

FUNDAMENTALS OF HUMAN ACTION¹

1. *The Concept of Action*

THE DISTINCTIVE AND CRUCIAL FEATURE in the study of man is the concept of *action*. *Human action is defined simply as purposeful behavior*. It is therefore sharply distinguishable from those observed movements which, from the point of view of man, are not purposeful. These include all the observed movements of inorganic matter and those types of human behavior that are purely reflex, that are simply involuntary responses to certain stimuli. *Human action*, on the other hand, can be *meaningfully interpreted* by other men, for it is governed by a certain *purpose* that the actor has in view.² The purpose of a man's act is his *end*; the desire to achieve this end is the man's *motive* for instituting the action.

[PUBLISHER'S NOTE: Page numbers cited in parentheses within the text refer to the present edition.]

¹For further reading on this topic, the best source is the epochal work of Ludwig von Mises, *Human Action* (New Haven, Conn.: Yale University Press, 1949), pp. 1–143, and *passim*.

²Cf. *ibid.*, p. 11; F.A. Hayek, "The Facts of the Social Sciences," in *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), pp. 57–76; Hayek, *The Counter-Revolution of Science* (Glencoe, Ill.: The Free Press, 1952), pp. 25–35; and Edith T. Penrose, "Biological Analogies in the Theory of the Firm," *American Economic Review*, December, 1952, pp. 804–19, especially 818–19.

All human beings *act* by virtue of their existence and their nature as human beings.³ We could not conceive of human beings who do not act purposefully, who have no ends in view that they desire and attempt to attain. Things that did not *act*, that did not behave purposefully, would no longer be classified as human.

It is this fundamental truth—this axiom of human action—that forms the key to our study. The entire realm of praxeology and its best developed subdivision, economics, is based on an analysis of the necessary logical implications of this concept.⁴ The fact that men act by virtue of their being human is indisputable and incontrovertible. To assume the contrary would be an absurdity. The contrary—the absence of motivated behavior—would apply only to plants and inorganic matter.⁵

2. *First Implications of the Concept*

The first truth to be discovered about human action is that *it can be undertaken only by individual "actors."* Only individuals have ends and can act to attain them. There are no such things as ends of or actions by "groups," "collectives," or "States," which do not take place as actions by various specific individuals. "Societies" or

³Cf. Aristotle, *Ethica Nicomachea*, Bk. I, especially ch. vii.

⁴This chapter consists solely of a development of the logical implications of the existence of human action. Future chapters—the further parts of the structure—are developed with the help of a very small number of subsidiary assumptions. Cf. Appendix below and Murray N. Rothbard, "Praxeology: Reply to Mr. Schuller," *American Economic Review*, December, 1951, pp. 943–46; and "In Defense of 'Extreme Apriorism,'" *Southern Economic Journal*, January, 1957, pp. 314–20.

⁵There is no need to enter here into the difficult problem of animal behavior, from the lower organisms to the higher primates, which might be considered as on a borderline between purely reflexive and motivated behavior. At any rate, men can *understand* (as distinguished from merely observe) such behavior only in so far as they can impute to the animals motives that they can understand.

“groups” have no independent existence aside from the actions of their individual members. Thus, to say that “governments” act is merely a metaphor; actually, certain individuals are in a certain relationship with other individuals and act in a way that they and the other individuals recognize as “governmental.”⁶ The metaphor must not be taken to mean that the collective institution itself has any reality apart from the acts of various individuals. Similarly, an individual may contract to act as an agent in representing another individual or on behalf of his family. Still, only individuals can desire and act. The existence of an institution such as government becomes meaningful only through influencing the actions of those individuals who are and those who are not considered as members.⁷

In order to institute action, it is not sufficient that the individual man have unachieved ends that he would like to fulfill. *He must also expect that certain modes of behavior will enable him to attain his ends.* A man may have a desire for sunshine, but if he realizes that he can do nothing to achieve it, he does not act on this desire. He must have certain *ideas* about how to achieve his ends. Action thus consists of the behavior of individuals directed towards ends in ways that they believe will accomplish their purpose. Action requires an image of a desired end and “technological ideas” or plans on how to arrive at this end.

Men find themselves in a certain *environment*, or *situation*. It is this situation that the individual decides to change in some way in order to achieve his ends. But man can work only with the numerous elements that he finds in his environment, by rearranging them in order to bring about the satisfaction of his

⁶To say that only individuals act is not to deny that they are influenced in their desires and actions by the acts of other individuals, who might be fellow members of various societies or groups. We do not at all assume, as some critics of economics have charged, that individuals are “atoms” isolated from one another.

⁷Cf. Hayek, *Counter-Revolution of Science*, p. 34. Also cf. Mises, *Human Action*, p. 42.

ends. With reference to any given act, the environment external to the individual may be divided into two parts: those elements which he believes he cannot control and must leave unchanged, and those which he can alter (or rather, thinks he can alter) to arrive at his ends. The former may be termed the *general conditions* of the action; the latter, the *means* used. Thus, the individual actor is faced with an environment that he would like to change in order to attain his ends. To act, he must have technological ideas about how to use some of the elements of the environment as *means*, as pathways, to arrive at his ends. Every act must therefore involve the employment of means by individual actors to attempt to arrive at certain desired ends. In the external environment, the general conditions cannot be the objects of any human action; only the means can be employed in action.⁸

All human life must take place *in time*. Human reason cannot even conceive of an existence or of action that does not take place through time. At a time when a human being decides to act in order to attain an end, his goal, or end, can be finally and completely attained only at some point *in the future*. If the desired ends could all be attained instantaneously in the present, then man's ends would all be attained and there would be no reason for him to act; and we have seen that action is necessary to the nature of man. Therefore, an actor chooses means from his environment, in accordance with his ideas, to arrive at an expected end, completely attainable only at some point in the future. For any given action, we can distinguish among three periods of time involved: the period before the action, the time absorbed by the action, and the period after the action has been completed. All action aims at rendering conditions at some time in the future more satisfactory for the actor than they would have been without the intervention of the action.

⁸Cf. Talcott Parsons, *The Structure of Social Action* (Glencoe, Ill.: The Free Press, 1949), pp. 44 ff.

A man's *time* is always scarce. He is not immortal; his time on earth is limited. Each day of his life has only 24 hours in which he can attain his ends. Furthermore, all actions must take place through time. Therefore time is a *means* that man must use to arrive at his ends. It is a means that is omnipresent in all human action.

Action takes place by *choosing* which ends shall be satisfied by the employment of means. Time is *scarce* for man only because whichever ends he chooses to satisfy, there are others that must remain unsatisfied. When we must use a means so that some ends remain unsatisfied, the necessity for a *choice among ends* arises. For example, Jones is engaged in watching a baseball game on television. He is faced with the choice of spending the next hour in: (a) continuing to watch the baseball game, (b) playing bridge, or (c) going for a drive. He would like to do all three of these things, but his means (time) is insufficient. As a result, he must *choose*; one end can be satisfied, but the others must go unfulfilled. Suppose that he decides on course A. This is a clear indication that he has *ranked* the satisfaction of end A higher than the satisfaction of ends B or C.

From this example of action, many implