and local officeholders and the interest on all public bonds, now only the interest on state and local bonds), (c) a personal exemption and an exemption for dependents. These last two exemptions were dictated by administrative considerations (the very high cost of collecting a very small tax from a very large number of persons with low incomes), political expediency, and the prevailing concept of social justice, which held that there was a minimum income which could not be taxed without forcing individuals into the dependency class. An addi-

tional and valid consideration was the fact that low-income groups were already relatively overburdened as a result of the regressivity of the total federal, state, and local tax system.

*Evolution of the personal income tax.* With our entry into World War I the personal exemptions were reduced and the progression was sharply increased, reaching a high of 77 percent in 1918. During the 1920s the personal exemptions were increased and the progression stopped with a maximum marginal rate of 20 percent. During the 1930s the progression was again made very steep. The purpose was not so much to raise revenue as to effect a redistribution of personal incomes. It was during this period that the Keynesian reasoning regarding the adverse employment effects of large income inequalities came to the support of the more traditional "social justice" reasoning. World War II, like the preceding war, created an irresistible and proper demand for a further advance in the rates. Rates were reduced after the termination of hostilities, but much less than after the first war. The Korean war led to a further sharpening of the progression. The maximum rate at the present writing is 92 percent applicable on a taxable income in excess of \$200,000 for a single person or \$300,000 for the head of a household.

Table 42-12 shows the variation in average rate for selected income groups for selected years.

TABLE 42-12

AVERAGE RATES FOR SELECTED INCOME GROUPS FOR SELECTED YEARS

Income Year	Married Person with 2 Dependents with Net Income				
	\$3,000	\$10,000	\$25,000	\$50,000	\$100,000
1914	—	0.6	1.0	2.5	5.0
1918	1.2	7.8	14.7	35.0	64.6
1929	—	0.4	3.4	14.8	22.8
1940	—	4.4	14.3	42.9	65.9
1944-5	9.2	22.5	38.8	68.6	88.6
1951	4.1	16.2	25.6	52.6	80.7

Source: *Statistical Abstract of the United States, 1952*, Table No. 367.

The average rate understates the impact of the tax on the decisions of income taxpayers. What counts is the marginal rate, i.e., the rate payable on an added dollar earned. Thus under the rates

applicable to incomes earned in 1952 the average and marginal rate for single persons with selected taxable incomes are shown below:

Taxable Income	Average Rate	Marginal Rate
\$ 9,000	28.6	38
13,000	32.9	48
17,000	37.4	56
27,000	47.0	67
51,000	58.4	77
101,000	70.4	90

Rates such as these undoubtedly change men's attitudes toward work and leisure, risk-taking and security, not to mention their ability to save and assume risks. The impact is particularly marked on those whose services are most important as the organizers, directors of production, and the providers of the savings needed for the financing of new business ventures.

### THE CORPORATION INCOME TAX

The corporation income tax has been increased almost as much as the personal income tax, and the principle of progression has been introduced to a modest degree. The original flat one percent tax has now become a flat 30 percent tax on net earnings and in addition there is a 22 percent surtax on all income in excess of \$25,000. (During both world wars and the Korean war, corporations were also liable to an excess profits tax on earnings in excess of those of a base period or in excess of a stated rate of return.)

Not only has the corporation tax been sharply increased, but since 1936, the dividends are fully taxable again when distributed to individuals at the rates determined by their total taxable incomes. The result is a very heavy and discriminatory treatment of income derived from investment *in new corporate ventures*. For persons of wealth the purchase of new issues of tax-exempt state and local bonds bearing 3 to 4 percent interest is more remunerative than the purchase of a new issue of stock in a corporation which can earn 4 to 5 times as much before taxes.

The situation is mitigated to some extent by the fact that capital gains on assets held more than six months can be segregated by the taxpayer and declared separately. He then has the option of paying a maximum tax of 25 percent, or including them in his normal income and paying the rate determined by his top bracket income.

Since the marginal rate of the personal income tax exceeds 25 percent on very modest incomes, most investors elect to take advantage of the 25 percent capital gains rate, and their investments are largely determined by their judgments regarding the prospects of realizing income via the capital gains route.

### TAXES ON BEQUESTS

The popular rejection of large personal income inequalities also finds its reflection in the increasingly heavy charge which all modern governments levy on the right of bequest. These charges may be placed on the value of the estate of a decedent or upon the value of the shares going to the individual inheritors. The first type of tax is called an estate tax; the second an inheritance tax. The term *death duties* is used to cover the two. The gift tax is a levy on gratuitous transfers of property *inter vivos* (between live persons). The purpose is to prevent individuals from avoiding the death duties by distributing their estates during their lifetimes.

**Inheritance taxes.** The individual states have long levied inheritance taxes. The rates are usually progressive with respect to the size of the distributed shares and the remoteness of the relationship to the decedent. The rates have had to be kept relatively moderate to prevent wealthy individuals from avoiding the tax by taking out residence in a state with a low set of rates. Even so, differences in the severity of the tax did cause some shifting of residence for purposes of minimizing the burden until the introduction of the credit off-set by the federal government in connection with its taxation of estates. The yield of the state inheritance taxes in recent years comes to about 3 percent of their total revenue collections.

**The federal estate tax.** From 1862 through 1871 and again for a few years around the turn of the century, the federal government imposed very moderate taxes on inheritances and legacies. Since 1916 it has levied an estate tax. The tax was introduced as a war measure with sharply progressive rates. Thereafter the sequence of events was similar to that for the income tax—reductions during the 1920s and large increases during the 1930s and the war years of the 1940s. The tax now ranges from 3 percent of an estate in excess of \$60,000 if the decedent is unmarried to 97 percent on an estate in excess of \$10,000,000. In addition there is a cumulative gift tax designed to prevent a person from avoiding the tax entirely by disposing of his wealth during his lifetime.

## SOME CONSEQUENCES OF HIGHLY PROGRESSIVE TAXATION

The triumph of the ability-to-pay principle has had a number of social and economic consequences that deserve thoughtful consideration.

1. **It promotes public extravagance.** The first, and in many ways the most serious, effect of the extreme application of the ability-to-pay principle is its impact on popular attitudes toward public spending. The majority have come to feel that they do not pay and that they should not be expected to pay for federal services. This makes every proposal for additional federal expenditures very attractive to voters, and every proposal for federal economies very unattractive to the political representatives of the voters. The typical voter is becoming more and more like

. . . . the old man in the hurse  
Who said, "this isn't so worse,  
The ride is immense, likewise the expense,  
But it doesn't come out of my purse."

2. **The tax system favors existing corporations.** The ability-to-pay principle applies to individuals. The business firm, as such, has no ability to pay in the sense in which the term is used. It is simply an agency for producing and selling goods and services and distributing the firm's earnings among those who supply the productive resources. This fact is recognized in the taxation of partnerships and cooperatives. If it were still recognized in the case of corporations, the effects of progressive federal taxes would not be as adverse to healthy business expansion as they are at present.

Instead we have the double taxation of distributed earnings to which reference has already been made. This is not only discriminatory in principle, but, no less serious, it places the managements of existing and well-established companies in a preferred situation in the competition for the savings of the public. These managements have access to virtually costless capital which they get through the plowing back of surpluses. Their decisions do not have to meet the test of the money market. From the point of view of many common stockholders, particularly those already enjoying substantial taxable incomes, a relatively unproductive reinvestment of their undistributed claims promises to yield a larger return, after taxes, than they could hope to secure from an equivalent and much more productive investment elsewhere. It is to their advantage to

allow the managements of these corporations to do the investing for them. As long as the present double taxation of corporate income continues, this is probably the price we must pay for business expansion. Relatively little new equity capital is entering the corporate field.<sup>9</sup>

4. **The tax system discriminates against small business.** This bottling up of so large a share of the nation's annual savings within existing corporations makes unnecessarily difficult the establishment and growth of small business. The organized capital market is not open to small business. The launchers of such enterprises must be able to borrow from friends or from local banks, but before they can borrow they must be able to show a substantial equity interest. Such an interest comes into existence only as a result of saving, and saving is much more difficult than formerly because of the rapid progression of the personal income tax. The business birth rate is thus cut down. And simultaneously the death rate of new businesses is increased because of the heavy taxes imposed on the earnings of such enterprises. It would be difficult to devise a tax system more unfavorable to the entry of new firms, with new blood and new ideas, into the business population than the one under which we are now operating.

5. **The tax system discriminates against the small saver.** An individual with a marginal personal income tax liability of 25 percent has to pay a tax of more than double that amount on his undistributed share of the income from any corporate investments he may have. He can avoid this heavy tax by investing in real estate or in unincorporated businesses, but both of these outlets involve risks which he is ill equipped to evaluate.

If, instead, he buys tax-exempt state and local bonds, he is forced to compete with the well-to-do who benefit even more than he does from the exemption privilege. As a result his net return on this type of investment is driven lower than would otherwise be the case.

6. **The tax system favors government ownership.** The exemption of state and local bonds from federal taxation gives the states and their localities a preferred position in the competition for the sav-

<sup>9</sup> In 1949, for example, corporations secured \$6 through undistributed earnings for every dollar secured through the sale of common stock—\$7.8 billion as against \$1.3 billion. Three and one-half times as much new capital was secured through borrowing—\$4.6 billion. Altogether \$18.6 billion of the total of \$24.5 billion invested by corporations in that year came from internal sources, with depreciation reserves providing the second largest contribution. Clay J. Andrews, "Trends in Supply of Equity Capital," in the *Harvard Business Review*, September, 1950, p. 81.

ings of the public. This fact may make a publicly conducted enterprise economical from the point of view of the citizens of a state because of the saving in the cost of capital. Thus the governor of one of the states who has been most outspoken in his views regarding the relative inefficiency of publicly conducted business enterprises urges that his state undertake a public power project. In his testimony before a Senate Committee he admitted quite frankly that it was the tax situation which led him to urge public ownership:

If all the government-developed waterpower in America paid federal, state and local taxes, I would not have a leg to stand on. But the government waterpower in America pays no federal taxes, no state taxes and no local taxes. . . . Why should my people be singled out of the forty-eight states to pay the only taxes there are on this kind of waterpower development?<sup>10</sup>

This review of federal fiscal policy indicates how complete has been the triumph of the egalitarian—welfare—full-employment point of view. The equalizing effect has been all the greater because much more of the spending by all levels of government at present benefits low-income groups than was the case 15 years ago. Personal income inequalities are still considerable, but they have been reduced appreciably. The equalizing tendency has been particularly pronounced since 1941. Thus between that date and 1948 the percent increase in average family income was 25 percent. If families (including single persons) are arranged in 5 equal groups according to income, we find that the rate of improvement has varied inversely to size of income. The average incomes (\$893 in 1948) of the poorest one-fifth had increased by 51 percent; that of the next fifth by 44 percent; that of the third fifth by 31 percent. The average income of the next to the highest group—those with an average income of \$4711 in 1948 had increased by 23 percent, 2 percentage points less than the average increase. The percentage increase for the highest group (average 1948 income, \$9911) was 18 percent—7 percentage points below the national average.<sup>11</sup>

Only time will tell whether sufficient individual incentives have been left to enable the private sector to expand at the rate that public opinion has come to expect. If not, popular faith in the private enterprise system may be so weakened as to raise justifiable

<sup>10</sup> Testimony of Governor Thomas E. Dewey before the Senate Public Works Committee as quoted in *The Freeman*, November 16, 1953, p. 121.

<sup>11</sup> *Statistical Abstract of the United States*, 1952, Table No. 313, p. 261.

doubts regarding its ability to promote the general welfare. Professor Schumpeter's prediction<sup>12</sup> that socialism is the heir apparent of capitalism appears to have been based on his conviction that a democratic people cannot resist the temptation to equalize personal incomes to a degree that is incompatible with the minimum operating requirements of a vigorous private enterprise system. This led him to examine the possibilities of a democratic form of socialism. We shall undertake a similar inquiry in the next three chapters.

### Questions:

1. Describe the principal methods of raising revenues used by (a) the federal, (b) the state and (c) the local governments in 1860, 1913, and 1952. Indicate in each case whether the distribution of the burden was regressive, proportional or progressive.
2. Identify the principal reasons for the long period of "fiscal orthodoxy" in American public finance.
3. Discuss critically the compatibility of federal fiscal policy with the operating requirements of the private enterprise system in 1860, 1913, and 1952.
4. Compare the quantitative growth of federal expenditures over the period 1789-1913 with that of the 40-year period since 1913. What developments of the first period can be cited as evidence that the growth during that period was in a sense "nominal"? Can the same thing be said of the growth of the next period?
5. Leaving aside military and related expenditures, identify the principal factors responsible for the growth of federal, state and local expenditures during the last 40 years.
6. Rank the federal, state and local governments from high to low on the basis of their responsibility for total public expenditures at each of the following dates: 1890, 1913, and 1952.
7. Distinguish between grants-in-aid and tax-sharing and identify the forces that appear to have been responsible (a) for the development of these two types of intergovernmental expenditures; and (b) for the tendency for them to become increasingly equalizing in character.
8. "Recent developments in federal aid for social security have made it difficult for the federal government to control its own expenditures." Argue for or against the validity of this statement.

<sup>12</sup> In *Capitalism, Socialism and Democracy*, Harper & Bros., New York: 1942.

9. Explain how the federal government created a market for its bonds during the War Between the States and World War II. Indicate the relevance of these methods to the behavior of prices during the periods of peace following each of these wars. (See Chapter 25.)
10. Has there ever been any public debt repudiation in the United States?
11. Distinguish between a classified-property tax and the general property tax and summarize the defects of the latter tax. What is its present status?

PART ELEVEN

*Alternatives to Capitalism*



## *Communism*

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OUR concern up to this point has been with the functioning of an ideal capitalistic system and with its use as a yardstick for determining whether interventions of various sorts are or are not in conformity with its operating requirements. The desirability of maintaining this type of economy was more or less assumed. In this and the two following chapters, this assumption will be tested. Perhaps a system which provides for more conscious and planned direction of individual action may be superior.

The word “superior” implies a value judgment. Our inquiry must now go beyond the narrow confines of technical economics. Issues transcending the production of material goods and services are involved. One of our value judgments was set forth in the first chapter. We said there that the economist as a “scientist” is justified in assuming that freedom of inquiry is a paramount value and that any economic system which cannot respect this value is to be regarded as inferior to one that can. Given this basic assumption, it follows that freedom of speech, of the press, and of assembly are equally important, since without them freedom of inquiry would be meaningless. In brief, we regard an economic system that can permit these democratic processes to work as better than one that must destroy them in order to realize its goals.

The capacity to produce a large and expanding output of goods and services is a worth-while characteristic of any economic system, but once a system has demonstrated its capacity to provide for group survival, this material test ceases to hold first place in our tests of the relative merits of systems. Beyond this point the intangible values that make it possible for the individual to realize

his potentialities and to develop the spiritual side of his being take precedence.

Our evaluation of the alternatives to private capitalism in this and the next two chapters will be based on this point of view.

Nonetheless, our appraisal of alternative systems will largely be concerned with the mundane problems of production—with the allocation of resources, with the freedoms of consumer choice and job choice, with employment stability and technological progress, and, most important of all, with the prospects of the peaceful co-existence of national economies based on different operating principles—because of our conviction that the protection of the truly fundamental values depends to a large extent on the way these problems are resolved.

It would be interesting to examine past economic systems—such as feudalism and mercantilism—and those of contemporary primitive peoples. Our concern here, however, is with the choices confronting societies which, for better or worse, were drawn into the nexus of 19th century capitalism and which cannot retreat from the resulting interdependence because of the accompanying growth of population. Any acceptable alternative to capitalism must be able to effect a peaceful integration with other national economies organized on an advanced basis.

We shall also disregard Italian Fascism and German National Socialism because of their frank and contemptuous rejection of the democratic processes and their glorification of war. Their objective was subjugation, not integration. These were warfare, not welfare systems.

Given our criteria, the only real alternatives to capitalism are communism and socialism. Both of these systems, it is claimed, will protect the great intangible values of a free society and will satisfy the material tests of a good economic system, far better than any private enterprise system.

### AN OVER-ALL COMPARISON

**Basic similarities.** Theory, experience, and common sense tell us that a complex economy with an elaborate division of labor cannot be made to operate without the use of money. All present-day socialistic systems use money both as a control device and as a medium of exchange. Pure communism would have to do the same.<sup>1</sup>

<sup>1</sup> See Trygve J. B. Hoff, *Economic Calculation in the Socialist Society* (W. Hodge, London: 1949) for a discussion of the attempts to organize a socialistic system without using money and of the growing acceptance by socialist theorists of money as a medium of exchange and a means of control.

The use of money imposes a certain superficial similarity on all three models.

(1) Money, or generalized purchasing power, moves from the citizen-consumers to firms selling final goods and services and from these firms back to suppliers. The State and every enterprise, public or private, uses money to purchase or hire resources. In the last analysis, this money is paid to persons and again becomes available to continue the endless process of producing and consuming. All economic systems have this *primary monetary circuit*.

(2) In all three models the economy also provides goods and services which are either inherently nonvendable or nonvendable because of a political decision. The general over-all governmental administration (national defense, the maintenance of domestic law and order, the support of the executive, legislative, and judicial branches of government) involves services which are inherently nonvendable. Other services (education, roads, parks, playgrounds, public health, etc.) could be charged for but may be made freely available to all or to selected groups of citizens. All of these gratuitous public services make demands on the limited resources of the economy and involve the spending of money.

The money in the monetary circuit passes eventually into the hands of individuals and forms part of the potential money demand for vendable goods and services. In and of itself, the money spending by government is inflationary. In all three models it is necessary, therefore, to provide a mechanism for drawing off an equivalent amount of money, if perpetual inflation is to be avoided. Taxes of one sort or another are required to siphon off this excess purchasing power.

(3) All three models are equipped with inlets and outlets through which the money obligations arising from trade with other economic systems have to pass. Exports bring outside money into the system, while imports drain money from the system.

(4) Finally, all three models have inlets into the primary monetary circuit to provide for capital formation. The money coming in through the investment inlet goes to firms making capital goods and from them to resource owners as disposable income. The immediate effect of this particular money flow is similar to that produced by public expenditures used to provide nonvendable services. It diverts resources (assuming full employment) from the consumer goods industries, reduces temporarily the volume of final vendable goods and services, and increases the monetary demand for this reduced supply. In time, of course, the new capital increases the

volume of such goods and services. The first effect, however, is inflationary, unless the investment funds represent money that would not otherwise have been spent for consumer goods and services.

In the capitalistic model with a 100 percent gold reserve standard the money passing through the capital formation inlet comes from real savings and hence reduces the direct return flow of purchasing power at the consumer retailer joint in the circuit. This diversion eliminates the inflationary effect and hence forces a growing economy to operate with secularly falling prices.

In the capitalistic model with fractional reserve banking, the banks provide part of the money entering through the investment inlet. This makes it possible for capital formation to proceed, even within the straightjacket of an international gold standard, without any fall in the general level of consumer goods prices, or even to the accompaniment of slowly rising prices. Fractional reserve banking introduces the possibility of "forced savings." In general, however, the rate of capital formation in the capitalistic models is determined by the private decisions of the citizens as consumers and entrepreneurs. An interest rate emerges which equalizes the amounts which the citizens are willing to save, given their individual rates of time preference, and the amounts the entrepreneurs are prepared to use, given their profit expectations.

As will appear presently the communist model cannot, and it is very doubtful whether the socialist model can, generate a spontaneous interest rate capable of determining the flow of money through the investment pipe line. There is need for a political decision.

**Basic differences.** Despite these basic similarities, the motors which drive the systems require very different kinds of fuel. This is due to the fact that the systems are animated by different concepts of social justice which call for very different distribution results.

*The power generators.* In the capitalistic models the primary power generator is self-interest.<sup>2</sup> The citizens as resource owners strive to put their lands, their capital, and their labor at the disposal of the firms which offer the best terms, and then to spend the resulting incomes on the goods and services which, in their judgment, will yield the greatest total satisfaction. Their efforts at maximization require that they apportion their incomes between present and future goods and services in such fashion as to equalize the

<sup>2</sup> It is suggested that the reader review at this point the discussion of the meaning of self-interest in Chapter 3, pp. 33-4.

marginal utility of the last dollar spent on every type of present good and the last dollar saved for future consumption.

The managers of firms similarly strive to maximize earnings by paying as little as possible for resources and charging as much as possible for their products. Competition, however, forces them to pay identical prices for resources of equal significance, and these prices tend to be those that clear the various resource markets. Competition further induces them to adjust production in the short run so as to equate marginal cost and marginal revenue.

Thus, in the capitalistic models impersonal forces determine what things shall be produced, what firms shall be charged with their production, what resources each firm shall use, what prices it shall pay for these resources, and where and at what scale it shall produce. The production, distribution, and consumption patterns are all determined in a fashion which possesses internal consistency and which in addition tends to harness the powerful drive of self-interest and hence to minimize the need of political directives.

The power generator in the other two models is supposed to be "the social interest" or the general interest. Actually, of course, an important place is reserved for the general interest in a responsible private enterprise system and, neither in theory nor in practice, is it possible for the communist and socialist models to dispense entirely with the drive of self-interest. The difference, though a matter of degree, is so great as to warrant the statement that a basic difference in the models is to be found in their prime power generators.

*The distribution formulas.* The distribution formula of capitalism is: From each according to what he can or wants to contribute with the resources at his disposal; to each according to what he actually does contribute.

In economies operating according to this formula, there is no need for a central plan and relatively little need for organized compulsions. This situation creates an environment extremely favorable to the principle of liberty. Liberty requires reasonable freedom of economic choice, and freedom of economic choice precludes detailed physical planning. It obviously cannot flourish in a system in which individuals are expected to act, day in and day out, in ways that are contrary to their obvious self-interest. Any model which fails to utilize this driving force to keep money and goods moving through the pipe lines of the system must provide authoritative directives which can easily degenerate into tyranny.

The distribution formula of pure communism is: To each according to his need, from each according to his ability. The driving

force in such a system must obviously be altruism or compulsion.

Communists and socialists alike recognize the impossibility of any early realization of this distribution formula. They admit that man is not yet ready for the change. He has been corrupted by the capitalistic institutions under which he has lived so long. He must first go through the socialistic transition system in which he will be *rewarded according to the importance of his work contribution, and that alone*. Land and capital, the instruments of production, will be socially owned. Their *imputed* contributions to the social output will be used to support the administration of the system and to increase the real incomes of the workers. There will be personal income inequalities under socialism, but it is expected that they will be exclusively wage inequalities and hence far less than those prevailing under capitalism. Furthermore, socialist theorists hold that if the resulting inequality should prove greater than they anticipate, the socialist State can, like the capitalist State, tax away a portion of the larger personal incomes and use the proceeds to pay for social services particularly useful to the lowest-paid workers. Nonetheless the essential distinction between communism and socialism, as models, is in their distribution formulas.

When the discussion turns from the realm of ideals to the area of strategy, it is necessary to make a sharp distinction between the socialist and the communist. In the West at least, a socialist is one who cherishes, or at least claims to cherish, so highly the intangible values which have developed under capitalism<sup>3</sup> that he would not *wittingly* sacrifice them even temporarily as the price of accomplishing the overthrow of capitalism. Consequently he advocates a step-by-step approach to his goal. He insists upon the eventual attainment of socialism by evolutionary and democratic processes. Each step must be by vote of the people and with compensation for the private property taken over en route. While agreeing with the communist that the receipt of income from private property is wrong because of its distribution effect, he yet holds that it would be wrong to confiscate the property rights of some while leaving intact the rights of others.<sup>4</sup> *The means must justify the end.*

The communist, on the other hand, rejects the principle of gradualism and compensation. What is called for is a quick, sharp

<sup>3</sup> For a persuasive defense of the thesis that modern capitalism made possible the communistic and socialist visions, see Joseph A. Schumpeter, *Socialism, Capitalism, and Democracy*, Harper & Bros., 3rd edition, New York: 1950.

<sup>4</sup> The doctrine of gradualism makes it possible for men who call themselves socialists to disagree regarding the extent to which private property and private enterprise should be allowed to operate in a particular country and at a particular time.

surgical operation—revolution—the confiscation of whatever properties are necessary to the launching of the new system, and the liquidation of all those whose mentalities are so hopelessly “bourgeois” that they cannot even be useful in the most menial roles. *The end justifies the means.* Furthermore communists hold, and perhaps correctly, that gradualism is not really workable. Once the bourgeoisie wake up to the fact that their days are numbered the capitalistic system breaks down. The only merit in the doctrine of gradualism from the communist point of view is that it hurts production, creates confusion and social discord and hence hastens the revolution.

However legitimate one's rejection of communist tactics, one cannot, for that reason, reject the communist ideal. The ideal is inspiring. It is, to a considerable extent, the ideal that animates the family. “From each according to his ability, to each according to his need” is an expression of the highest possible ethical principle, *provided the sharing is spontaneous.* If it is rejected, it must be rejected on better grounds than that it inspires fanatics to deeds of violence that threaten the very foundations of civilization. The cruelties of the Inquisition did not lead to the rejection of Christianity.

If communism as a model is to be rejected it must be on the twofold grounds that it is unworkable and that any actual regime which really attempts to realize the communist ideal will function progressively worse, the closer it approaches this model.

Any comparison of the actual performances of contemporary economic systems must take account of many imponderables. The better performance of the one at a particular time—the American predominantly private enterprise economy as compared to the British more socialistic economy in the five post World War II years, for example—may be due to temporary conditions resulting from World War II and not to any inherent superiority of its blueprints. No attempts at such a comparison of actual systems will be attempted here. We shall confine ourselves to an examination of models and to noting the conditions that have to be satisfied if they are to perform satisfactorily. It will then be up to the reader to decide for himself whether the values which he holds to be most important are more likely to be realized in an economy which uses ideal capitalism as its model or in one which is based on the ideal communist model or the ideal socialist model.

### THE COMMUNIST MODEL

Communism is much more than an economic system. It is essentially a religion, and Karl Marx (1818-1883), a German refugee scholar, is its prophet. *Das Kapital* is its bible, and the Communist Manifesto of 1848 is its "ten commandments" to the faithful on the strategy to be followed for bringing in the millenium.

This is not the place to explain the great appeal of communism or to evaluate Marx's theory of value or his misuse of the Hegelian dialectic to prove the inevitability of communism. It may not be out of place to point out here, however, the practical importance of the Marxian doctrine of inevitability. It gave heart to the faithful when they were but a handful. It encouraged the timid to enter the fold. It furnished the fanatic with a justification for any conceivable deceit, for any act of violence that would hasten the revolution. If communism is good and its coming is inevitable, opposition is sinful. Conduct is not to be judged by the "bourgeois" standards of truth, charity, and tolerance. The only valid test of an act is whether it advances the cause. The end justifies the means. Only after the cause has triumphed will the bourgeois virtues again have validity. Until then they are but snares set to paralyze our wills, to keep us in chains.

**Its fallacious assumptions.** There are a number of reasons why an economy built on the pure communist model would prove unworkable and undesirable.

In the first place the communist distribution formula cannot be translated into an action program for free men. The needs principle is only workable within small intimate groups such as a family farm or a small family business. It is workable there because there is a "head of the house" whose right to make decisions is recognized and who is in a position to know what are the reasonable needs of the members of the household. Where the ties of affection are strong, no serious problem of enforcement arises.

*The needs test.* The simple needs test is inapplicable to a society made up of millions of family units. The needs of each family are its wants as seen by the head of the household, and the aggregate of these needs-wants is bound to exceed the productive capacity of the society as a whole. Wishful thinking cannot abolish the law of diminishing returns. Nor is there any reason to believe that the assurance of a family income adequate to meet family needs would solve the population problem. If family income is to be automatically increased with family size, the State will have to regulate the size of the family.

*The ability test.* The ability test is equally unsatisfactory. If an individual's needs are guaranteed, he cannot be allowed to refuse every job except that for which he feels that he is best fitted. Labor is not a homogeneous, undifferentiated factor. It is millions of men and women possessing a wide range of skills, aptitudes, and interests. How are these qualities to be discovered and how are their possessors to be induced to use them for the general welfare? One difficulty is that the possessor of a rare skill may not even know that he possesses it. In that event the communist society is not likely to discover it. Hardly less serious is the fact that the possessor of such a skill may not care to disclose it if the reward assigned to him is independent of the job. He may prefer to pursue an activity for which he is less fitted but which he finds more satisfying. This is his privilege in a capitalistic society where rewards are based on what he *chooses* to contribute. In a communist society this could not be tolerated. If all are to be rewarded according to their needs within the limits set by the production plan, all are going to have to accept specific job assignments.

*The communist theory of human nature.* The ability test rests on a faulty theory of human nature. Man is neither wholly altruistic nor wholly selfish. His selfishness is itself admixed with altruism. Seldom does he seek more just for himself alone. His concern is for his family, his close neighbors, his lodge, his church, his union, his community, his state, his nation and, perhaps, for humanity itself. But the intensity of his concern for other groupings necessarily diminishes as the groups become larger and more remote. In a moment of exaltation many men are capable of making highly altruistic decisions that involve the sacrifice of their fortunes and their lives. Very few, however, are capable of making and renewing hour after hour, day after day, small prosaic decisions directed at the promotion of anything as vague as the general welfare. Yet this is precisely the kind of altruism communism demands if it is to be humane and democratic.

But even if this kind of altruism did exist, it would not be enough. What is the general welfare? Ask a dozen altruists to define it and you will get a dozen answers. The general welfare has to be authoritatively determined and translated into a detailed program involving the production of literally hundreds of thousands of different items. And its realization calls for the assignment of men to jobs.

There is no need to speculate here regarding methods of realizing this idealistic distribution formula. The practical difficulties will

become sufficiently evident in our examination of the less ambitious socialist model. Here it suffices to note that the closer an actual economy approaches the communist ideal, the more absolute and ruthless must be the dictatorship. The more fervently and sincerely the wielders of power believe in the righteousness of the ultimate goal, the more difficult it is for them to tolerate any conduct that diverts the economy from the true goal. Altruism itself is not enough, since a dozen altruists may have a dozen different visions of the good society. It follows that the area of personal freedom reserved to the individual cannot be large enough to permit him to grow in moral stature by being confronted day to day by alternatives and by learning to choose voluntarily the more worthy alternative and to reject the less worthy. Consumption cannot be determined by *his* views regarding *his* needs and what *he* is willing to sacrifice to satisfy them, nor by *his* views as to what constitutes the general welfare. It will be pure accident if the job assigned to him is the one he would prefer above all others. Communism must end in slavery.

Nor is there any reason to expect that the slavery would be benevolent. The concentration of power required to make the system work is bound to corrupt those in authority. Natural inclinations must be constantly checked and thwarted. Having thrown away the "carrot" of personal incentives, communist planners have no choice but to use the lash and the concentration camp.

Communism is one of the Great Illusions of our age. It is indeed a specter haunting not just Europe, as Karl Marx proclaimed in the Communist Manifesto, but the whole world. Its idealistic but unrealistic distribution formula could not preserve freedom in a society of angels. Its imposition on societies of weak and selfish men could only end in disaster.

### *Questions:*

1. Identify and distinguish between the so-called "mundane" values and the intangible values which an economic system must satisfy if it is to be called "good."
2. "The use of money as a medium of exchange necessarily imposes a certain superficial similarity on all economic systems." Explain.
3. Discuss critically the strengths and weaknesses of "self-interest" and the "general interest" as the primary animators or power generators of economic systems.

4. Identify the distinguishing characteristics of communism, socialism, and capitalism regarded as “models” and as political movements.
5. Compare the relative realism of the assumptions underlying the capitalistic and the communistic models, i.e., which set of assumptions provide the more precise and useful guides for State action. (See Chapter 20 for the assumptions of capitalism.)
6. State your goals for “the good society” and argue for or against the desirability of giving economic equality “number 1 priority.”

## *Socialism*

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**S**Ocialism, as we have seen, accepts for the time being, at any rate, the capitalistic principle that rewards should be related to contributions. The contributions of the nonhuman resources, however, are to go to society as a whole. Only inequalities in wages are to be permitted. Wage differentials are to be used as inducements, as incentives, and as guides to the proper allocation of the labor supply, very much as under capitalism. The citizens are then to be allowed to spend their earned incomes as they see fit. These two freedoms, it is argued, will suffice to guarantee fundamental human values and without the need of accepting the inequalities which result from the institutions of private property and the right of bequest. Accordingly we shall call the model to be examined in this chapter “liberal socialism” to distinguish it from the authoritarian socialism of the avowed communist.

### THE MISES INDICTMENT

In the early 1920s Professor Ludwig von Mises, then of Vienna, published an article<sup>1</sup> in which he argued that the destruction of private property in land and capital makes impossible the establishment of objective prices for the material means of production and hence deprives society of the means of calculating costs. Lacking the necessary data, the socialist State has no way of determining what constitutes the most effective use of its scarce material resources. The State could, of course, assign arbitrary prices to every concrete instrument of production and instruct the plant managers

<sup>1</sup> The article was elaborated upon in his *Die Gemeinwirtschaft* (1921) which later appeared in English under the title *Socialism* (1936). His argument and the replies to his critics are to be found in his *Human Action*, Yale University Press, New Haven: 1949.

to act as though these were genuine prices. But these prices would not measure the real economic significance of the instruments of production and hence would lead to faulty production decisions. Furthermore the managers could not discharge the entrepreneurial function which the private businessman discharges in a capitalistic society. The end result of socialism, according to Mises, is stagnation, progressive impoverishment, tyranny, and war.

The fiasco of the first efforts of the Russian communists to set up an economy freed from the directives of competitively determined factor prices forced socialist theorists to deal with Mises' charge. The majority of them now recognize that Mises has raised an issue that will have to be met if they are to continue to assert the feasibility of socialism.

The model developed in this section represents the efforts of honest and competent socialist theorists to meet Mises' criticisms. It attempts to respect the consumer freedoms and the job freedoms which Mises held to be essential to the maintenance of a free society. Curiously enough the outcome is a competitive price-directed socialism which involves the very types of behavior that socialists decry in contemporary private enterprise societies. Its successful performance requires both perfect markets and a perfect State. It is highly unlikely that any socialist party would be willing to preserve so many features of the capitalistic system as this model requires. Nonetheless the model exercises a tremendous fascination on intellectuals and helps explain why so many people of genuinely liberal convictions refuse to be disillusioned by recent socialistic experiments.

### THE PLANNING BOARD AND THE PLANNING BUDGET

In the "liberal socialist" model the instruments of production are socially owned. The technical tasks of production are assigned to *Managers* charged with the production and distribution of *vendable* goods and services, and to *Ministers* charged with providing the services which are either *nonvendable* or deliberately provided gratuitously. There is no longer any sharp distinction between the public and the private sectors of the economy. The distinction now is between activities for which a direct charge is made and activities provided gratuitously.

**The Planning Board.** A Planning Board is an essential feature of this model. It must work out a Plan. The Plan, we are told, will be democratic in the sense that, in its broad outlines, it will have been

endorsed at the polls, and that, at intervals, the citizens will have an opportunity to vote out of office those in power, and, if successful, to secure the appointment of a new Planning Board charged with the formulation and execution of a new plan. But between elections the Planning Board must be clothed with rather plenary powers. This does not preclude the possibility of frequent small changes to meet technical shortcomings or popular dissatisfactions as registered in the press and public discussions. But it does not exclude the possibility that the control of all jobs will enable those in power to reduce elections to a farce. For the time being, however, we shall assume that the citizens retain the power to elect representatives of their own choosing.

We shall examine this model first on the assumption that our socialist society has no trading relations with other countries and then re-examine it on the assumption that it is part of a world of independent and sovereign countries.

**The Planning Budget.** The financial aspects of the Plan are embodied in the National Budget. The Board sets up a gross national product figure in the money of the country—dollars, for example. This over-all total is broken down into three sub-budgets:

- (1) *The Public Services Budget:* This budget contains the allocation for the gratuitous services and the subsidies for any vendable services that are to be provided at less than cost.
- (2) *The Commercial Services Budget:* This budget contains the sum allocated to industries producing vendable goods and services.
- (3) *The Investment Budget:* This budget contains the amount to be used for the maintenance and the planned increase of the nation's capital goods, including housing.

Each of these sub-budgets is broken down into a large number of smaller budgets, one for each Industry<sup>2</sup> and each Ministry.

**Control of current operations.** The Planning Board opens up drawing accounts with the National Bank for each Ministry and each Industry. (We reserve for later the handling of the Investment Budget.) The Ministers and the Managers in turn allocate their credits to various subordinate offices and plants. The Planning Board may determine the precise amounts to go to these subordinate agencies, or it may give considerable discretion to the officials in

<sup>2</sup> The grouping of plants into industries will prove difficult. Many plants properly belong to half-a-dozen or more industries as was noted in the discussion of the Walsh-Healey Act.

charge of the ministries and the industries. This is a detail, though an important one. The principle of decentralization, which "liberal socialists" make much of, calls for a wide application of intra-agency allocations.

At the beginning of each new planning period every responsible operating official will have a drawing account of a known amount with the National Bank. His task is to use this money to produce as economically as possible the kind of things he can produce with his existing physical facilities and to maximize his profits or minimize his losses. He is expected to compete in the labor market and in the materials markets for the workers and the supplies he requires. This competition is expected to produce prices that will clear these markets and produce identical prices for labor and for materials of equal significance.

In order to know whether a particular plant is maximizing its profits or minimizing its losses, it is essential that the Planning Board charge it for the use of the land, the buildings, and the very durable equipment entrusted to it. The fixing of the amount of this charge is one of the thorniest problems confronting the Planning Board. The charge should certainly be enough to cover the cost of replacing equipment as it wears out. But this is not enough. An interest charge must also be added. How is the interest rate to be determined? We shall deal with this problem in connection with the Investment Budget. Here we shall simply assume that the appropriate rate has been set and that each responsible operating official's performance is to be judged on the basis of his ability to recover from his customers this expense as well as his current operating expenses.

The land is presumably indestructible. It is essential, however, that those assigned superior land should be charged a sum equivalent to the rent item in capitalistic accounting. Otherwise there is no way of comparing the relative efficiency of plant managers or the true costs of production. The original acquisition price of land might serve for a time as the basis for determining the land utilization charge, but with every passing year this figure would become more unrealistic. Socialist theorists say that, since the demand for specific plots of land is derived from the demand for the products made with the use of these plots, their values can be imputed. The absence of a real market for land complicates the problem. It may very well prevent the Planning Board from getting and keeping each plot of land in its highest and best use.

So far the tasks confronting the Ministers and the Industry Direc-

tors are the same. It is with respect to the size of their operations that differences emerge. The Ministers are expected to spend all the money allotted to them and to make the money go as far as possible. This is the problem of bureaucratic efficiency that confronts private enterprise systems, which also have a fairly large public sector. No issues of theoretical importance are involved.

It is with respect to the vendable goods sector that the problem of judging and securing efficiency becomes difficult. The problem involves (1) the establishment of efficiency standards; (2) the selection of the Industry Managers and the plant Directors; and (3) the provision of incentives and disciplines for the managerial group.

*Efficiency standards.* Uncertainty necessarily prevails in this sector due to the fact that consumers and workers alike have freedom of choice. Plant managers know what their drawing accounts with the National Bank are, but they do not know what their expenses of production and their revenues are going to be. As production proceeds and sales are made, some plants will show profits and others will show losses. Efficiency requires that the firms showing surpluses should expand outputs until their marginal revenues equal their marginal costs. The others should contract until their marginal revenues and their marginal costs are equalized at levels below their average costs.

If the profits and losses persist, the Managers of the profitable industries must be able to secure additional capital with a view to establishing new plants or enlarging existing plants which have not yet reached optimum size. Conversely some of the capital attached to the unprofitable industries must be withdrawn. These expansions and contractions do not involve net capital formation. The proper procedure, therefore, is for the Planning Board to transfer an appropriate part of the amortization payments of the unprofitable industries to the accounts of the profitable industries and to direct the Managers involved to make the necessary internal adjustments.

In theory the adjustment of outputs and capacities in the several industries to changing conditions of supply and demand is simple. It requires considerable optimism, however, to believe that the adjustments will not be much slower than in private enterprise systems where the profits and the losses fall directly on individuals and hence predispose them to react promptly. The Managers of the unprofitable industries will not like to see their domains contracted; they may be expected to argue that the situations confronting them are temporary and that they have already taken remedial measures. The Planning Board cannot possibly possess the detailed knowledge

needed to evaluate the claims and the counterclaims of the Managers. British socialist experience with the African ground-nut venture and with the coal mines shows how difficult it is for a central authority to cut losses before they reach serious proportions.

Economic analysis shows that this problem of adjustment is solvable at the theoretical level, and that is all that the economist, as economist, can say. But if the misgivings of the skeptics should prove correct, then a considerable element of waste may be part of the social costs of "liberal socialism."

*The selection of the managing personnel.* In a private enterprise system the selection of the managerial group is a relatively cold-blooded affair. They must succeed or they are displaced. Competition—and, still more, potential competition—keeps them constantly on their toes. Technically they are not innovators; yet, in fact, the managers of successful firms tend to be innovators as well as routine administrators. Their very large salaries and bonuses are, in part, rewards for innovation. They may not be risking their own capital when they propose radical changes, but they risk their reputations and their jobs.

Would a politically appointed Planning Board be as successful as private business in the selection of its Industry Managers and the hundreds of thousands of plant managers? No definite answer can be given to this question. The writers personally doubt whether the method of political selection would be as effective as that prevailing under capitalism—but it might be.

*Managerial rewards and disciplines.* The socialist method of rewarding the Industry Managers increases the likelihood that their performance will be inferior to their performance in private enterprise economies. It can be taken for granted that salaries would be fixed according to some administratively defensible standard, much as in the civil services of all modern governments. Rewards according to contributions would be but imperfectly realized for this small but highly strategic group. It is probable that the routine administrative functions would be reasonably well performed. But the overcoming of administrative lethargy, on the one hand, and the curbing of overambitious Managers, on the other, would prove difficult.

**The Investment Budget.** Two problems are involved in the management of the Investment Budget. The first has to do with the determination of the proportion of the planned gross national product to be devoted to net capital formation. The second has to do with the allocation of the investment fund between the Industry

and the Public Services sectors, and within the Industry and Service sectors.

*The savings-investment decision.* In a private enterprise economy the rate of capital formation is determined not entirely, but to a considerable extent, by the time-preferences of resource owners. Can the Planning Board allow the time preferences of the socialist citizens to play the same role? Theoretically, yes. But note the dilemma facing the authorities if they attempt to respect this aspect of consumer sovereignty.

Reliance on voluntary savings produces a "rentier" class, and, if the right of inheritance were recognized, a greater degree of inequality would develop than that prevailing under capitalism. Under capitalism, the inheritor must risk his inheritance in the market if he is to derive any income from it. The inheritor in the socialist society could only invest in government bonds. He would thus be guaranteed a completely riskless income. The "shirtsleeves to shirtsleeves" justification for inheritance under capitalism would be gone. It may be taken for granted, therefore, that the right of inheritance would be narrowly restricted. But, in that event, the authorities are immediately confronted with another problem. Why should a person save more than enough to provide for an occasional splurge or for a more comfortable living in his old age? The socialist citizens, taken as a group, would make no net savings over their lifetime. The State would be forced to assume full responsibility for the maintenance and accumulation of capital.

Abolition of the right of inheritance would involve a further complication. It would introduce a direct incentive for persons with large earned incomes to spend as they earned. This would lead to a more flagrant type of "conspicuous consumption" than that which Thorstein Veblen<sup>3</sup> found to be characteristic of private capitalism. If public opinion frowned upon this type of behavior—and the egalitarian bias inherent in socialism makes it virtually certain that this would be the case—men of ability would be tempted to save with a view to retiring as soon as they had accumulated enough to live as well as it was safe to live without offending the socialist mores. In either event, the end result would be waste—either wasteful consumption or a serious loss of man power, and precisely the man power which the society could least afford to lose.

<sup>3</sup> Thorstein Veblen, *The Theory of the Leisure Class*, Viking Press, Modern Library Ed., New York: 1899. Excerpts relative to the issue raised here are in Gayer, Harriss and Spencer, *Basic Economics: A Book of Readings*, Prentice-Hall, Inc., New York: 1951, pp. 57-60.

For all these reasons it seems probable that "liberal socialism" cannot leave to the citizens, in their roles as consumers, the final decision as to the rate of capital formation. The Planning Board must decide on the relative importance of the present and the future.

*Danger of underinvestment.* There are several reasons for believing that this collective decision would result in a rate of capital formation substantially lower than that typical in either a healthy private enterprise economy or an authoritarian and war-oriented socialism.

(1) *The greater equality* expected to prevail would automatically decrease the propensity to save, to use a Keynesian expression. The liberal provisions for the aged, which are part of the socialist promise, would further reduce the incentive to save for retirement. The destruction of the right of bequest would, as already indicated, encourage the higher wage and salaried workers to live up to their incomes and retire at an early age. In the absence of compulsions the "liberal socialist" economy would be a very high consumption economy.

(2) *The democratic processes*, which "liberal socialism" would preserve and respect, would make it politically dangerous for the Planning Board to call for any large, present sacrifices. Indeed, if the Party came into power on the basis of roseate promises of an immediate improvement in the lot of the "downtrodden proletariat," the Planning Board might not be able to allocate enough to the Investment Budget to offset the depreciation and depletion of existing resources. It would be under great popular pressure to permit the people to live beyond their means while it was consolidating its power. Recent European experience confirms the reality of this danger.<sup>4</sup>

(3) The third reason why investment is likely to be small is bound up with *the problem of innovation*. This innovation problem will be discussed presently. Here it suffices to point out that if innovation should be stifled the Planning Board would hesitate all the more to set aside very much for net capital formation. The reason is fairly obvious. The tendency to diminishing returns oper-

<sup>4</sup> Obviously the people in a popular democracy which is organized on capitalistic lines can also vote to slow down the rate of capital formation. All that is necessary is to vote for lavish public expenditures which promote consumption of wealth and highly progressive taxes which destroy the willingness and the ability of the minority to create wealth. If the slow-down is carried too far, the capitalistic engine stalls and the only alternative then may be to charge government with the task of maintaining capital. If this happens, the society has ceased to be a private enterprise society, and its problems merge with those studied in this chapter.

ates sharply when investment results simply in the provision of more of the same sorts of tools and equipment. The future benefits to be expected from present sacrifices are thus reduced. Unless "liberal socialism" can produce an environment favorable to innovation, popular pressures will be against a large investment budget. The reasons for expecting a slowing down of technological progress will be presented shortly.

**The allocation problem.** So much for the considerations which the Planning Board will have to take into consideration in fixing on a figure for the Investment Budget. Some figure will have to be set and it will have to be arbitrary. Let us assume that it is a positive one, i.e., one larger than the sums which the Managers are required to pay back to the National Bank out of current earnings as amortization and depletion charges on the resources for which they are responsible. How shall this sum be allocated as between the Public Services and the Industries, on the one hand, and as between the several Services and Industries?

The major breakdown, as between the Services, on the one hand, and the Industries on the other, is a straight political decision which involves no issues of theoretical interest. The legislatures of all capitalistic countries have to decide how much to devote to road building, new schools, post offices, courthouses, hospitals, and similar structures. If housing is subsidized, the housing subsidy would appear in the Public Services Investment Budget. All that can be said here is that the more the Planning Board allocates to this sector of the Investment Budget, the less will be available for the type of capital formation on which a long-time rise in the level of living primarily depends.

The issue of theoretical interest arises in connection with the allocation of the amount appropriated for the capital goods industries. How shall this fund be divided as between Industries, and, within each Industry, as between plants?

The decision to operate the system on the basis of consumer sovereignty and freedom of job choice requires that the Planning Board auction off this part of the investment fund. The Managers of the several industries could invite bids from their plant managers, in the form of statements of the amounts of capital they could profitably use at various hypothetical rates of interest. The plant bids would be combined into Industry *capital demand schedules* and submitted to the Planning Board. The Board would then identify the rate at which the total amount demanded for investment purposes was just equal to the amount set up in the Budget. Each Industry

and each plant would thus get the precise amount it could profitably use at that rate.

In this fashion, it is claimed, a functionally significant interest rate could be established which would not only serve to allocate the planned savings, but also to determine the charge to be paid by the Directors and the Managers for the land and the long-lived capital already in their possession.

Let us now look at the model as we have developed it up to this point. Logically it possesses internal self-consistency. If factors can be moved promptly from contracting to expanding industries, there is no reason why the economy would not operate continuously at the full-employment level. But, of course, this is equally true of the capitalistic model. Socialists claim, however, that the vested interests which cluster around private property prevent the factorial movements from occurring with the necessary promptitude. Socialization of the means of production is supposed to remedy this defect and, with it, eliminate the business cycle. The mobility assumption of the capitalistic model is expected to be realized in fact and not just in theory.

We shall be in a better position to evaluate this claim after we have considered the problem of innovation.

### INNOVATION

How is the innovation problem to be handled? Will "liberal socialism" provide an environment as hospitable to innovation as does the capitalistic model?

**Innovation under Capitalism.** Innovation occurs when a man with a new idea is able to enlist the resources needed to try it out. In a private enterprise economy the man with the new idea—the inventor—seldom has the capital needed to back up his idea. He must find men with imagination and judgment who have funds and who are willing to risk them. Innovation always involves risks. If successful, it destroys capital values in other parts of the economy and causes unemployment there. The automobile destroyed the buggy industry. The development of fuel oil hurts the coal mining industry. The innovators are not concerned with these losses. If they had to shoulder them, anticipated rewards would have to be much greater than they actually are, and innumerable innovations would be stifled, despite the fact that the direct and indirect benefits vastly exceeded the indirect losses.

Innovation is further favored in a private enterprise economy by the existence of literally millions of potential innovating centers.

Every individual proprietor, every partner, and every corporate Board of Directors is a court of appraisal of new ideas. Innumerable innovations get financed out of the retained earnings of enterprises. Today our great corporations are our principal innovating centers, nurturing the ideas, screening them, and providing the capital. Investment bankers are also sifters of new proposals. A single individual may back a lone inventor.

The point to note here is that innovation flourishes in environments in which contact is easily established between men with new ideas and men who control liquid capital that can be diverted to the exploitation of these ideas. At the same time the personal risks involved lead to a meticulous scrutiny of new ideas and the prompt cutting short of experiments which fail to meet the acid test of consumer acceptance.

**Innovation under "liberal socialism."** In the socialist model each plant manager might be instructed to incorporate in his periodic statement of the amounts of savings he could profitably use at various rates of interest a figure for investments of an innovating type to be developed within his organization. This inclusion would shift the demand schedule for savings to the right and result in a higher rate of interest. Thereafter the allocation of planned savings to Industries and to plants would follow as before, and innovating proposals would get their due share of planned savings. The Planning Board would not have to set itself up as a court of appraisal.

But is this a realistic solution? Could the Board divest itself of the responsibility for weeding out the less promising proposals?

It must be remembered that men with new ideas are seldom the best judges of their economic feasibility. They are enthusiasts—dedicated men. Their schemes have to be tested by individuals possessing a rare combination of daring, caution, and judgment. This phase of the innovating process is at least as important as the idea phase. In a private enterprise system it is in the hands of men of property whose willingness to take risks is tempered by the knowledge that it is their own property they are risking. The large net gains which an innovating economy enjoys are due as much to the killing off of impracticable ideas as to the successful maturing of fruitful ideas.

If the Planning Board divested itself of the responsibility of screening the demands for capital for innovation, the inventors would enjoy a field day. In that event, however, the proportion of "screwball" ideas in the investment program would be so high that the net gain from innovation would be small, or even negative.

It seems probable, therefore, that all innovating ideas that got

through the screening process at the Industry level would have to go before the Planning Board, as a final court of appraisal. Furthermore this final court, being responsible for the general welfare, would have to consider in each case not only the probable gains but also *all* of the probable indirect losses involved. These losses would ordinarily fall in the first instance on other industries. The Managers of these Industries would have to be given a hearing. They may be expected to point out the problematical character of the expected gains and the certainty of their own losses and of those of the workers attached to their industries. It is difficult to escape the conclusion that technological progress in most fields would be much slower in a genuinely liberal and humane socialism than under a dynamic, competitive enterprise system.

### “LIBERAL SOCIALISM” AND THE BUSINESS CYCLE

One of the attractions of socialism is its alleged immunity to the business cycle. If “liberal socialism” can abolish the business cycle and with it the wastes and suffering that have gone with the severe depressions of the past, its case is very strong. A slow but uninterrupted rate of capital formation might lift levels of living more in a generation than can private capitalism with its spasmodic investment spurts. And living might be more secure and more satisfying.

The National Resources Committee estimated the loss of potential income in the eight-year period, 1930-37, for the United States alone at \$200 billion dollars. (*The Structure of the American Economy*, Part I, p. 2 (June, 1938) ). At today's prices the loss would be at least twice as great.

An appraisal of this claim involves two issues: (1) the correctness of the assumption that major recessions, such as that of the 1930s, are inevitable under capitalism; and (2) the validity of the assumption that “liberal socialism” could avoid wastes of comparable magnitude.

**Capitalism and The Great Depression.** For the reasons given in Chapter 38 we do not regard The Great Depression of the 1930s as typical. It was the delayed and exaggerated outcome of the First World War and the improper and fettering governmental interventions of the 1920s. If this is true, the socialist claim should be judged not by the performance of “fettered capitalism,” but by what can be reasonably expected if governments confine their controls to measures that are consistent with the operating requirements of unfettered capitalism.

In one respect, however, the solution of the employment problem

might prove easier. Unemployment is, to a considerable extent, the price we pay for change.<sup>5</sup> An innovating society is one in which the rate of change is rapid. In such a society voluntary factor mobility must be high if involuntary unemployment is to be avoided. One way to simplify the problem is to stifle innovation. "Liberal socialism," as we have seen, may do precisely this. In a peaceful world this might not be too high a price to pay for security, but, for the time being, at any rate, it is a dangerously high price. National survival today depends on strength, and strength, in turn, depends on strong and progressive industries. The real choice today appears to be between a dynamic, private capitalism and some form of authoritarian and undemocratic socialism.

**"Liberal socialism" and the danger of overinvestment.** But even if we rule out military considerations, it does not necessarily follow that a "liberal" socialist regime would avoid wastes at least as serious as those associated with the cyclical fluctuations of a dynamic and responsible private enterprise economy. The Planning Board would almost certainly be compelled by international competition to provide considerable sums in the absolute sense for net capital formation. Some of this money would be used to finance investments of an innovating character. The chances are that the Board would not be in a position to evaluate the innumerable little innovations that are constantly being tried out in a regime based on private property. Most of these would never get as far as the Board. Such time as the Board could spare from its more routine duties would necessarily go to the examination of large and ambitious schemes capable of capturing the public imagination and promising early and dramatic results.<sup>6</sup>

Once an innovating venture was launched, the reputation of the Board members would be at stake. It is humanly understandable, therefore, that they would insist upon pushing an ill-judged venture

<sup>5</sup> See David McCord Wright's *The Economics of Disturbance*, Macmillan Co., New York: 1947, for a technical and persuasive demonstration of the fact that a dynamic Socialism would have business cycles.

<sup>6</sup> As long as some nations preserve the private enterprise system a socialist regime can copy the successful innovations developed there and avoid the unsuccessful ones. The thesis advanced here—that "liberal socialism" involves technological stagnation—is more likely to be true in a world entirely organized on that basis than in a world with a diversity of economic systems. But in such a world the "liberal socialist" regimes would be parasitic in the sense that they were usually borrowers and seldom contributors in the field of new production ideas. A fair evaluation of different models requires that we ask how each would perform if all nations adopted it. It seems to us that the tendency to technological stagnation must be counted as one of the serious deficiencies in the "liberal socialist" model.

much further than would any group of men who were risking their own fortunes. This is equivalent to saying that there would be relative overinvestment in particular fields.

The Russian experience with the first 5-year plan illustrates this danger. The plan called for the rapid industrialization and modernization of Soviet Russia. Enormous sacrifices were imposed upon the citizens in order that resources and man power might be made available for the gigantic task of modernization. With the factors of production all employed, continuation of the program required a progressive reduction of the resources devoted to the production of consumer goods. Toward the end of the period the suffering became so acute, discontent so widespread, that the plan had to be altered suddenly and radically. Labor and resources were shifted to the light industries producing consumer goods. The sudden shift involved the abandonment of all sorts of plants, factories and machines at various stages of completion. From a purely physical point of view, and using "idle plant" as the test of a business cycle, Russia had experienced a depression that may have been even more wasteful of her limited resources than that which the United States experienced in the 1930s.<sup>7</sup>

Had the Russian experiment been democratically determined the overinvestment would not have been carried so far, but, on the other hand, the guarantee of freedom of job choice which liberal socialism requires would have resulted in more unemployment as the emphasis shifted from the heavy industries to the light industries. In Russia the labor which had been devoted to the premature industrialization of the country was promptly reassigned to new tasks, in accordance with the new plan. The loss was large, but it was spread over the whole people in the form of a lower standard of living rather than concentrated upon that segment of the community which had been directly involved in the expansion.<sup>8</sup>

If our analysis is correct, it follows that the problem of the business cycle is not peculiar to either a planned society or a free enterprise society. It is the price people pay for a change. In the long run the price paid by people under socialism, whether it be liberal or totalitarian, may be even greater than under capitalism. The alleged immunity of "liberal socialism" to the forces which make for "business cycles" is far from being established.

<sup>7</sup> In this connection see Gottfried Haberler, *Prosperity and Depression*, Geneva: 1941, 3rd ed. enlarged, pp. 45-46. Also Wilhelm Roepke, *Crises and Cycles*, London: 1936, pp. 102 ff., and James W. Angell, *Investment and the Business Cycle*, New York: 1941, pp. 105-8.

<sup>8</sup> This is taken with minor alterations from John V. Van Sickle, *Planning for the South: An Inquiry into the Economics of Regionalism*, Vanderbilt Univ. Press, Nashville: 1943, pp. 11 ff.

### “LIBERAL SOCIALISM” AND PEACE

In the socialist literature one of the blackest marks against private capitalism is that it makes for war. Socialist societies, it is assumed, would be peaceful. With full employment at home, they would have no interest in exporting for the sake of exporting. The socialist citizens, we are assured, would never be duped by the silly fallacy that a country is enriched by exporting and impoverished by importing. On the contrary, the aim of the Socialist Planning Board would be to secure as much through imports as possible and to export as little as possible in return. Thus all socialist societies, it is argued, would be interested in buying rather than in selling, and, as a consequence, international trade would flourish and the prospects of world peace would be immeasurably increased.

If the claim is true, capitalism stands condemned. No tolerable way of life is imaginable if the nations are to plunge into war every generation. Recent progress in the arts of destruction make international peace one of the great imperatives of our times.

But is the claim true? Neither history nor theory bears out the claim. Professor Sorokin's studies have shown that war absorbed less of the energies of men during the 19th century, which was the century *par excellence* of unfettered capitalism, than it did during the preceding three centuries.<sup>9</sup> With the return to protectionism in the 20th century the destructiveness of war rises to a new high. Quincy Wright, in his carefully documented *Study of War*, shows that throughout all history socialistically organized societies have been more warlike than societies based on private property and private enterprise.<sup>10</sup> So much for the historical evidence.

Theory indicates why the evidence of history runs against socialism as the way to peace. Socialism must clearly begin at the national level. Moreover, it must start with some one nation or small group of nations. The simultaneous adoption of socialism by all the nations of the world can be dismissed as a practical impossibility. In the beginning, therefore, we are confronted with an interdependent world in which the national economies are partly planned and partly free. This freedom must complicate the task of the authorities in the socialist countries. From the very beginning, if they do not accept the *status quo*, their plans must provoke changes in internal price relationships. Some prices would be higher, others lower. However, at the start of the experiment, internal prices are related

<sup>9</sup> See Quincy Wright, *A Study of War*, Chicago University Press, Chicago: 1942.

<sup>10</sup> *Ibid.*

to prices in other countries. If producers abroad remained free to sell in the dearest market, an influx of imports would defeat the program. If high tariffs did not suffice, quantitative restrictions on imports would have to be imposed to protect the artificial price level. Conversely the fall in prices of other commodities would increase exports of these commodities if producers were allowed to choose between the home and foreign market. Meantime, the producers of these commodities in the free economies would bear the brunt of this artificially induced export and would be quite unable to adjust to it. They would be pitting their private resources against the resources of a nation. Their protests would be prompt and vigorous. Retaliation by the governments of the free economies, so far as they were not deterred by fear, would certainly follow, however sincere their attachment to the doctrine of free trade.

Thus national socialism even by a single powerful economy must result in a reduction of its trade with the rest of the world. More than that, it is likely to reduce international trade as a whole. The free economies, fearing to direct their retaliation exclusively against the planning country, or feeling bound by most-favored-nation clauses in their commercial treaties, would be likely to apply their restrictive measures to all imports, regardless of origin. The resulting internal dislocations would necessitate further public controls to protect important domestic groups adversely affected by the initial measures. Physical controls would be a necessary and permanent feature of the socialistic experiment, at the national level.

But even if it were true that Socialist Planning Boards would consistently try to secure as much through imports as possible and to export as little as possible in return, it does not necessarily follow that international relations would thereby be improved. This policy really boils down to an international struggle to get more for less. Logically it would appear to be fully as destructive of good international relations as the mercantilistic policy of trying to maximize exports and minimize imports.

That "liberal socialism" on a world scale is workable is a theoretical possibility. The prospects, however, of a peaceful merging of strong socialistic economies into a world socialism is entirely out of the question at a time when the spirit of nationalism is rampant as perhaps never before. Socialism, for the time being, must be national socialism and must be divisive and destructive of the principle of international specialization and international exchange based on the capitalistic principle of comparative advantage.

*Questions:*

1. Compare the distribution formulas of communism, socialism, and capitalism and summarize Professor Mises' arguments regarding the importance of private ownership of the instruments of production.
2. Define "consumer sovereignty" and show (a) how it is realized in the capitalistic model; and (b) how, according to socialist theorists, it could be realized in the socialist model.
3. Explain the role played by the rate of interest in the determination of the rate of capital formation in the capitalistic model. State the arguments for and against the proposition that the Socialist Planning Board could also use the rate of interest for determining the rate of capital formation which the socialist citizens would regard as most desirable.
4. "In a socialist society in which the Planning Board attempted to carry out the wishes of the citizens the rate of capital formation could very easily fall behind the rate of population growth." Present arguments for and against the validity of this statement.
5. "The so-called Keynesian prescriptions for keeping a private enterprise system operating at the full-employment level provides us with a model that resembles in many respects the socialist model developed in this chapter." Identify the resemblance and the differences
6. The claim is made that the Socialist Planning Board can have for its guidance "a functionally significant interest rate."
  - (a) Is it functionally significant in the same sense as the interest rate in the capitalist model?
  - (b) Does the use of the Keynesian theory of effective demand call for a different answer to the question than does the use of the more traditional economic theory? If so, indicate the nature of the differences.
7. Argue for or against the following propositions:
  - (a) "Technological progress (innovation) is likely to be higher in an unfettered private enterprise system than in a democratically controlled socialist system."
  - (b) "The problem of the business cycle is peculiar to a private enterprise society."
  - (c) "If Socialist Planning Boards consistently tried to maximize imports and minimize exports, the results could be as destructive of good international relations as the mercantilistic effort to maximize exports and minimize imports."
  - (d) "The socialist claim that the best way to abolish international wars is to abolish private capitalism can be supported neither by an appeal to history nor by an appeal to theory."

## Planning

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OF RECENT years there has been a tendency for "reformers" to urge that an end be made of the "sterile" ideological debate on the relative merits of capitalism and socialism and that we use our intelligences to devise some middle way that will enable us to enjoy the productivity and the freedom that capitalism provides and the greater social justice that socialism promises. Sir William (now Lord) Beveridge's *Full Employment in a Free Society* illustrates this approach. Its weakness at the theoretical level is its inadequate treatment of the problem of international integration. More recently and at the invitation of the Secretary General of the United Nations, a group of distinguished economists submitted a Report on *National and International Measures for Full Employment* which attempts to fill in this gap. Despite ideological differences the experts were able to agree upon a series of recommendations which they held to be capable of integrating national economies whether organized predominantly on capitalistic or predominantly on socialistic lines. As the title indicates, the guiding and unifying objective is to be full employment. Secondary objectives are individual security, greater personal income equality, and international integration. The authors take it for granted that the concrete measures they recommend are consistent with the principle of freedom.

The recommendations derive from the Keynesian theory of effective demand.

The Report states that there is a level of effective demand which will assure full employment and that this level can be maintained indefinitely if the State assures that, at all times, a balance exists between (a) saving and investment, (b) government revenues and government expenditures, and (c) exports and imports; or that a

lack of balance in any one pair of factors is offset by an appropriate lack of balance in one or both of the other pairs. "The sum of factors having a plus effect on expenditures, private investment, government expenditure and exports shall equal the sum of minus factors—savings decisions, taxes and imports." The authors of this Report reject the idea that spontaneous market forces can accomplish this balancing feat without continuous and far-reaching public interventions. "The central role," they declare, "must be assumed by governments."

The recommendations fall into two groups: those directed at maintaining domestic full employment and those aimed at preventing national measures from having an adverse effect upon the employment policies of other nations.

### DOMESTIC MEASURES FOR FULL EMPLOYMENT

The Report recommends that all governments, in fulfillment of the obligations<sup>1</sup> which they assumed on accepting membership in the United Nations, should (1) announce the range within which they propose to keep unemployment (the unemployment target) and (2) the means by which they expect to do this. In addition they should (3) announce and adopt supplementary measures to be put into effect whenever their general programs prove inadequate and (4) the measures which they plan to take to prevent full employment from producing inflation.

1. **The full-employment target.** A range of unemployment of from 2 to 4 percent, or from 3 to 5 percent, of wage earners is recommended as the appropriate "full-employment target." The term "unemployment" is defined as meaning "all workers without work and seeking work as wage earners, or working short time but willing and able to work full time." Curiously enough there is no reference to wage rates in this definition of unemployment, despite the well-known fact that workers may be unemployed purely and simply because of their unwillingness to accept work at prevailing wages.

2. **The continuing full-employment program.** The Report recog-

<sup>1</sup> The reference is to Articles 55 and 56 of the U.N. Charter. The pertinent passage in Article 55 reads: "With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations . . . the United Nations shall promote:

a. higher standards of living, full employment and conditions of economic and social progress and development; . . ."

Article 56 reads as follows: "All members pledge themselves to take joint and separate action in cooperation with the Organization for the achievement of the purposes set forth in Article 55."

nizes that the government of a socialistically organized country has a much wider range of measures at its disposal than has the government of a predominately private enterprise country. The measures recommended for governments of predominately private enterprise countries are grouped under five headings: (a) fiscal policy; (b) control of the volume of private investment; (c) planning of public investment; (d) stimulation of consumption; and (e) stabilization of the incomes of primary producers.

(a) *Fiscal policy*. The term "fiscal policy" covers the taxing, spending, and borrowing of central governments. The primary purpose of fiscal policy is not to balance the budget of the central government, i.e., to raise the taxes necessary to cover the expenses of operating the government, but rather to create a deficit or a surplus, according as unemployment or inflation, at the full-employment level, threatens. When there is a deficiency in aggregate demand, the experts recommend that governments plan for a deficit by increasing expenditures or reducing taxes, depending on circumstances. "Where government programs of high social priority await realization," increased expenditures are recommended. "Where government expenditure programs are adequate, but tax rates are felt to be high," tax reduction may be the more suitable method. Conversely, the national budget should show a surplus whenever effective demand is expected to be excessive, and again governments have a choice between reducing expenditures or increasing taxes.

A progressive personal income tax and a widespread social security program designed to secure continuity of income to low-income groups are endorsed as desirable permanent features of a full-employment fiscal policy because they exert an automatic stabilizing influence.

The progressive income tax is regarded as having several great virtues as an employment stabilization measure. With any given set of rates the yield is at a maximum when the economy is operating at the full-employment level, and the upper income groups, whose *marginal propensities to consume are low*, contribute a disproportionate part of the total yield. This reduces their propensity to save, and thus makes it easier for private firms to make use of their reduced savings. At the same time it spares the incomes of the low-income groups, whose *marginal propensities to save are low*, and thus maximizes effective demand for consumer goods and services. Conversely, if effective demand declines, the yield of the tax drops even faster than the national income falls, with the result that the needed inflationary deficit in the national budget emerges auto-

matically. There is no adequate recognition of the fact that highly progressive taxes have deflationary investment effects that may more than offset the inflationary effect of the budget deficit.

Generous social security expenditures are endorsed not only because of their welfare effect and their effect upon consumption, but also because they tend to decline in good times and increase in bad times. Hence they contribute to the development of a budgetary surplus at such times as full employment threatens to produce an inflationary rise in prices, and of a budgetary deficit whenever a deficiency in effective demand appears.

(b) *Control of the volume of private investment.* The Report recommends that governments should encourage or discourage private investment, according as savings tend to exceed or fall short of the amounts which private firms are prepared to invest. A number of devices are suggested. "Governments can provide special credit facilities or give guarantees or special tax inducements to private investors when it is desired to promote the expansion of investment in the private sector of the economy. On the other hand, restrictive credit controls, controls over the capital issues, and, in some cases, control and allocation of materials can be used when there is a danger that private investment is expanding too rapidly."

(c) *Planning of public investment.* Central governments are urged to plan their investment programs "so as to dovetail them with the fluctuations in private investment." Doubt is expressed, however, regarding the administrative feasibility of varying the scale of public works rapidly enough to make this a very useful device for offsetting short-run fluctuations in effective demand.

(d) *Stimulation of consumption.* The recommendations under this heading are designed to reduce the dependence of a country on investment as a means of maintaining effective demand. The alleged shortcoming of the investment route to full employment is that it leads to a rapid increase in the national income and to a still more rapid increase in the volume of savings. If these savings are not to cause unemployment, additional investment outlets must be found for them. The people are thus pictured as condemned to making more and more capital goods in order to avoid unemployment, when what they really want is more consumer goods.

Accordingly the Report suggests that some advanced industrial countries may find it desirable to maintain effective demand by encouraging consumption and to this end they should use the instruments of fiscal policy discussed above: a sharply progressive income tax with relatively high minimum exemptions; generous expendi-

tures on social security, education, health, etc. The control of monopoly prices is recommended as a means of increasing consumer demand through the reduction of profit margins. "Some countries," the experts add, "may wish to extend this principle further and use price control more generally in order to effect a more equitable distribution of income."

This last statement represents an endorsement of what has come to be known as suppressed inflation. Orthodox economists are in fairly general agreement that, in the long run, price controls and the whole apparatus for allocating resources which go with suppressed inflation are incompatible with the minimum requirements of a predominantly private enterprise system. Nonetheless a more general use of price control is here envisaged as a permanent feature of a full-employment program.

No less disturbing to orthodox economists is the endorsement of the idea that the abject poverty presently prevailing in the so-called underdeveloped countries can be reduced by a reduction of saving in the wealthy countries. This is a revival of the mercantilistic fallacy that the poor benefit from the lavish consumption expenditures of the wealthy.

(e) *Stabilization of incomes of primary producers.* The Report approves special agricultural price supports for the producers of agricultural staples on the ground that fluctuations of effective demand tend to affect the level of agricultural prices rather than the levels of production and employment.

**3. Automatic compensatory measures.** The foregoing measures are recommended as permanent features of an employment stabilization program. Some of them operate automatically as the effective demand generated in the private sector of the economy rises and falls. Thus with stable rates and exemptions, the yield of a progressive income tax rises and falls with rising and declining production and employment. Collections (payroll deductions) and disbursements made in connection with a social security program similarly vary with business conditions. Collections increase and disbursements decrease in good times and the reverse holds true in bad times. The experts are doubtful, however, whether such automatic flexibility would suffice to keep employment in predominately private enterprise economies within the "target" range. Accordingly they recommend that governments build into their programs additional elements of flexibility which would go into effect "whenever unemployment exceeds the range defined in the unemployment target by some predetermined amount for three consecutive months." The measures involved should be "on a scale sufficiently

large to make an immediate and substantial impact on the employment situation."

Four possibilities are suggested. (a) For countries with well-developed progressive income taxes a set of alternative rates and exemptions might be established which would go into effect automatically whenever unemployment rises above the "target" level. Lower rates or higher exemptions would leave additional income in the hands of taxpayers and increase the deficit (or reduce the surplus) in the government's budget. (b) Another way of accomplishing the same effect would be (i) to reduce the special contributions used to finance a country's social security program, or (ii) to suspend the contributions entirely, or, if necessary, (iii) to substitute for the contributions periodic subsidies to the employers and the employees involved in the program. (c) For countries which rely heavily on general sales taxes, predetermined variations in the rates would similarly serve to bring about a quick increase of the purchasing power in the hands of private individuals and firms. (d) Governments should try to operate their normal public works programs in a countercyclical fashion, but they should recognize that the scale of operations cannot be varied rapidly enough to justify making public works the main part of a continuing stabilization program. The advantage of the first three devices is that they are capable of altering very quickly the volume of effective demand in the private sector of the economy.

Recognizing the possibilities of abuse in a government guarantee of full employment, the Report suggests that "the executive organs of the government should have the power to waive the obligations under this legislation with respect to automatic compensatory measures, when there is clear evidence that a rise in unemployment is due to causes other than a fall in effective demand and cannot be cured by a stimulation of effective demand." When such a situation arises, and the executive organs of the government "wish to make use of this waiver, they should announce the precise reasons for their action." Here, and very timidly, the Report recognizes that structural maladjustments or monopolistic practices may be responsible for the decline in employment and that their prescriptions will prove of no avail.

4. **Stabilization of the price level.** The fourth general recommendation has to do with the stabilization of the general price level, and the safeguarding of the economy against the inflationary effects of trying to cure unemployment by increasing effective demand, when there is clear evidence that the rise in unemployment is due

to other causes. Among these other causes recognized by the Report are (a) temporary shortages and bottlenecks which bring speculative price increases in their trail; (b) monopolistic practices by organized groups within the community, such as trade unions, farm organizations, trade associations, and cartels.

Despite these guarded references to the threat of inflation inherent in any program of guaranteed full employment, the Report's major concern is clearly with the threat of deflation as the result of an inadequacy of effective demand. The lack of concern with inflation appears to be due to the conviction that the modern State is far more adequately equipped for cutting off an inflation than it is for overcoming deflation. We are familiar with the anti-inflation techniques which the experts have in mind: a budget surplus; an increase in the rediscount rate of the Central Bank; an increase in the legal minimum reserves of member banks; an increase in down payments on installment buying; and open market operations. These curbs are evidently regarded as so powerful that the experts find it necessary to warn that "a rise in prices provides no necessary evidence of a general excess of demand." Consequently, "if attempts were made to curb such price increases by restrictions of demand, they might only lead to reductions in employment and production even without a reduction in prices. Price increases resulting from factors other than a general excess of demand require selective measures of a direct or indirect nature, rather than measures which are the inverse of measures taken to stimulate demand. They should take the form of qualitative or quantitative credit control (introduced in particular threatened sectors of the economy), direct controls over inventories, and selective controls over prices."

The Report recognizes the danger of inflation confronting a country with a well-organized trade union movement, but offers only very general advice regarding the handling of the situation: "If there is evidence of a continued general upward pressure of money wages exceeding substantially the rate of increase of productivity and leading to offsetting price increases, the situation requires such action by the government, jointly with organized labor and employers' associations, as would ensure that any wage increase that may be granted will not result in a general price inflation. The character of the action to be taken would naturally depend on conditions ruling in each country." These considerations lead to the conclusion that "it would not therefore be possible to legislate in advance for any general measure that should automatically come into operation in the case of inflation." In brief, the principle of automatic built-in

guarantees against fluctuations in effective demand apply only to downward fluctuations, not upward fluctuations.

### INTERNATIONAL MEASURES

As was shown earlier<sup>2</sup> it is relatively easy to create a predominantly private enterprise model which will operate continuously at full employment with either a slowly falling, a stable, or a slowly rising price level, if the following conditions are satisfied: (a) pure competition in the sector reserved to private enterprise; (b) a perfect State which resolutely and successfully resists the excessive demands of special interest groups; and (c) complete absence of commercial relations with other countries. In such a utopia the gold standard would be unnecessary, and the type of functional finance recommended in the United Nations Report would be entirely appropriate.

It is evident from the reference to monopoly and to pressure groups that the United Nations' experts did not accept these unrealistic assumptions. They apparently take the position, however, that governments will be able to prevent monopoly and pressure group demands from getting out of hand if everyone knows that jobs are available at all times.

For the moment let us accept this position and go on to consider the international measures that governments are asked to take. The purposes of these measures are:

1. "To create a workable system of international trade for a stable and expanding world economy and thereby provide the conditions required for the elimination of undue trade barriers and for the restoration of the convertibility of currencies;

2. "To accelerate the orderly economic development of the underdeveloped areas of the world; and

3. "To prevent the international propagation of fluctuations in effective demand."

1. **Measures to restore international trade.** In order to create a workable system of international trade the Report recommends that the Member Governments keep in constant touch with one another with respect to their national full-employment programs with a view to integrating them into a harmonious whole. Each government is asked to indicate the "planned value" of its exports and of its imports and to state how it expects to handle the difference between the two magnitudes. This is referred to as the establishment of national "balance of payments targets."

<sup>2</sup> See Chapter 23.

Countries with "chronic deficits" in their balances of payments on current account should indicate by how much they plan to increase the value of their exports or reduce the value of their imports. Countries with "chronic surpluses" should declare the amount by which they intend to increase their imports or reduce their exports, and the amount of long-term lending which they wish to undertake on a continuing basis. These "targets" are to be expressed in quantitative terms and then adjusted at frequent intervals in the light of actual experience. The purpose of this recommendation is to create a situation in which countries with favorable balance of payments on current account will invest abroad the precise amounts which the countries with deficits in their balances on current account will need. In one way or another, of course, this equalization of surpluses and deficits always has and always must come about.

The method of handling the problem recommended here is based on the assumption that "deficit" countries have a right to borrow from countries with a surplus. Now a "right" is meaningless unless somewhere someone has a corresponding "duty." The duty here rests on the countries with chronic surpluses. They are under a moral obligation to increase their imports, reduce their exports, or lend the difference to the deficit countries. The international morality of the domestic full-employment programs of "surplus" countries is judged on this basis. Furthermore the measures they take must not involve a reduction in their internal production and income, as this would lead, via a decline in the domestic price level, to the reappearance of export surpluses.

The obligations laid on deficit countries are less severe than those imposed upon surplus countries. They are expected (a) to avoid internal inflationary measures which might "compromise their ability to export and aggravate their need to import; (b) to adjust their exchange rates downward in the event that their currencies are seriously overvalued; and (c) to promote such changes in their internal production structures as are needed to develop the exports required to achieve balance of payments equilibrium."

**2. Measures to encourage stable international investment.**<sup>3</sup> Since the world as a whole is a closed economy, the surpluses and deficits in the balances of payments of the nations must balance out. The surpluses of "surplus" countries *are* the deficits of the "deficit" countries. Recommendation 1 calls for the reconciliation in advance of

<sup>3</sup> This set of measures is designed to assist in the development of capital-poor countries.

the magnitude of the planned deficits of the "deficit" countries and of the planned surpluses of the "surplus" countries by appropriate internal adjustments.

This second recommendation is designed to implement the first one. The "surplus" or lending countries are asked to fix annual "targets" for long-term international investment for five-year periods and to guarantee that the investments will, in fact, be made. How can the governments of predominantly private enterprise economies do this? The Report recommends that their governments authorize the International Bank for Reconstruction and Development to borrow in their national capital markets the full difference between what their private investors actually invest abroad and the "target" amounts. The loans should bear the same rates of interest that the national governments pay on their long-term bonds. The International Bank would then make development loans to the *central governments* of the "deficit" countries at a uniform rate of interest one percent higher than the average rate at which it was able to obtain funds.

Under this plan the bulk of all future international lending would be from government to government via an international organization. The experts recognize and approve of this arrangement. Several reasons are given. The first is that stable and adequate international lending *must* get started if world chaos is to be avoided. The second is that the fear of foreign capitalistic exploitation is so great in the borrowing countries that they will not accept the terms which national governments or private investors would insist upon. The third reason is that the borrowing countries will be willing to give reasonable guarantees to an international organization and that the latter will thus be in a position to insist that the funds be used for purposes that ensure the ability of the borrowing countries to service the loans.<sup>4</sup>

**3. Measures for insulating a depression.** The last set of inter-

<sup>4</sup> This is obviously a proposal for political rather than economic lending and should be judged on this basis. The appraisal should not overlook (a) the probability that the plan, if actualism put into effect, would reduce drastically the volume of private international investment (why should a government that is guaranteed investment funds on extraordinarily favorable terms be concerned with creating the legal and social conditions needed to attract private profit-seeking capital?); (b) the bias in the plan in favor of state socialism in the borrowing countries; (c) the possibility that the people in the lending countries will refuse to make the requisite amount of capital available to enterprises abroad on the terms here proposed, terms which are more favorable than those on which their own private firms can get risk capital; and (d) the certainty that, if they refuse, the disappointed expectations aroused by the proposal will contribute to rather than check the spread of world chaos.

national measures is designed to prevent depression in one country from spreading to other countries. The underlying assumption here is that any country which undertakes to solve its internal difficulties by allowing its national price level to fall is guilty of pursuing the "beggar-thy-neighbor" policy to which reference was made earlier.<sup>5</sup> It is said to export its own unemployment and thereby defeat the domestic full-employment programs of its neighbors. Consequently these neighbors have a legitimate right to protect themselves unless the guilty country is willing to offer them adequate compensation.

The experts suggest two methods by which, singly or in combination, a country suffering from unemployment could make compensation. (a) The first method would be for the government to purchase foreign goods for stockpiling purposes. In this fashion it would carry out the commitment in its five-year balance of payments "target" regarding the level at which it planned to maintain its disbursements for imports. Stockpiling would suffice only if the decline in demand for imports was very slight, since there are only a restricted number of commodities suitable for stockpiling. The second method (b) is regarded as more promising. The guilty government would provide the national banks of the countries whose exports declined, as a result of its failure to maintain effective demand, with short-term credits equivalent to the amount of foreign exchange they would have earned had their exports not declined. In the language of the Report, the government of a country failing to maintain effective demand and hence full employment would commit itself to replenish "the monetary reserves of other countries, concurrently with, and to the extent of, the depletion of those reserves which result from an increase of its own reserves induced by a fall in its demand for imported goods and services."

The Report contains a number of valuable policy suggestions, but taken as a whole, it strikes many economists, including the writers, as completely unworkable and undesirable, whether regarded as a plan for predominantly socialistic or predominantly private enterprise economies. Professor Wilhelm Roepke, the eminent German economist now at the Graduate Institute of International Studies at Geneva, in his review of the Report has characterized it as "an illusion or a nightmare."

This sort of international collective planning [he writes] cannot be brought about by the free cooperation of democratic nations, since inter-

<sup>5</sup> See Chapter 26.

national planning presupposes an international state able to give and enforce its orders like a national state. Such an international state is utterly utopian and impractical. For, in order that the plan may work, it is necessary that it be a collectivist international state, whose inevitable centralism cannot tolerate any kind of international federalism. Yet everyone, including the socialists, agrees that an international federation is the only way in which, at best, we could hope for an international state in our lifetime. So much for the illusion.

International planning thus becomes possible only under the kind of international dictatorship which Hitler called "Grossraum." Then, however, it would be a nightmare, and surely for the authors of the U.N. Report no less than for all of us.<sup>6</sup>

Professor Jacob Viner of Princeton University concluded his masterly review of the Report with this devastating criticism.

I am fully and regretfully conscious of how unsympathetic my account of the Report has been. I would like to find concluding words which would soften the impact of what I have said above. Such words, however, would be empty or insincere. I have found myself in conflict with the values, the goals, as well as with the technical analysis in the report. Those who share the affection for or tolerance of a closely regulated society which I have found in the report, will rightly find much of my criticism of no weight or even perverse. I should say also in all fairness, that from the recommendations made by the authors, even more ardent individualists than I am can salvage a substantial number of ideas useful for the building of even their kind of a better world, and I have tried to take note of these as I went along. But there are many costs I would not be prepared to pay for "full employment" even if the alternative were failure to attain it by a significant margin—although I would have the unemployed generously taken care of. Mass unemployment *is* intolerable, but I believe it will be found possible to provide solid guarantees against its occurrence, on an international as well as on a domestic basis, by means which serve to strengthen rather than to undermine the foundations of what remains of a free market, free trade, free enterprise world.<sup>7</sup>

These criticisms seem to be valid. The Report appears to be based on the fallacious assumption that almost any type of unemployment can be cured by a little dose of inflation. The fact is that the plan would be workable only in a world in which there was reasonably complete factor mobility, and in such a world

<sup>6</sup> *The Economics of Full Employment: An Analysis of the U.N. Report on National and International Measures for Full Employment*, The American Enterprise Association, New York: 1952, p. 31.

<sup>7</sup> "Full Employment at Whatever Cost," in *The Quarterly Journal of Economics*, August, 1950, p. 407.

there would be no need for the elaborate and hopelessly complicated national and international planning devices developed so ingeniously in the Report.

*Questions:*

(In the questions which follow, the United Nations Report on *National and International Measures for Full Employment* will be referred to as the *UN Report*)

1. Identify and discuss critically the definition of unemployment used in the *UN Report*.
2. "The authors of the *UN Report* regard orthodox monetary policy as a much less reliable device for maintaining domestic full employment than fiscal policy.
  - (a) What do you understand by the terms orthodox monetary policy and fiscal policy as they appear in the statement above?
  - (b) Indicate with supporting reasons your agreement or disagreement with the statement.
  - (c) In the light of your knowledge of our social security program and our federal tax system indicate the changes in federal spending and taxing you think the authors of the *UN Report* would recommend in the event that unemployment in the United States rose above the target rate set forth in the Report.
3. Go through the summary of the *UN Report* point by point as it appears in the text and list the recommendations which you think Professor Viner would (a) approve and (b) disapprove.
4. Cite specific recommendations in the *UN Report* in support or in refutation of the charge made by the authors that the Report is based on the assumption that almost any kind of unemployment can be cured by a little dose of inflation.
5. Describe and critically evaluate the means by which the authors of the *UN Report* propose to bring about a stable flow of international investment funds from the wealthy to the poorer countries. What is the role assigned to the International Bank? Could it play this role under its present powers?



# *Epilogue*

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WE now have come to the end of our study of capitalism and of possible alternatives. In this final chapter we, the authors of this book, present our credo—our reflections as citizens on the policy implications of the analysis of the book. We know that some of you will not agree with all that we say. We recognize that the policy implications which we derive from the analysis are not the only ones that can be so derived. Moreover, it is the analysis itself, not the material of this chapter, which is necessary to economic understanding. At the same time we feel that the professional economist, as a citizen, has a responsibility to make known his position on the important issues of his day, to “stand up and be counted.” That is our purpose in writing this final chapter.

## **THE CREDO**

Capitalism admittedly is far from perfect; yet with all its faults it has brought a larger measure of material well being to more people than any other type of economic organization hitherto devised by man. Nonetheless its demonstrated productivity is not its principal virtue. Wherever it has been allowed to flourish it has given men something far more important than bath tubs, electric refrigerators, automobiles, and television sets. It has helped build the foundation on which individual freedom must rest. Because it requires freedom of choice it has necessarily promoted the kind of political environment in which men can choose and it is only as men are free to choose that they can be free and can grow in moral stature.

Private capitalism further protects this precious freedom of choice because it works against the most dangerous type of inequality—

inequality in the distribution of naked power. Developments of the last generation have convinced increasing numbers of thoughtful men and women that individual freedom depends on the diffusion of power and on the checks and balances which prevent strong and ruthless men and groups from tyrannizing over their fellows. It is becoming increasingly clear that private property and private competitive enterprise are indispensable devices for diffusing power and directing the enormous drive of self-interest into the production of goods and services. Some men will always seek power, but, under private capitalism, ambitious men are induced to seek it indirectly through service and through the material rewards that go with successful service, rather than directly through the mastery of the political apparatus of the State.

Nor does belief in the virtues of private enterprise imply opposition to all public interventions. In our discussion of the State we recognized that it is the duty of the State to provide the environment in which private enterprise must, in its own interest, serve the general interest. We stressed particularly the role of government as the agency for promoting knowledge and mobility and enforcing responsibility. The discharge of these functions opens up a wide arena for public action. The enforcement of the principle of responsibility, particularly in connection with multiple-purpose enterprises, further provides the State with an opportunity to improve the overall performance of the enterprise system by concentrating a part of its spending in periods when there is a slacking off of employment in the private sector of the economy. In this connection monetary policy can also be helpful. Finally we recognized that it is possible to devise social security measures consistent with the operating requirements of the private enterprise system which can have a further stabilizing influence and at the same time, reduce the human costs of (and hence the resistance to) the frequent and small adjustments that must take place if people are to retain their freedom of choice and enjoy the fruits of technological progress.

At this point our political credo merges with our economic credo. We favor private capitalism because it diffuses power. Similarly we favor the states and their subdivisions rather than the central government as the principal agencies for carrying out the economic functions of the State because they remain subject to the disciplines of interstate and interregional competition. Thus we would prefer to see the states and not Washington undertake the public works spending which can be justified by what we have called the principle of responsibility. As long as the responsibility for the dis-

charge of these functions remains at the state level, we do not have to worry about the fact that the exact magnitude of the indirect costs and the indirect benefits cannot be calculated in advance. The appropriate limits can be reached by the process of trial and error. Interstate competition will prevent a state from going too far just as it prevents a business firm from growing too large, or a trade union from exploiting the power which comes from control of the local labor supply.

As long as the area which gains the major share of the benefits of a public intervention has to meet the costs, there is no danger that a public intervention will be carried much beyond the point where costs and benefits balance. If popular pressures force a state government to go much beyond this point, retribution comes before any serious damage has been done to the national economy as a whole. The rise in the local tax burden puts local firms at a competitive disadvantage in interstate commerce. Contemplated expansions are abandoned; capital avoids the state; established firms migrate to more hospitable locations. As long as benefits and costs are kept in balance, none of these adverse consequences follows. The state is a better place in which to live and to do business. Taxes may be higher than in neighboring states, but there are also offsetting economies. Interstate competition does not prevent the states from using the police power to stop private activities that impose serious indirect and uncompensated losses upon their citizens; nor does it prevent them from subsidizing or carrying on multiple-purpose enterprises. All that it does is impose efficiency and moderation.

When central governments undertake to execute the functions which derive from the theory of indirect costs and indirect benefits, the compulsion for efficiency and moderation is dangerously weakened. People in local areas will urge projects of predominantly local interest which they would never think of supporting if the money had to come out of their own pockets. The well-known practice of "log-rolling" renders the elected representatives particularly vulnerable to this sort of pressure. If the resulting waste threatens to price the national economy out of world markets, the pressure groups call upon the government to raise tariffs, impose quotas, and provide export subsidies. If they threaten an undue increase of taxes, the pressure groups urge that the government borrow the money from the banking system.

Our own view, then, is that the survival of free and democratic societies may well depend on (1) the development of a widespread

popular conviction that peace, prosperity, and freedom depend upon the maintenance of a vigorous, competitive, and responsible private enterprise system; and (2) a revival of popular confidence in the capacity of local units of governments to cope with the problems which arise from the failure of market forces to handle situations involving large indirect costs or indirect benefits. "The Federal Government should be unencumbered in the discharge of its monstrous major duties by a lot of other jobs it need not do. The states and local government are the dikes we can build more strongly against the flood waters sweeping toward the District of Columbia."<sup>1</sup>

Does this mean that we are indifferent to great personal, regional, and international inequalities in levels of well being? Quite the contrary. We favor the institutions of private property and private enterprise precisely because we believe that a vigorous, responsible, and genuinely competitive private enterprise system works constantly, though slowly, to reduce precisely these types of inequality; and that it does this in a fashion which maximizes personal freedom of choice and which also maximizes, over time, the amount that can be divided. We believe that the solution of the problem of poverty is to be found through increasing production over time, rather than through a drastic equalization of the distribution of what is being produced at any particular period of time.

As far as personal income inequalities are concerned, we believe that they could be substantially reduced by a drastic limitation *on the amount of wealth any one individual could inherit*. In our judgment such a limitation on the power of bequest would not seriously reduce the extraordinary productivity of the private enterprise system, *provided* the State would, at the same time, remove the existing obstacles to the accumulation of wealth during a single lifetime. We do not regard this as a means of transferring wealth from the rich to the poor. The State would derive little or no revenues from the kind of inheritance tax we have in mind since the successful money maker would ordinarily distribute his accumulations widely on or before his death. Such a change would force all young people to start more nearly from scratch. The sons of successful money makers could continue to live in the style to which their fathers had accustomed them only as they were able to demonstrate that they had also inherited their fathers' capacities and their fathers' interest in money making. Such a change would pro-

<sup>1</sup> Quoted from a speech by Adlai E. Stevenson before the Illinois State Fair, August 14, 1952.

mote equality of opportunity, which is all that the State can safely undertake to guarantee, without unduly dulling the money-making incentive. This defense of money making sounds materialistic. On balance, however, it seems to us the most reliable device man has yet discovered for getting resources into the uses to which consumers wish them to be put.

As far as regional and international inequalities are concerned it seems to us that the remarkable development of the Old South over the last fifty years demonstrates the benefits that flow from free markets and free trade. If our national government, for example, would cease protecting the established industrial regions by a high minimum wage, by a protectionist interpretation of the wage clause in the Walsh-Healey Act, and if it would use its powers to enforce competition in the labor market so that firms in the less developed regions of the United States would not be forced to accept the wage rates which competition imposes on firms in the wealthy industrialized parts of the country, then the poorer states would attract far more in the way of private risk capital than the federal government gives them through equalizing grants-in-aid. The Southern states do not need federal aid. What they need, as do the people in all the states, is protection against federal paternalism.

What the so-called underdeveloped countries need more than American aid is an internal decision that they want the material comforts which modern methods of production make possible and a willingness to establish conditions that will induce foreign risk capital and know-how to assist them in the modernization of their economies. Most of them have natural resources which the outside world needs and which can be exploited so economically with modern equipment that their governments can secure through taxation the funds needed to finance roads, education, and health services. If they will set their own houses in order and if the wealthy countries will open up their own internal markets, there is no reason to doubt that they can secure private capital as rapidly as they are able to demonstrate their capacity to use it effectively.

Finally we wish to go on record as believing that private property and competitive private enterprise are not just fair weather gadgets to be put in mothballs in rough weather. Quite the contrary. It is precisely at such times that a free society needs the drives and the flexible guidance which competitive markets automatically provide. Authoritative central planning is necessarily inflexible and wasteful.

Waste and inflexibility are luxuries which a society can least afford when it is confronted with a great emergency.

What the world urgently needs today is a leveling of the internal and external barriers to trade and commerce and a release of the enormous productive energies latent in all societies and their direction through "free markets, free trade, and free enterprise" toward the material and spiritual betterment of mankind throughout the world.

# Appendix A:

## *The National Accounts*

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THE term, *accounting*, standing alone, refers to the keeping of records by single firms or institutions. The records describe in money terms the position of the firms or institutions with respect to (a) economic goods and services and (b) their financial relationships with other firms, institutions, and persons. In *social accounting*, the dollar facts about a single firm or institution are combined with the dollar facts about other firms and institutions. The sums so obtained represent the accounts of the nation viewed as one large firm or, alternately, as one large household.

This sounds simple enough; just sum the individual accounts and you have the national accounts. In practice, social accounting is a very complex process. Such conceptual problems as what constitutes income, what data should be added to what other data, what steps must be taken to avoid double counting, etc., call for the combined skills of the accountant and the economist. Problems of estimates and computations call for the skills of the statistician. The social accountant must also be thoroughly aware of the sources and quality of the data with which he must work. All that we can hope to do here is to present an elementary survey of the subject and to suggest the nature of some of the more difficult questions that arise.

### SOCIAL ACCOUNTING IN A SIMPLIFIED HYPOTHETICAL SOCIETY

We shall begin our investigation with a description of the process of social accounting for a much simplified hypothetical society. In this way we shall be able to isolate and identify the basic concepts and tools of social accounting before we tackle the confusing and complex data which are the raw materials of social accounting in our own, very real society.

We shall group all of the economic units in our society into three divisions, or *sectors*: the Persons Sector, the Business Sector, and the Gov-

ernment Sector. *The Persons Sector* embraces a total population of 1,000 persons, grouped into 300 households, or consuming units. We shall assume that the work force is made up of 400 of these 1,000 people. Some of the households own the homes they occupy, others rent them. *The Business Sector* is composed of just four firms. Almost all of the activities of the society connected with making a living are in the hands of these four firms. *The Government Sector* represents all units of government, from local to national.

**The social wealth.** The four firms composing the Business Sector are: Firm E engaged in *extraction* (mining, farming, oil, timber, etc.); Firm F engaged in *fabricating* the raw materials which are the finished products of Firm E; Firm S engaged in furnishing *services* (public utilities, transportation, banking and insurance, barbering, laundering, theater, music, etc.); and Firm D engaged in the wholesale and retail *distribution* of goods.

Firm E sells only to Firm F; Firm F sells to all other Firms, even to itself in the sense that it uses products it fabricates in further fabrication; Firm S sells to Firms E, F, and D, but not to itself, and it also sells to or serves the consuming public; and, lastly, Firm D sells only to consumers since it handles only final goods. The society has no foreign relations. We assume an accounting period of one year.

*Initial equipment—the sector inventories.* In order to account for the economic affairs of a single business enterprise or of a whole society it is necessary first to select and establish a starting point. Single business enterprises and whole societies are *going concerns* and their economic affairs flow continuously through time. A fiscal period (usually a calendar year) is an interval of time in the life of a single enterprise or of a whole society to which it is natural and convenient to relate statistical measurements of its economic and financial affairs. A fiscal period has two points of time as its boundaries, say January 1 and December 31, the beginning and the ending points; and the ending point of one fiscal year is the beginning point of the next one.

Our procedure in what follows, accordingly, will be to assume beginning inventories for each of the six economic units in our hypothetical society: Persons; the four Firms E, F, S, and D; and Government. The beginning inventory of Persons is a combination or consolidation of the separate inventories of the 300 households. The inventories of the four Firms will first be shown separately and then consolidated into a single beginning inventory for the Business Sector. The inventory for the Government Sector is already a consolidation of the inventories of the separate units of Government.

The final step will be to consolidate the three *sector* inventories into a single beginning inventory for the whole society. This final single inventory, which is a consolidation of consolidations, is the *National Wealth*, as of that moment of time.

PERSONS—BEGINNING INVENTORY

Cash .....	\$ 100
Short-lived goods .....	250
Durable goods .....	600
Real estate and buildings.....	3,000
Government bonds .....	1,000
Capital stock of Firms .....	<u>2,200</u>
Total .....	<u>\$7,150</u>
Deduct: Mortgage loans .....	
Due to Firms	\$500
S and D .....	<u>50</u>
Total debts .....	<u>550</u>
Net worth .....	<u><u>\$6,600</u></u>

The item “Real estate and buildings” includes all land and houses as well as the business buildings of the four Firms. We assume that the mortgage loans are owed to Firm S, which has a banking and insurance department. The debts to Firms S and D are for groceries, clothes, furniture, light, telephone, medical services, and the like. Certain persons own the capital shares of the Firms and the Government bonds.

*Balance Sheets of Firms.* Accountants in real life present the inventories of business firms in the form of *balance sheets*. The *inventory* in social accounting differs from the *balance sheet* in business accounting only in arrangement of items. In a balance sheet the *debts* are displayed in opposition to goods instead of being subtracted from them as in the inventory of Persons just presented. We now present the beginning inventories of the four Firms set out in the form of balance sheets.

FIRM E—BEGINNING BALANCE SHEET

<i>Assets</i>	<i>Equities</i>
Cash .....	Capital stock .....
Due from Firm F .....	(Stockholders)
Supplies .....	\$400
Fixed Assets .....	
<u>\$400</u>	<u>\$400</u>
<u><u>\$400</u></u>	<u><u>\$400</u></u>

FIRM F—BEGINNING BALANCE SHEET

Cash .....	Account due to Firm E .....
Supplies .....	Capital stock .....
Fixed Assets .....	(Stockholders)
<u>\$50</u>	\$ 50
<u>200</u>	600
<u>400</u>	
<u><u>\$650</u></u>	<u><u>\$650</u></u>

## FIRM S—BEGINNING BALANCE SHEET

Cash .....	\$200	Capital stock .....	\$900
Due from Persons .....	20	(Stockholders)	
Mortgage loans .....	500		
Supplies .....	30		
Fixed assets .....	150		
	<u>\$900</u>		<u>\$900</u>

## FIRM D—BEGINNING BALANCE SHEET

Cash .....	\$ 20	Capital Stock .....	\$300
Due from Persons .....	30	(Stockholders)	
Supplies .....	210		
Fixed assets .....	40		
	<u>\$300</u>		<u>\$300</u>

Before going any further we need to explain the balance sheet form. Every business enterprise and every consuming unit can make a list of its possessions as Crusoe did. In business these possessions are called *assets*. But to a business firm “assets” include more than useful economic goods themselves; they include *claims* against persons or other firms as well. For example, Firm E counts as one of its assets an amount of \$50 which Firm F owes it; Firms S and D count as assets the loans and other amounts owing to them by Persons. But it is obvious that Firm E’s claim against Firm F is a two-faced affair, so to speak; that is, to Firm F it is a *liability* or *debt*.

By conventional practice assets appear on the *left* side of balance sheets. The *right* side of each of the four balance sheets has been labeled *equities*. The word *equities* as used here means claims in a business sense. There are two general classes of claims against a business firm: those of outsiders, called *debts*, and those of *owners*. The total assets of Firm F, for example, are \$650, and the claimants to these assets are (a) Firm E, a creditor in the amount of \$50, and (b) the *owners* or stockholders, all Persons, in the amount of the remainder or \$600. Creditor claims are always senior claims, ownership claims junior claims; one must satisfy his creditors first. Thus the equities list represents nothing but relationships with other firms and with persons as the owners or shareholders.

The beginning inventory for Persons, on the other hand, listed the assets first (including the stock claims of Persons against all four Firms) and then *subtracted* debts of Persons to Firms, reaching a residual figure which is here called “net worth.” This is exactly the same information as that shown in the balance sheets but it is not in balance sheet *form*. The net worth is owners’ claims just as in balance sheets, but the owners in this case are the Persons themselves.

*Consolidation of balance sheets of firms and persons.* We are now ready to derive, by consolidating the five beginning inventories, the single beginning inventory of two of the three sectors of our hypothetical society: Persons and Business. This consolidated beginning inventory is still not the National Wealth, however, for the Government has yet to be added. This last step will be taken separately.

The consolidation consists first of rewriting all items on all five balance sheets (we shall arrange the Persons' statement in balance sheet form, too, so that it will fit the layout better) in one big balance sheet, doing some combining as we go. Cash, for example, occurs on all of them, and we can add the amounts together before we write it. The order of items is simply hit or miss. The + -marks represent cancellations; an explanation of them follows the tabulation.

## CONSOLIDATED BALANCE SHEETS, PERSONS AND FIRMS

<i>Assets</i>		<i>Equities</i>	
Cash	\$ 400	Mortgage loans	+ -3 \$ 500
Short-lived goods	250	Due to Firms S, D	+ -2 50
Durable goods	600	Net Worth, Persons	6,600
Real Estate, buildings	3,000	Capital Stock Firm E	+ -4 400
Government bonds	1,000	Capital Stock Firm F	+ -4 600
Stock of Firms	+ -4 2,200	Capital Stock Firm S	+ -4 900
Due from Firm F	+ -1 50	Capital Stock Firm D	+ -4 300
Supplies	510	Account due to Firm E	+ -1 50
Fixed assets	840		
Due from Persons	+ -2 50		
Mortgage loans	+ -3 500		
	<u>\$9,400</u>		<u>\$9,400</u>

Next we cancel all the internal or "intramural" claims. Take the \$50 owed by Firm F to Firm E: On the *separate* balance sheet of each Firm the item appears as an asset on one and as a debt on the other; but if the two firms go together, the item simply disappears. Separately, it was necessary for each to show its relationship with the other; combined, there is no relationship to record—they are one. We have marked all such matching cancellations with + 's (the + meaning "strike it out") numbered as in the following list.

- (1) Debt owed by Firm F to Firm E, \$50.
- (2) Debts owed by Persons to Firms S and D, \$50.
- (3) Mortgage loans owed by Persons to Firm S, \$500.
- (4) Stock ownership claims of Persons against all four Firms, \$2,200.

These eliminations reduce the totals from \$9,400 to \$6,600; cancella-

tions totaled \$2,800. The whole operation illustrates the principle that social accounting loses or buries the dollar facts about single firms by combining them in masses with dollar facts about all firms.

We now rewrite the items *not* cancelled, in more logical order, with short-lived and durable consumers' goods put together, and with more conventional social accounting captions. Since all items on the right side are cancelled, excepting only net worth of Persons, we shall not even bother to make a balance sheet form, but merely an inventory list.

PERSONS AND BUSINESS—CONSOLIDATED INVENTORY

Cash .....	\$ 400
Government bonds .....	1,000
Consumers' goods .....	850
Business inventories .....	510
Machinery and equipment .....	840
Real estate and buildings .....	<u>3,000</u>
Total .....	<u>\$6,600</u>

*The government sector.* As the last step needed to reach our main objective, the tabulation of the wealth of the whole society, we present now a separate balance sheet of the Government. The Government too has assets and equities peculiar to itself; and it too is a part of the society.

BALANCE SHEET—GOVERNMENT

Gold and silver hoards .....	\$150	Cash outstanding .....	\$ 400
Public lands, forests and buildings .....	500	Government bonds outstanding .....	1,000
	<u>\$650</u>		<u>\$1,400</u>

This balance sheet of the Government is unusual because it is not in balance. Since debts exceed assets the result is a sort of negative net worth, which could be written in as a *Deficit* of \$750 on the left side to force a technical equilibrium. Cash, we might remark here, is supposed in this problem to represent only paper money and subsidiary coins. Hence the cash cancels in the consolidation.

We now consolidate the Government with all the rest of the society already consolidated. The pattern is the same as before: Government's debts both disappear, the paper money debt cancelling the cash now in the consolidated inventory of Persons and Business, and the long-term debt cancelling Persons' bond investments. The hoard of precious metals and the public lands go into the list, and so we now arrive finally at the inventory of the

NATIONAL WEALTH OF HYPOTHETICAL SOCIETY

Consumers' goods .....	\$ 850
Gold and silver hoard .....	150
Business inventories .....	510
Machinery and equipment .....	840
Real estate and buildings .....	3,500
	<u>\$5,850</u>

This final total of national wealth is \$750 smaller than the consolidated inventory of Persons and Business; and this \$750 is, or represents, the government deficit. Taken by *itself* Government appeared to be insolvent; the society as a *whole*, however, is not insolvent.

**The social income.** We are now ready to examine the production, consumption, and income accounts of our same hypothetical society. We shall continue to keep our original assumption of isolation—that is, no foreign relations.

*Income statements.* We shall begin the study of national or social income with income and expense accounts. Single business enterprises in the modern world summarize the operating statistics of their accounting periods in a financial statement often called a Profit and Loss Statement or an Income Statement. A typical example of such a statement, much condensed, might look like this:

Sales .....	\$1,000
Less—Purchases of goods ...	\$700
Rent .....	20
Salaries and wages....	170
Other operating	
expenses .....	60
Net Income .....	<u>\$ 50</u>
Less distributions	
Interest to lenders..	10
Profits to owners ...	<u>40</u>
	<u>50</u>

In the technical left-right or debit-credit form equivalent to the balance sheet, these same facts might be displayed thus: . . .

TECHNICAL FORM OF INCOME ACCOUNT FOR A FIRM

Year Ended December 31, 195-

Purchases of goods .....	\$ 700	Sales .....	\$1,000
Operating expense .....	60		
Wages .....	170		
Rent .....	20		
Interest .....	10		
Profits .....	40		
	<u>\$1,000</u>		<u>\$1,000</u>

We need to stress particularly an important difference between the concepts which lie behind the figures in a tabulation like the foregoing and those which lie behind the figures in a balance sheet. An *asset* figure, say merchandise or cash in a retail store, represents the money value of a real thing which is in the store's possession at a moment of time; but the figures for purchases and sales in the tabulation above are *statistical magnitudes* only and tell nothing about the amount of *merchandise on hand* at any time. These statistical magnitudes imply a *flow* of time, an *elapsed period* of time. So wages and rent too, though they were presumably paid in cash, are historical totals for a year of different classes of payments, telling nothing about the amount of cash in the possession of either the company or the wage-worker at any moment.

*Separate income accounts of the four Firms.* Coming again now to our hypothetical society, we present below an assumed income account for each of the four Firms which attend to all the business of the society: extraction, manufacturing, services, and distribution. These will all be in the left-right technical form and in equilibrium as to totals, in order to facilitate the consolidation which we shall demonstrate later. All are for the year following the beginning positions given.

## FIRM E—INCOME ACCOUNT

Goods from Firm F.....	\$ 100	Sales to Firm F.....	\$1,075
Services from Firm S.....	100		
Wages .....	750		
Rent .....	75		
Interest and profits.....	50		
	<u>\$1,075</u>		<u>\$1,075</u>

## FIRM F—INCOME ACCOUNT

Raw materials from Firm E.	\$1,075	Sales to Firm E .....	\$ 100
Own goods used .....	200	Sales to self (contra).....	200
Services from Firm S .....	200	Sales to Firm S.....	50
Wages .....	1,060	Sales to Firm D.....	2,275
Rent .....	50	Sales to Government .....	60
Interest and profits .....	100		
	<u>\$2,685</u>		<u>\$2,685</u>

## FIRM S—INCOME ACCOUNT

Goods from Firm F.....	\$ 50	Sales to Firm E.....	\$ 100
Wages and fees.....	900	Sales to Firm F.....	200
Rent .....	30	Sales to Firm D.....	50
Interest and profits.....	60	Sales to Government.....	15
		Sales to Persons .....	675
	<u>\$1,040</u>		<u>\$1,040</u>

FIRM D—INCOME ACCOUNT

Final goods from Firm F... \$2,275	Sales to Persons..... \$2,825
Services from Firm S..... 50	
Wages ..... 350	
Rent ..... 50	
Interest and profits..... 100	
\$2,825	\$2,825

Some interesting points can be observed from this layout. For example, consider Firm E, the extractive industry. It has combined the services of its working force (wages), certain manufactured supplies bought from Firm F (dynamite for quarries and mines, fertilizer for the farms), outside services furnished by Firm S (electricity, gas, legal advice), the use of the land and buildings permitted by the landlord for his rent, and the use of long-lived capital equipment permitted by the lenders and shareholders for their returns in interest and profits: it has combined these five items, we repeat, into a batch of finished raw materials which it has passed on to Firm F. Put in a different way, Firm E has built up these five categories of *costs* into a "stockpile" of \$1,075 worth of finished raw materials; and when Firm F takes over these raw materials it reimburses Firm E for all the costs so that the latter can start on another cycle of operations.

Firm F, starting with the \$1,075 of costs taken over from Firm E, adds some more, piling up the values in turn to \$2,685 which it passes on to others or consumes itself, receiving its reimbursements in due course as Firm E did. In the meantime Firm S, standing on one side, so to speak, feeds into the mainstream of production another batch of costs, although the bulk of its services go to Persons. Firm D then takes over the main pile-up of accumulated costs and adds its contribution to the total, which it then delivers to Persons in the form of final goods.

The Persons section of the economy, last stage and ultimate objective of the whole operation, buys the final goods, reimbursing every firm for all costs incurred all the way down the line from the beginning. In doing this, Persons use for the purpose the very incomes they have themselves received in the process. It is true that Government is also a final consumer of some of the products of Firm F and some of the services of Firm S; but at the moment we shall continue to maintain our point that Persons ultimately reimburse *all* costs to Firms, because Persons pay out of their incomes the taxes which Government uses to buy goods and services. We shall postpone further discussion of this interesting point, since we shall have occasion to return to it later.

*The Consolidated Business Income Account.* We are now ready to proceed with the consolidation of Income Accounts for which we have been preparing. Let us first rewrite as if in a single Income Account

every item of the four Income Accounts of the Firms. The +’s mark the cancellations to be made and a key to them follows the tabulation.

## FOUR FIRMS—INCOME ACCOUNTS

<i>Firm E</i>			<i>Firm E</i>		
Goods from Firm F	+ -2	\$ 100	Sales to Firm F...	+ -1	\$1,075
Services Firm S...	+ -6	100	<i>Firm F</i>		
Wages .....		750	Sales to Firm E...	+ -2	100
Rent .....		75	Sales to self.....	+ -3	200
Interest and profits		50	Sales to Firm S...	+ -4	50
<i>Firm F</i>			Sales to Firm D...	+ -5	2,275
Goods from Firm E	+ -1	1,075	Sales to Gov't....		60
Goods from self..	+ -3	200	<i>Firm S</i>		
Services Firm S...	+ -7	200	Sales to Firm E...	+ -6	100
Wages .....		1,060	Sales to Firm F...	+ -7	200
Rent .....		50	Sales to Firm D...	+ -8	50
Interest and profits		100	Sales to Gov't....		15
<i>Firm S</i>			Sales to Persons...		675
Goods from Firm F	+ -4	50	<i>Firm D</i>		
Wages and fees...		900	Sales to Persons...		2,825
Rent .....		30			
Interest and profits		60			
<i>Firm D</i>					
Goods from Firm F	+ -5	2,275			
Services Firm S...	+ -8	50			
Wages .....		350			
Rent .....		50			
Interest and profits		100			
Total costs .....		\$7,625	Total sales .....		\$7,625

The cancellations again apply to the “intramural” pairs representing all transactions *between* firms in the group, leaving uncanceled only those transactions with Persons and Government *outside* the business group. Transactions between Firms are two-faced transactions, that is to say, a cost to one firm and a revenue to another. The key follows:

- (1) Sales Firm E to Firm F (\$1,075)
- (2) Sales Firm F to Firm E (\$100)
- (3) Goods fabricated by Firm F used by itself (\$200)
- (4) Sales Firm F to Firm S (\$50)
- (5) Sales Firm F to Firm D (\$2,275)
- (6) Sales Firm S to Firm E (\$100)
- (7) Sales Firm S to Firm F (\$200)
- (8) Sales Firm S to Firm D (\$50)

You notice quickly that only wages, rent, interest, and profits remain uncanceled on the cost side, and only sales to Government and Persons remain uncanceled on the revenue or sales side. We now rewrite the *uncanceled* items, combining all wages and other like items on both sides. This gives us the

## CONSOLIDATED BUSINESS INCOME AND PRODUCT ACCOUNT

Wages .....	\$3,060	Sales to Government.....	\$ 75
Rent .....	205	Sales to Persons .....	3,500
Interest and profits .....	310		
	<u>\$3,575</u>		<u>\$3,575</u>

This consolidated business income account marks the second step in building up the social accounting system of our hypothetical isolated society. (The first step was the establishment of the amount of the national wealth to begin with.) From this Business Account (we shall from now on call it the Business Account for short) we draw four tentative conclusions:

- (1) that the production or product or output of the four Firms was \$3,575;
- (2) that the factor cost of that product was \$3,575 (factor land \$205, factor labor \$3,060, factor capital \$310);
- (3) that the *market* value of the product was \$3,575 since it was sold for \$3,575; and
- (4) that the income of the population which was derived from or generated by its industries and commercial firms was also \$3,575.

**Interim Conclusions.** Before proceeding to the next step we would like to make a summary comment on the results obtained so far. If you will think of the four Firms as if they were four stages in a giant assembly line (each Firm by itself being a culminating point for numbers of sub-assembly lines), you can perhaps imagine the whole of the business part of society discharging final goods and services as if on a loading dock, whence they are sold and carried off into consumption. The sale and delivery of the final goods and services to the consumers constitute the grand objective of the whole process. One cannot see this by looking at the income account of a single firm; it becomes visible only after the consolidation of all the firms has been completed—total sales of final goods and services, \$3,575. The objective of each firm is to get its own special part of the work done, move out the goods, and realize its profit. The people who work for any one firm are not concerned with the question whether they are making and selling *intermediate* goods or *final* goods. The keenest planning and management of which the men who own and run any one firm are capable are directed toward the making and sale of its own product only; and the business accounting system of each firm measures the results.

Social accountants, however, are not trying to make money for any firm; they are not working, as the business accountants are, as an accessory department to a management which is planning and running the whole economy of a nation. Their interest is scientific, intellectual, abstract; it is like the interest felt by the economist, the political scientist, and the sociologist. Finding that the total sales of all the Firms in the society are \$7,625, they want to know how much of the sum represents mere interior pyramiding, so to speak, and how much was the net final output—the grand objective—the goods and services for consumption. The consolidation of the income accounts of all the Firms gives the answer, \$3,575, which at one and the same time represents output, factor cost of output, market value of output, and income. The cancellations represent the *intermediate* goods and services, whose values, as they disappear, pass over into the *final* goods and services.

We have already summarized this output by factor costs, and we now re-summarize it in the form of a tabulation of *Net Values Added* by Firms. Any single firm necessarily considers that *all* its expenditures except its profits are costs or values created by it; but, as social accountants viewing simultaneously all the income accounts, we shall consider that the values added by each firm consist only of its expenditures for wages, rent, interest-and-profits, all other values having been added by some other firm or firms.

BUSINESS OUTPUT—VALUES ADDED BY FIRMS

Beginning .....	\$ 0
Firm E .....	875
Firm F .....	1,210
Firm S .....	990
Firm D .....	500
	<u>\$3,575</u>

Necessarily we arrive again at the same total output as before, compiled this time by factor costs incurred within each firm. The results of all the maneuvering can now be crystallized, for this period and for these four Firms only, into the following compound or multiple equation:

Business Output = Factor Costs = Values Added = Income Created

*The accounts for other sectors.* The Consolidated Business Income and Product Account so far developed, however, is not the whole of the society; it does not even show all of the *business* affairs of the society. We have yet to add income accounts for the other two sectors of the economy, Persons and Government, corresponding to the Balance Sheets for these two sectors. We already have partial data for Persons and Government in the Business Account, and some new data must be added. Each of the two new accounts will be in the same technical two-sided form as the accounts for Firms, that is, each will have expenditures-

costs on the left side and receipts-revenue-income items on the right side. (The reader may wish to write out a set of accounts on scratch paper in order to follow and to verify what we do.) With the Consolidated Business Income Account before us, then, we build up the Persons Account and the Government Account by taking the following steps, which we shall index by letter.

(a) We enter on the *right* side of Persons Account the three items which already appear on the *left* side of Business Account. By so doing we recognize that what is *factor cost expenditures* to the Business subdivision of the economy is *income* to the Persons subdivision.

(b) We enter on the *left* side of Persons Account the sales of \$3,500 to them, and on the *left* side of Government the \$75 of sales to it, which already appear on the *right* side of Business Account. Thus we recognize that what is sales from the standpoint of business is purchases to the customers at the other end. At this point every statistical magnitude we have is one of a pair and appears twice. Since all our figures are totals of like transactions, and since every transaction involves two parties, one paying and the other receiving, every figure *must* appear in two places, either on one side of one account and on the opposite side of some other account, or on both sides of the same account like the \$200 of goods made by Firm F and "sold to" itself. Thus we make our record by a double-entry bookkeeping system. The remaining data, which we shall assume to represent a few other specimen types of transactions, will follow the same pattern and be entered twice.

(c) Taxes (direct ones like federal income and local property taxes) paid by Persons to Government, \$700. This, of course, is an expenditure by Persons and a revenue item to Government and should be so entered (We are intentionally leaving out other taxes which Business and Persons would presumably pay; these will appear at a later stage. As a matter of fact, Business in our hypothetical society has at present no money to pay taxes with!)

(d) Government payrolls are \$590 (civil servants, teachers, etc.). This is recognized as an expenditure to Government and an item of income to Persons. Note also that it is a factor cost to the society of services furnished by Government.

(e) The Government pays \$30 interest on its \$1,000 of outstanding bonds, and this again is expenditure of Government and income of Persons.

(f) A third payment which follows the same pattern is \$5 of old-age pensions and unemployment benefits paid to Persons.

(g) Many of the persons in society rent the houses they occupy, but many own them. The item of rent income which already appears on the right side of Persons Account represents what was received by the owners of business buildings and land. Now, of course, the owners of *rented* dwellings would receive the additional cash rent from their tenants and would certainly count it as much a part of their personal in-

comes as the rent received from industry. But we can scarcely count as social income only the cash rent of the owners of *tenant-occupied* houses without *estimating* the rental value of *owner-occupied* houses; to do so would not be consistent. The use and occupancy of dwelling houses either *is* social income or is *not* social income; and if it *is*, all houses must be treated alike. We therefore enter \$45 on *both sides* of Persons Account to represent the sum of the *explicit* rent paid and received in cash (\$25) and the *implicit* rent paid by each owner of the house he lives in to himself, so to speak (\$20).

(h) A final item is similar to (g) and is well exemplified by the case of eggs, chickens, and vegetables raised on farms (and hence clearly part of social product) and consumed there or at near-by church suppers (hence clearly a part of social income) without ever being bought or sold in any market. Suppose we put in \$1 on each side of Persons Account to represent this kind of economic happening.

We now present the three "social accounts" as they stand at this point, where we shall leave them. The Business Account has not been changed by the additions in the series (a) to (h) but will be repeated so that we can look at them all together.

## BUSINESS ACCOUNT

Wages .....	\$3,060	Sales to Persons .....	\$3,500
Rent .....	205	Sales to Government .....	75
Interest and profits .....	310		
Factor costs .....	<u>\$3,575</u>	Final goods to consumers..	<u>\$3,575</u>

## PERSONS ACCOUNT

(b) Purchases from Business	\$3,500	(a) Wages from Business..	\$3,060
(c) Taxes to Government...	700	(d) Wages from Gov't.....	590
(g) Rent to Persons.....	45	(a) Rent from Business....	205
(h) "Wages-in-kind" .....	1	(g) Rent from houses.....	45
(nonmarket output)		(a) Interest and profits, Bus.	310
		(e) Interest from Gov't....	30
		(f) Pensions and benefits ..	5
		(h) "Income-in-kind" .....	1
	<u>\$4,246</u>	Total personal income..	<u>\$4,246</u>

## GOVERNMENT ACCOUNT

(b) Purchases from Business \$	75	(c) Taxes received .....	\$ 700
(d) Wages .....	590		
(e) Interest on bonds.....	30		
(f) Pensions and benefits...	5		
Total expenditures ...	<u>\$ 700</u>	Total receipts .....	<u>\$ 700</u>

*The question of definitions.* What inferences can we now draw from our social accounts? Suppose we tackle the concept *Income* first. Regarding this hypothetical society as a nation, how much (in dollars) is its *national income*? For a starter we might argue that the total of the right side of Persons Account, \$4,246, is the best measure, because in a society which uses money and defines income to be money received as compensation for personal services (wages and salaries) plus money received as compensation for the use of privately owned capital and land, all one has to do is to add up everybody's personal incomes and one has it. But instantly somebody points out that there are at least two items in the \$4,246 which are not in money at all, viz., (a) the part (\$20) of the \$45 rent of houses which represents imputed rent of houses occupied by their owners and the \$1 of income in kind.

Someone else now argues that the interest received by Persons on their Government bonds, and the old-age pensions and unemployment benefits (\$30 and \$5 respectively), ought to be eliminated since they were paid out of taxes by the Government, which took the tax money away from Persons in the first place and now is just handing some of it back to them. He calls that double-counting.

One gets into the same kind of difficulties if he tackles the concept of *social output* or *gross national product*. Without even attempting to define output everybody would agree that the market value (and factor cost) of final goods and services made available by Firms is at least part of it. This magnitude can be read from either side of Business Account and is \$3,575. Certainly also the \$1 estimated value of food produced and consumed which never got on the markets is output (though, of course, one could define output in such a way as to exclude it). Dwelling houses themselves would be output in the period in which they were built, but in that event we cannot count the *rent* of them, explicit or implicit, as product. What about Government services, then? The Government clearly provides many services from which Persons benefit; but what figure shall we use—the entire cost of them as in Business (\$700), or factor cost (wages \$590 and interest \$30), or wages only? It is a question of definitions.

This discussion need not be pursued any further, and we shall abandon our hypothetical society forthwith. The record is not complete anyhow. We have not said a word about savings-investment or about their opposites, losses and exhaustion of the society's past savings.

Nevertheless, we have carried out our intentions. Our purposes in the discussion and demonstrations of the Simplified Hypothetical Society were:

- (1) to establish the technique of consolidation of business balance sheets and income accounts, a technique which is basic to social accounting;
- (2) to illustrate the double-entry method of recording available data

- in the real world to build up the principal statistical magnitudes of national income accounting; and
- (3) to settle the meaning of certain expressions which occur in the literature, such as *national wealth*, *factor costs*, and *value added*. (But the meaning of certain other expressions remains yet to be settled.)
- We come now to social accounting in real life.

### SOCIAL ACCOUNTING IN THE REAL WORLD

To put it broadly, the procedure in the real world for finding dollar statistical aggregates (we have been calling these "magnitudes") to represent, say, the national income of the United States for a certain year, or its gross or net national product, or its savings-investment and so forth is as follows: Take the many and various statistical series that are actually available from different sources; consolidate them, juggle them, make corrections in them, then enter them in a series of social accounts by the double-entry method we are now familiar with. Then establish consistent definitions for the various aggregates to be accumulated, and accumulate them. It does not sound too difficult, but we have already found that it is difficult and confusing.

**Preliminary Comments.** A *statistical series* is any set of numbers, regularly gathered by somebody, which represents the sum for any period (the day, week, month, or year) of any type of like occurrences which happen more or less all the time. There are many statistical series having nothing to do with social accounting; but, of course, the social accountants are concerned with the economic series. Enormous masses of such economic statistics are available. They are found in the back pages of the metropolitan newspapers (as bank clearings), in the United States Census reports, in publications of government departments, etc. The best way to get an impression of the kind and variety of available statistics about the business goings-on in this country and in the world is to glance through a World Almanac, a Census Report, a Federal Reserve Bulletin, or an issue of *The Survey of Current Business* of the United States Department of Commerce. In spite of what is available, however, the statisticians are still not able to find all they want, or to find it in a usable form. One sees footnotes in the social accounting documents to the effect that something which should be included, for instance, in national income is "omitted for lack of data."

One difficulty constantly encountered is "statistical lag." Federal income tax returns furnish an important mass of basic data about the total incomes, and the kinds of income, of almost all the grown-up population of the nation; but when will the summaries of this information be available? The final returns for a given year are not even made until March 15th of the following year, and many months of checking and preparation of proofs, reports, refunds and so forth must follow before the

handling staff can even begin on mere statistics. Thus data needed will scarcely be available for another year, and corrections and refinements and various breakdowns may take another year or so.

What we intend to do in this section is to make a list of the actual numerical data for the United States for the year 1939, with explanations where desirable; to post these data by the double-entry system already demonstrated to a set of social accounts similar to those of the hypothetical society of the preceding section; and finally to extract or build up from these social accounts the statistical aggregates which are the objective of the whole proceeding. The data for the transactions to be entered, the accounts and entries themselves, and the aggregates, all come from a *National Income Supplement* of July 1947 to *The Survey of Current Business* of the United States Department of Commerce, to which the reader is referred for more details than can be included here. The same data also appeared in another *Supplement* in 1951. We shall naturally use the definitions formulated by the statisticians of the Department of Commerce, recognizing as they do that there is not complete agreement among the experts on all details of the definitions.

Since some of the entries in the presentation in the *Supplement* are too technical for the scope of our own exposition, we propose to combine and telescope some of them in various ways without explanation. We propose also to take some liberties with the technical language used in our source in the interests of making it more comprehensible to the beginner.

There are five accounts instead of the three: Government, Business, and Persons, plus a Foreign Account and a National Wealth Account. The Foreign Account will contain a half of every double-entry, summarizing like transactions (such as exports and imports) between persons, firms, or the government of *this* country and the total of persons, firms, or the governments of the rest of the world. This Foreign Account must be visualized as a consolidation of many single foreign-nation accounts just as the Business Account of p. 704 was a consolidation of the income accounts of the four Firms.

We propose to differ from the Department of Commerce in our presentation and handling of the fifth account used in its *Supplements*. The account is the *beginning inventory or balance sheet* of the United States; it is the *National Wealth*, with the assets or wealth on the left and the debts and the net worth on the right. In the preceding section when we arrived at the statement of national wealth after consolidating the separate balance sheets of Firms, Persons, and Government, we presented it as a one-sided statement. In the present section, however, we need to present the national wealth in the full two-sided form like an account. There is now another excellent reason for doing this which was not present in the hypothetical society, that is, the fact that we are now accounting for *foreign transactions* as well as domestic ones; and so we shall be obliged to recognize both debtor and creditor relation-

ships with foreign countries in the National Wealth Account. In the hypothetical society there were no foreign debtor and creditor relationships, and all internal debtor-creditor relationships vanished in the consolidations, so that there were no debts.

Since not enough dollar valuations of the nation's assets are available from which to build up reasonably complete and reliable aggregates for the national wealth (the experts have been working on this problem), we are forced to use either no figures or imaginary ones for the initial position, which, you remember, has been marked as representing the whole of past savings-investment goods that are still on hand. We prefer to use no figures at all rather than imaginary ones. The main concern is the accounting period 1939 anyway, and the *changes* in national wealth, debts, and net worth will be available even though the *beginning* and *ending totals* are not.

The old three of the five accounts follow the same pattern as hitherto, with costs-expenditures on the left sides and revenue-income-receipts on the right sides. The fourth and fifth, however, follow a different pattern. Since the National Wealth Account is a balance sheet with assets on the *left*, increases in assets will appear on the left and decreases in assets on the right; also, since debts to abroad and net worth appear on the *right* side of a balance sheet, increases in either will appear on the right. The Foreign Account is closely related to the National Wealth Account—it is *one* of the assets of which the national wealth is composed; hence increases in the asset appear on the left, decreases on the right. (This is, no doubt, confusing to read but it should clarify itself as we proceed.)

In referring to the accounts in the text and as titles of the accounts themselves, we shall use the short names Business, Persons, Government, Foreign, and National Wealth, and we shall occasionally abbreviate even these short names to their initial letters, B, P, G, F, and NW. All figures both in the text and in the accounts are in millions, that is, six ciphers are dropped. The *x*'s and *y*'s in National Wealth and in Foreign Account represent the unknown figures of the beginning position; we use *y*'s for the foreign items to indicate that these items are *duplicates*, each of the other. Note that debts due *from* abroad are much greater than debts to abroad, an acknowledgment of the creditor position of the United States. The totals of National Wealth Account (not written) are in equilibrium at the start, but those of Foreign Account are not, since the Foreign Account is a part of and subsidiary to the National Wealth Account.

**The Entries to the Social Accounts.** We are now ready to present the listing of the data for the entries in the five social accounts. Each double-entry will be numbered, and this number will be used as an index in the accounts to assist in tracing items back and forth. The student may wish to build up his own set of accounts as suggested heretofore. The order of the items in the following list is of no significance. After the description of each item and any accompanying comment or explanation, the instructions for making the entry will be given. The

latter will follow a standard form (which some will recognize as the form of the *journal entry* of ordinary business bookkeeping), based on an ancient business practice of calling *left* side entries to accounts *debits* and *right* side ones *credits*. We assume that the *x*'s and *y*'s of the beginning position are already entered before we start making entries for the happenings of 1939.

(1) Sales were: to Persons (final goods, including durable ones), \$63,816; to Government, \$5,375; to abroad (exports, of course), \$1,123; and to Business, \$8,563. Only the last item needs any explanation. Of course, *all* sales were made *by* Business, and sales by some firms to others had already been eliminated by cancellation as was done in the hypothetical society. These sales of \$8,563 *by* Business *to* Business, however, are *not* eliminated here because they represent sales of new *equipment* and *buildings*, which increase national wealth and therefore go to the National Wealth account. The instructions for the entry are given in technical journal entry form as stated, which will be used in all cases hereafter without comment. Debits are left-side entries; credits, right side. Each entry follows this left-right pattern, and each has equal debits and credits, whether compound, like this first one, or not.

Debit	Persons Account.....	63,816	
Debit	Government Account ...	5,375	
Debit	Foreign Account .....	1,123	
Debit	NW Account .....	8,563	
	Credit Business (4 items)		78,877

(2) Wages, salaries, and other costs of personal services, \$38,011. This is the familiar cost of the factor labor, and it includes a few items like directors' fees and company social security contributions, sometimes not thought of as wages or salaries.

Debit	Business .....	38,011	
	Credit Persons .....		38,011

(3) Rent, \$3,465. This item includes not only rent payments to persons for business buildings, but also rent payments by persons to other persons for houses and imputed rent of houses occupied by their owners. To count rent payments for houses, whether explicit or implicit, as cost of the factor land in building up the national product aggregate is a conventional piece of statistical juggling. However that may be, the social accountants have treated rent of dwellings in this way and put the payments in Business Account.

Debit	Business .....	3,465	
	Credit Persons .....		3,465

(4) Interest, \$5,417. Includes interest payments by Business, by Gov-

ernment, by firms or governments abroad, and by Persons, all payments going to Persons.

Debit Business .....	3,284	
Debit Government .....	1,205	
Debit Persons .....	801	
Debit Foreign Account .....	127	
Credit Persons .....		5,417

(5) Profits of sole proprietorship and partnership business enterprises, or their net earnings for their owners, \$11,282. Farmers, barber shops, insurance agencies, shoestores and the like, mostly small businesses. A partner might have an agreed salary (included in No. 2) and also a cut of the profits.

Debit Business .....	11,282	
Credit Persons .....		11,282

(6) Corporation profits, \$5,569. Of these profits \$1,462 were paid to Government as profits taxes, another \$3,659 to Persons as dividends on their shares, and the remainder (\$448) retained as undistributed profits added to surpluses. These undistributed profits are transferred to the right side of National Wealth Account to represent the increase in the net worth of the shareholders, who are technically the owners of corporate surpluses and to whom undistributed profits accrue.

Debit Business .....	5,569	
Credit Government (taxes)		1,462
Credit Persons (dividends)		3,659
Credit National Wealth ..		448

(7) Business organizations of all kinds carry inventories of raw materials, partly finished and finished goods. The amounts of these inventories are assets, and the consolidated grand total for all firms is one of the classes of national wealth. Business inventories at any year-end might be either larger or smaller than at the beginning of that year. If they are smaller, there has been a reduction of that class of the national wealth indicating a net use within the period of past savings; if they are larger, national wealth is larger and new savings have been made. In 1939 there was an increase of \$441 in business inventories, which in the account is treated as if it were a sale by Business to itself, and added to assets (produced and "sold to the nation," to use a figure of speech).

Debit National Wealth.....	441	
Credit Business .....		441

(8) In addition to the interest from abroad which accrued to Persons as handled in (4), \$127, wages and salaries of \$2 were paid to residents of the U. S. (agents here of foreign governments or firms, for example); and corporate dividends of \$137 accrued from abroad.

Debit Foreign Account . . . .	2 and 137	
Credit Persons . . . . .		2 and 137

(9) Undistributed profits of foreign branches of American firms also accrued, \$47. These like the other undistributed profits in (6) increase national net worth.

Debit Foreign Account . . . . .	47	
Credit National Wealth ..		47

(10) Imports from abroad: by Government \$64, by Persons \$484. Imports, of course, are an item purchased and consumed or saved here, but not produced here, the opposite of exports.

Debit Government . . . . .	64	
Debit Persons . . . . .	484	
Credit Foreign Account ..		548

(11) At this point all the entries affecting Foreign Account are complete. The account shows a total of \$1,436 added during 1939 to what foreign countries already owed the United States, offset by \$548 due the other way for imports, equaling a net addition of \$888 which, of course, represents additional foreign investments of individuals, firms, and government and is added to National Wealth by transfer entry. It represents also the "balance of international payments." The same entry would be made, it may be noted, if the balance or any part of it had been settled in gold.

Debit National Wealth . . . . .	888	
Credit Foreign Account...		888

(12) Wages and salaries paid by employers other than business firms already recognized in (2). Included are the government payroll \$7,430, and wages and salaries paid by households for personal service and by nonprofit institutions and welfare funds which perform services for persons \$2,167. Nonprofit institutions are considered in these statistics to be Persons.

Debit Government . . . . .	7,629	
Debit Persons . . . . .	2,178	
Credit Persons . . . . .		9,807

(13) Contributions by employees and employers for social insurance \$2,136. These are, in effect, taxes on employed persons who typically never see or handle the money because it is withheld from their wages and salaries as federal income taxes are withheld today, plus matching contributions by employers.

Debit Persons . . . . .	2,136	
Credit Government . . . . .		2,136

(14) Taxes paid by persons direct to all governmental units, principally federal income taxes and local general property taxes, \$2,440.

Debit Persons .....	2,440	
Credit Government .....		2,440

(15) Indirect taxes \$9,365. All sales and excise taxes and others incurred by business except profits taxes and others already handled.

Debit Business .....	9,365	
Credit Government .....		9,365

(16) Transfer payments \$2,963. The largest proportion of this total represents pensions and unemployment benefits paid to persons by the government, \$2,512. The remaining \$451 is similar payments by firms, but includes also corporate gifts to non-profit institutions such as universities, art institutes and hospitals. It would be well to note here that these payments are not made for *services rendered* during 1939 and hence are not part of the national income.

Debit Business .....	451	
Debit Government .....	2,512	
Credit Persons .....		2,963

(17) Allowance for depreciation, obsolescence and scrapping of the equipment and other capital assets (a) of Business \$7,914, and (b) of non-profit institutions \$187.

Debit Business .....	7,914	
Debit Persons .....	187	
Credit National Wealth ..		*8,101

A small kink presents itself here in that the credit to National Wealth in this entry does not represent an increase in net worth as it appears to do, but rather a subtraction from the fixed assets on the other side. It is a conventional practice in business accounting to place a subtraction or negative figure on the side of an account *opposite* to the positive side. The offsetting in this manner of depreciation against the assets on the other side is approximately the equivalent of offsetting exports against imports in Foreign Account at an earlier point. The item is starred for this reason.

(18) Government subsidies \$485, mostly to farmers, who are, you remember, consolidated with the Business Account. The credit to Business in this entry is another starred item for a special reason which will appear later.

Debit Government .....	485	
Credit Business .....		*485

(19) All entries affecting Persons Account are now complete, and when we add the two sides we find \$74,743 as the total of income and

\$72,042 as the total of expenditures. The excess of the former over the latter is, of course, personal money savings, \$2,701; and this amount is transferred to National Wealth as an increase in net worth.

Debit Persons (transfer) . . . . .	2,701	
Credit National Wealth ..		2,701

(20) Entries of government receipts and expenditures are now added, and show \$15,403 and \$17,270, respectively. There is obviously a government deficit. We dispose of it by transferring it to National Wealth Account.

Debit National Wealth . . . . .	*1,867	
Credit Government . . . . .		1,867

The debit entry is starred, as you notice, because it represents not a new asset on the national balance sheet like the three items already there, but rather a subtraction from net worth. Any mystification brought about by these starred figures will be cleared up in the summary.

(21) We are now left with only two accounts not in equilibrium, Business and National Wealth. Business Account has \$462 more revenue than expenses and National Wealth \$462 more debits than credits. We reason that these equal and opposite differences must represent statistical errors and omissions, and so we extinguish this technical "surplus" of the Business Account by transferring it to National Wealth to represent an increase in the net worth of the nation, source unknown.

Debit Business (transfer) . . . . .	462	
Credit National Wealth ..		462

In the actual accounts of the Department of Commerce this item is called *Statistical Discrepancy*.

**The five social accounts.** We now present, one by one, the five accounts which compose the social accounting system. Each entry on both sides of every account has a brief caption, and also bears the identification number by which it can be traced back to the listing, for further explanation, or in order to see where its counter-entry went. Following each account appears a rearrangement of selected items from its left side, these items being those which, by the adopted definitions of the Department of Commerce, are counted in making up the all-national statistical magnitudes: *National Income*, *Net National Product*, and *Gross National Product*. A final recapitulation of the latter follows the presentation of the five sector accounts. It should be understood that the national income and the other aggregates can be compiled in several ways other than the two we have selected here; but a couple of illustrations are sufficient for present purposes. The first compilation from the debit sides of four of the sector accounts has the advantage that it is most nearly parallel to the methods of securing the aggregates used in the hypothetical society.

*The Business Account.* First we present the Business Account, which is, we repeat, a consolidation of all privately owned firms, whether incorporated or not, which are in business in the hope and expectation of making money. Business Account includes professional consultants, farmers, nonprofit organizations serving business (like trade associations and chambers of commerce) and government enterprises which have operating costs and income like private enterprises (municipally owned utilities, the postal service, and others).

CONSOLIDATED BUSINESS INCOME AND PRODUCT ACCOUNT, 1939

<i>Costs and Expenditures</i>		<i>Revenue</i>	
(2)	Wages and salaries .. \$38,011	(1)	Sales: to Persons .... \$63,816
(3)	Rent ..... 3,465		to Gov't ..... 5,375
(4)	Interest ..... 3,284		to abroad .... 1,123
(5)	Profits, unincorporated firms ..... 11,282		equipment, buildings ... 8,563
(6)	Profits, corporations . 5,569	(7)	Increase in inventories 441
(15)	Indirect taxes ..... 9,365	(18)	Subsidies from Gov- ernment ..... * 485
(16)	Pensions, benefits, gifts ..... 451		
(17)	Consumption of initial capital ..... 7,914		
(21)	Statistical discrepancy 462		
	<u>\$79,803</u>		<u>\$79,803</u>

PARTS OF STATISTICAL AGGREGATES ARISING IN THE BUSINESS SECTOR

*Factor cost payments—*

Labor (wages and salaries) .....	(2)	\$38,011
Land (rent) .....	(3)	3,465
Capital (interest) .....	(4)	3,284
Capital (profits) .....	(5, 6)	16,851
Count towards National Income .....		\$61,611

*Add other costs—*

Indirect taxes .....	(15)	9,365
Pensions, benefits, gifts .....	(16)	451
Statistical discrepancy .....	(21)	462
Subsidies from right side (minus) ..	(18)	-485
Sub-total, other costs less subsidies .....		<u>9,793</u>
Count towards Net National Product .....		\$71,404
<i>Consumption of initial capital</i> .....	(17)	<u>7,914</u>
Count towards Gross National Product .....		<u>\$79,318</u>

*The Persons Account.* Persons Account, which we present next, includes not only individuals and consuming units as purchasers of final goods and services and receivers of factor incomes; it includes also non-profit institutions which serve individuals (hospitals, colleges, museums) and private trusts, pension and welfare funds. It is like Business Account a grand consolidation of the incomes and expenditures of thousands and thousands of units; and most of the cross payments between and among the consolidated units cancel out in the manner already demonstrated for the four Firms. Not all, however; for if an institution or a person purchases the services of another it is a factor payment. For example, suppose a university derives an income in the form of interest and dividends from the investments of its endowment, say a million dollars. This is a factor income, being a return to the university for the use of capital. Suppose the university pays the football coach a salary of \$15,000, and that the coach pays a household employee a salary of \$2,000. All three of these incomes, \$1,000,000, \$15,000 and \$2,000 go into the statistical aggregate because each represents a factor service, either capital or labor. It is not double counting to put them all in. It follows that item 12 on the left side of Persons Account represents uncanceled cross payments within the group.

PERSONS ACCOUNT 1939

<i>Expenditure</i>			<i>Income</i>		
(1)	Final goods, services	\$63,816	(2)	Wages, salaries . . . . .	\$38,011
(4)	Interest payments . . . . .	801	(3)	Rent income . . . . .	3,465
(10)	Imported goods, services . . . . .	484	(4)	Interest income . . . . .	5,417
(12)	Salaries, wages paid . . . . .	2,178	(5)	Profits . . . . .	11,282
(13)	Social insurance contributions . . . . .	2,136	(6)	Corporate dividends . . . . .	3,659
(14)	Taxes . . . . .	2,440	(8)	Wages from abroad . . . . .	2
(17)	Institutional depreciation . . . . .	187	(8)	Dividends from abroad . . . . .	137
(19)	Savings transferred to National Wealth . . . . .	2,701	(12)	Wages from Government and Persons . . . . .	9,807
			(16)	Pensions, benefits and transfer payments . . . . .	2,963
		<u>\$74,743</u>			<u>\$74,743</u>

## PARTS OF STATISTICAL AGGREGATES ARISING IN THE PERSONS SECTOR

*Factor payments—*

Services of labor .....	(12)	\$2,178
Services of capital .....	(4)	801
Count towards <i>National Income</i> and towards <i>Net National Product</i> .....		\$2,979
Add: consumption of initial capital .....	(17)	187
Count for <i>Gross National Product</i> .....		<u>\$3,166</u>

*The Government Account.* We have mentioned that government enterprises which at least purport to meet operating costs out of sales revenue are consolidated in the Business Account and are not in the Government Account which follows next. Hence the expenditures in the latter represent only the general services of the government. Government Account is a grand consolidation of the receipts and payments of the United States, the states, the counties, the townships, and the cities and towns.

## GOVERNMENT ACCOUNT 1939

<i>Expenditures</i>			<i>Revenues and Receipts</i>		
(1)	Goods and services .	\$ 5,375	(6)	Corporate profits	
(4)	Interest paid .....	1,205		taxes .....	\$ 1,462
(10)	Foreign goods ....	64	(13)	Social insurance	
(12)	Payrolls .....	7,629		contributions ....	2,136
(16)	Transfer payments .	2,512	(14)	Personal taxes .....	2,440
(18)	Subsidies .....	485	(15)	Indirect taxes .....	9,365
			(20)	Transfer deficit to	
				NW .....	1,867
		<u>\$17,270</u>			<u>\$17,270</u>

The only item in this account which goes into the aggregates \* is item 12, the Government payrolls, which are, of course, payments for the services of the factor labor, from local school bus drivers to the senators and the generals and the admirals. It is a large figure—over seven and a half billions. The single figure, \$7,629, counts towards all three of the aggregates, *National Income*, *Net National Product*, and *Gross National Product*.

The interest of item 4 is omitted from the statistical aggregates. It is an example of cross payments that cancel because the payments are *not* made as an income return to the owners of capital; no services are represented.

\* In this particular method of building them up.

## FOREIGN ACCOUNT 1939

<i>Charges to Abroad</i>		<i>Credits to Abroad</i>	
1/1/39—Debts due from abroad .....	<i>yy,yyy</i>	1/1/39—Debts due to abroad .....	<i>y,yyy</i>
(1) Charges for exports	\$ 1,123	(10) Due to abroad for imports .....	\$ 548
(4) Charges for interest	127	(11) Transfer net in- crease in foreign investments to NW .....	888
(8a) Charges for divi- dends .....	137		
(8b) Wages paid .....	2		
(9) Undistributed branch profit ...	47		
	<u>\$1,436</u>		<u>\$1,436</u>

## PARTS OF STATISTICAL AGGREGATES ARISING IN THE FOREIGN SECTOR

## Factor cost payments—

Labor (wages) .....	(8b)	\$ 2
Capital (interest) .....	(4)	127
Capital (profits) .....	(8a, 9)	<u>184</u>

Count towards *National Income* and towards  
*Net and Gross Product* ..... 313

*The National Wealth Account.* Below is the fifth of the accounts of the system, the National Wealth Account. It contains no items which constitute parts of any of the statistical aggregates by the *method here being employed* in building up those aggregates. Other methods of building up the aggregates do make use of some of these items. Because of the highly technical nature of the account, however, especially the presence of a starred item on each side, we shall present, following the technical account, a nontechnical rearrangement of that part of it which represents the changes of 1939.

## NATIONAL WEALTH ACCOUNT 1939

<i>Assets</i>		<i>Debts and Net Worth</i>	
1/1/39—Final goods in hands of consumers .....	x,xxx	1/1/39—Debts due to abroad .....	y,yyy
Business inventories ....	x,xxx	Net Worth of Persons ...	xx,xxx
Debts due from abroad .	yy,yyy		
Equipment .....	xx,xxx		
Land and buildings ....	xx,xxx		
(1) Equipment and buildings .....	\$8,563	(6) Additions to corporate surpluses	\$ 448
(7) Increase in bus. inventories ...	441	(9) Same for foreign branches .....	47
(11) Foreign investments .....	888	(17) Exhaustion of capital assets .	*8,101
(20) Government deficit .....	*1,867	(19) Personal savings.	2,701
		(21) Statistical discrepancy .....	462
	<u>\$11,759</u>		<u>\$11,759</u>

## REARRANGEMENT OF THE ACCOUNT

## STATEMENT OF CHANGES IN NATIONAL WEALTH YEAR 1939

*Assets added during year—*

Equipment and buildings .....	\$8,563
Inventories .....	441
Foreign investments .....	888
Total additions to national wealth, 1939 .....	<u>\$9,892</u>
<i>Less Offset—</i> Exhaustion of initial equipment .....	8,101
Net increase in National Wealth, 1939 .....	<u>\$1,791</u>

*Verification—*

## Increases in net worth:

Added to corporate surpluses (domestic) .....	\$ 448
Added to corporate surpluses (foreign branches)	47
Personal savings .....	2,701
Added to net worth (source unknown) .....	<u>462</u>

Gross savings-investment of nation, 1939 .....	\$3,658
Less offset—government deficit .....	1,867
Net savings-investment of the nation, 1939 .....	<u>\$1,791</u>

We now have only to bring together the parts of the statistical aggregates as they have been identified after each account.

**Some Important Statistical Magnitudes.** The statisticians of the Department of Commerce have defined *National Income* to be "the aggregate earnings of labor and property which arise from the current production of goods and services by the Nation's economy. It is the total factor of costs of the goods and services produced by the economy." We summarize this first by sectors:

## NATIONAL INCOME 1939

Business sector .....	\$61,611
Persons sector .....	2,979
Government sector .....	7,629
Foreign sector .....	313
National Income .....	<u>\$72,532</u>

and second by factor payments:

Wages and salaries .....	\$47,820
Rent .....	3,465
Interest .....	4,212
Profits .....	17,035
National Income .....	<u>\$72,532</u>

"*Net National Product* is the market value of the net output of goods and services produced by the Nation's economy." To the factor costs composing National Income we have only to add the non-factor costs (except depreciation and capital consumption allowances) which appear in the Business Account; that is to say indirect taxes, pensions and benefits, and statistical discrepancy less government subsidies.

National Income as above .....	\$72,532
Other costs less subsidies (from Business Account) ..	9,793
<i>Net National Product</i> .....	<u>\$82,325</u>

"*Gross National Product* is the market value of the goods and services produced by the Nation's economy, before deduction of depreciation charges and other allowances for business and institutional consumption of durable capital goods." "*Gross National Product* comprises the purchases of goods and services by consumers and government, gross private domestic investment, and net foreign investment." In order to obtain the figure for gross national product, therefore, we have only to add the two capital consumption items to the total of net national product just found.

Net National Product (from above)	.\$82,325
Add consumption of capital:	
From Business .....	7,914
From Persons (institutions) .....	187
<i>Gross National Product</i> .....	<u>\$90,426</u>

For one more example suppose we build up the same three statistical magnitudes, starting this time with Gross National Product, and using a different approach. We shall follow the alternative definition given above, that is, "purchases of goods and services by consumers and government plus domestic and foreign investment." We select our figures again from the debit sides of three of the five accounts, not the same ones as those used in the first computation.

## GROSS NATIONAL PRODUCT 1939

(a) Goods and services purchased by consumers—	
Final goods and services from Business .....	(1) \$63,816
Imports .....	(10) 484
Labor services from Persons .....	(12) 2,178
Services of capital .....	(4, 17) 988
Sub-total .....	<u>\$67,466</u>
(b) Goods and services purchased by government—	
Final goods and services from Business .....	(1) \$ 5,375
Imports .....	(10) 64
Labor services .....	(12) 7,629
Sub-total .....	<u>\$13,068</u>
(c) Domestic and foreign investment (Sub-total) ...	(1, 7, 11) \$ 9,892
(This figure is the increase in the national assets taken from the rearrangement of the National Wealth Account)	
Grand total, <i>Gross National Product</i> .....	<u>\$90,426</u>

## NET NATIONAL PRODUCT 1939

Gross National Product (as above) .....	.\$90,426
Less capital consumption allowances (item 17 from the National Wealth Account) .....	8,101
Net National Product as before .....	.\$82,325
Less the nonfactor costs of production, mostly indirect taxes .....	(15, 16, 18, 21) 9,793
<i>National Income</i> (as before) .....	<u>\$72,532</u>

## CONCLUSIONS

National Income is an extraordinarily elusive concept. Income is a process—the process of drawing from useful goods their need- and want-satisfying powers or qualities. As an idea this definition is as sensible and as satisfactory for a twentieth-century society as for a Robinson Crusoe, although one would need to include services as well as goods for the twentieth-century situation. The idea bogs down and is useless in practice, however, for how is one to express in dollar language the process of extracting from a piano in one's home its power to bestow satisfactions—an "income" that will flow for years and years? Social accounting is obliged to compromise this difficulty. Social accounting says that the *making* of the piano generates incomes in the form of wages, rent, interest, and profits to the persons whose labor, land, and capital contributed to its making, and it says that the piano is output or product when finally sold. This *sale* of it as a final good closes the social accounting record. The consequence is that the income from that product goes, statistically, not to the consumer who bought it and will get the real income from it, but to Tom, Dick, and Harry who built it but who will never use it, hear it, or see it again.

There are necessarily many other statistical compromises and adjustments, of which we shall refer only to one that has already been mentioned, that is, "imputations." Home ownership is considered to be a business, and the sale of new residences is therefore in the Business Account as sales of capital assets. The construction of homes generates money incomes, just as the making of a piano does, which flow to people who will (10,000 to 1) never live in the houses they build. Thereafter, whether the owner lives in it himself or rents it to a tenant, the annual rent, imputed in the one case and actually paid and received in the other, finds its way into both national output and national income. Hence both the construction cost of the house and the annual value of its use are counted statistically as both product and income in the year of its construction.

Other imputations occur both in the Business Sector and in the Persons Sector. Examples are food and fuel produced and consumed on farms, free food and lodging furnished by business as wages in kind, and quarters furnished to teachers, ministers, and nurses. This seems sensible and clear; the items are added to costs and income just as if they were paid in cash back and forth. But the services of housewives are just as clear; yet no recognition is made of them.

It is easy to find fault with the statistical aggregates of social accounting. Their most obvious broad value, at least to the layman, is that they permit comparisons of the same magnitude for different years. No matter how an aggregate figure for national income is computed, if it is made up in the same manner year after year at least the omissions and the inconsistencies are always the same, and hence comparability is not

seriously impaired. But suppose broad upward changes in price levels are taking place? The national income of one year may be a third or a quarter larger than that of another year, yet the entire increase will be a sham and a deception because of the higher valuations; a hundred thousand beef cattle may get into the statistics at a higher money figure than a hundred and ten thousand at another time. One could scarcely call that an increase in national wealth, although the figures would show it so. Aggregates can, of course, be converted into "constant dollars" by the use of index numbers to eliminate and correct for the changing value of money. This restores the validity of dollar comparisons but at the same time throws into the converted aggregate a new element of unreality.

Fault is sometimes found because of the alleged dubious nature of some of the items in Government Account which are counted towards Gross National Product. No objection can be raised against inclusion of the factor rewards paid by government jurisdictions for labor services performed in the public school systems or in the local, state and federal civil establishments—no objections, that is, beyond the usual claims of waste and extravagance which would be made with or without social statistics. The case of the federal military establishment is perhaps not so clear, especially in war time. Since the whole of the Government payroll, however, goes into both Gross National Product and National Income, any labor "services" of a boondoggling nature are statistically counted even though such services are wholly useless, as payment of wages to the unemployed to dig holes in the ground and fill them again.

The precise numbers and the neatly balanced accounts and double entries give an appearance and an impression of accuracy and validity which they do not really have. The same can be said, to be sure, of the precise figures and the balanced accounts of private business bookkeeping. But our complicated world could not get along at all without writing figures on pieces of paper within the single business unit. Consider payrolls and bank accounts, for instance; there is never any doubt as to what to do with such statistical data when they are available. Action follows; the wheels turn. The statistical magnitudes of social accounting do not come to life in this way; they illuminate the past but provide doubtful guidance for the future. Public policy still depends much more on good judgment than on statistical aggregates.

**Selected aggregates, 1929–1950.** We present, finally, two tables, in figures rounded off to the nearest hundred million dollars, taken from data compiled by the Department of Commerce and printed in its 1951 Supplement to the *Survey of Current Business*, covering the 22 years 1929 to 1950.

Table 1 shows *Gross National Product* and its four constituent parts, built up in the same manner as in our second illustration given before. The first four money columns of this table add across (save for minor variations caused by rounding) to the fifth column, the gross product.

The sixth column is labeled "deflator index," and the numbers which appear in it are not dollars. Each number is a composite ratio or index of the prices of the goods and services bought by consumers and Government for each year shown to the prices of those same goods and services (or corresponding ones) in the year 1939, which is used as the base year for the entire series. In 1950, for example, the deflator index is 183.2, meaning that approximately the same package of various goods and services as would have cost \$100.00 in 1939 cost in 1950 \$183.20. Dividing the 1950 gross product of \$282.6 billion by this deflator index gives the quotient \$154.3 billion shown in column 7. This last column,

TABLE 1

GROSS NATIONAL PRODUCT AND COMPONENTS IN CURRENT AND IN 1939  
DOLLARS, 1929-1950  
(Billions of Dollars)

Years	Personal Consumption Expenditures	Gross Private Domestic Investment	Net Foreign Investment	Government Purchases of Goods, Services	GROSS NATIONAL PRODUCT	Deflator Index	Gross National Product in 1939 Dollars
1929	78.8	15.8	.8	8.5	103.5	120.9	85.9
1930	70.8	10.2	.7	9.2	90.9	116.3	78.1
1931	61.2	5.4	.2	9.2	75.9	105.0	72.3
1932	49.2	.9	.2	8.1	58.3	94.2	61.9
1933	46.3	1.3	.15	8.0	55.8	90.7	61.5
1934	51.9	2.8	.4	9.8	64.9	95.5	67.9
1935	56.2	6.1	— .1	9.9	72.2	97.7	73.9
1936	62.5	8.3	— .1	11.7	82.5	98.3	83.9
1937	67.1	11.4	.1	11.6	90.2	102.7	87.9
1938	64.5	6.3	1.1	12.8	84.7	100.9	84.0
1939	67.5	9.9	.9	13.1	91.3	100.0	91.3
1940	72.1	13.9	1.5	13.9	101.4	101.5	100.0
1941	82.3	18.3	1.1	24.7	126.4	109.5	115.5
1942	91.2	10.9	— .2	59.7	161.6	124.6	129.7
1943	102.2	5.7	—2.2	88.6	194.3	133.4	145.7
1944	111.6	7.7	—2.1	96.5	213.7	136.2	156.9
1945	123.1	10.7	—1.4	82.8	215.2	140.3	153.4
1946	146.9	28.7	4.6	30.9	211.1	152.6	138.4
1947	165.6	30.2	8.9	28.6	233.3	168.6	138.6
1948	177.9	42.7	1.9	36.6	259.0	180.6	143.5
1949	180.2	33.0	.5	43.6	257.3	179.3	143.5
1950	193.6	48.9	—2.3	42.5	282.6	183.2	154.3

therefore, measures the "constant dollar" output of the nation for each year, as referred to heretofore, with general price inflation eliminated.

Table 2 presents six other selected statistical aggregates most commonly referred to in studies of the nation's economic affairs. *National Income* has already been defined. *Personal Income* is all of the factor returns received by persons, plus certain transfer payments. *Personal Income* less taxes and other payments to general government gives the aggregate called *Disposable Personal Income*, which is the amount of persons' income available for buying and for saving. *Disposable Per-*

TABLE 2  
OTHER SELECTED AGGREGATES 1929-1950, ALL IN CURRENT DOLLARS  
(In Billions of Dollars)

Years	National Income	Personal Income	Disposable Personal Income	Less Personal Consumption Expenditures	Personal Savings	* Government Surplus (S) Deficit (D)
1929	87.4	85.1	82.5	78.8	3.7	S 1.1
1930	75.0	76.2	73.7	70.8	2.9	D .3
1931	58.9	64.8	63.0	61.2	1.8	D 2.8
1932	41.7	49.3	47.8	49.2	-1.4	D 1.7
1933	39.6	46.6	45.2	46.3	-1.2	D 1.3
1934	48.6	53.2	51.6	51.9	-.2	D 2.4
1935	56.8	59.9	58.0	56.2	1.6	D 1.8
1936	64.7	68.4	66.1	62.5	3.6	D 2.9
1937	73.6	74.0	71.1	67.1	3.9	S .7
1938	67.4	68.3	65.5	64.5	1.0	D 1.5
1939	72.5	72.6	70.2	67.5	2.7	D 1.9
1940	81.3	78.3	75.7	72.1	3.7	D .5
1941	103.8	95.3	92.0	82.3	9.8	D 3.5
1942	137.1	122.7	116.7	91.2	25.6	D 31.2
1943	169.7	150.3	132.4	102.2	30.2	D 43.9
1944	183.8	165.9	147.0	111.6	35.4	D 51.4
1945	182.7	171.9	151.1	123.1	28.0	D 39.2
1946	180.3	177.7	158.9	146.9	12.0	S 4.6
1947	198.7	191.0	169.5	165.6	3.9	S 13.7
1948	223.5	209.5	188.4	177.9	10.5	S 8.2
1949	216.7	205.1	186.4	180.2	6.3	D 2.8
1950	239.0	224.7	204.3	193.6	10.7	S 8.0

\* See *Nat. Inc. Sup.*, 1951 ed., pp. 154-155. Figured Deficit from Table 3, Receipts, and Table 9, Disbursements.

*sonal Income*, in turn, minus Consumption Expenditures (repeated from Table 1 for convenience) gives *Personal Savings*. *Government Surplus or Deficit* is not derived from the other figures in Table 2; it comes from the Government Account of each year just as it did in the example for 1939 given earlier.

### Questions

1. A discussion develops between two social scientists as to whether in a Robinson Crusoe economy there could be any such concept as *interest*. Scientist A argues that by definition interest is a price paid for the use of money capital for a given time, and, since there were no money transactions in the economy, such a concept as interest would be nonexistent. Scientist B replies that A's definition is wrong or at least superficial, and that the essence of the concept *interest* is: the excess of the productivity of a given amount of human labor *with* the aid of tools over the same amount *without* tools, or with *less* or *poorer* tools. B contends that this excess is the reward to the factor of production *capital* in any economy; moreover, that in Crusoe's economy interest, if it could be measured, would be found to be at a very high rate percent. Who, if either, is right?

2. Suppose the government of our hypothetical society decided to print and to feed out into that economy during the period covered by the problem an extra \$100 of paper money. In your opinion what changes would such an action have brought about in the consolidated social balance sheet as presented on p. 704.

3. The hypothetical society apparently operated without either using up or adding to its wealth. This is unreal, of course. But can you mention some advantages or virtues which an economy operating without savings and investment would have over our own? Assume that enough labor and intermediate goods to maintain and to replace the initial capital are included in the accounts given.

4. One of the component parts of personal consumption expenditures for services is admissions to motion picture and other theaters. Suppose that as a junior statistician you were assigned the task of finding out the statistical magnitude of this item of consumer expenditures for the U. S. for one year, from basic data. How might you go about it? Where would you look for basic data?

5. Suppose you had a figure representing expenditures of Americans for foreign travel in a year. Write and explain the "double-entry" which should be made in order to get this statistical magnitude into the national social accounts. Do the same for gratuitous exports of food and other commodities as under the Marshall Plan.

6. Do you accept the proposition that even if 100,000 beef cattle were worth at the end of a year more in dollars than 110,000 at the beginning of that year, nevertheless there has been a *decrease*, and not an *increase*, of wealth? Remember that every individual owner of beef cattle would

consider himself wealthier with 100 cattle worth \$25,000 than with 110 worth \$22,000; so that if you do accept the proposition, you are in the position of maintaining that the sum of what individuals would unquestionably consider to be increases in their private wealth does not necessarily mean there has been an increase in *national* wealth.

7. A person comparing the constant dollar gross national product of 1950 with that of 1939 (see Table 1) argues that the 69% increase measures accurately the improvement in the general welfare of the population of the U. S. over the 11-year period. Do you agree, or has this person overlooked some other matters which should be taken into consideration?

8. Suppose the federal administration consciously and intentionally creates a large government deficit, as actually happened in the early 'thirties, and again much more conspicuously in 1941-1945 (see Table 2). Does there seem to be any correlation from year to year between the size of the deficit and the size of the national income? If so could it be said which was cause and which was effect?

9. In your opinion would it be proper to apply to national income and other aggregates in Table 2 the same deflator index as was used in Table 1 to convert current dollars into constant ones?

## *Appendix B:* *Books of Selected Readings*

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(These publications are referred to in the chart by the brief titles shown in bold face)

Arthur D. Gayer, C. Lowell Harriss, Milton H. Spencer, *Basic Economics: A Book of Readings* (New York: Prentice-Hall, Inc., 1951) [**Gayer and Others**]

Asher Isaacs, C. W. McKee, R. E. Slesinger, *Selected Readings in Modern Economics* (New York: The Dryden Press, 1952) [**Isaacs and Others**]

Arleigh P. Hess, Jr., Robert E. Gallmann, John P. Rice, Carl Stern, *Outside Readings in Economics* (New York: Thomas Y. Crowell Company, 1951) [**Hess and Others**]

Walter Adams and Leland E. Traywick, *Readings in Economics: Principles and Problems* (New York: The Macmillan Company, 1950) [**Adams and Traywick**]

William D. Grampp and Emanuel T. Weiler, Editors, *Economic Policy, Readings in Political Economy* (Homewood, I-U.; Richard D. Irwin, Inc.) [**Grampp and Weiler**]

Paul A. Samuelson, Robert L. Bishop, John R. Coleman, *Readings in Economics* (New York: McGraw-Hill Book Co., Inc., 1952) [**Samuelson and Others**]

### *Work Books*

Clark Lee Allen, Aurelius Morgner, Robert Henry Strotz, *Problems for Economic Analysis* (New York: Prentice-Hall, Inc., 1948) [**Allen and Others**]

Yale Brozen, *Workbook for Economics* (Dubuque, Iowa: Wm. C. Brown Company, 2nd Edition, 2nd Printing, 1948) [**Brozen**]

## SUGGESTED COLLATERAL READING

V.S.&R. (Chap.)	Adams and Traywick (Chapter)	Gayer & Others (Selections)	Hess & Others (Selections)	Isaacs & Others (Selections)
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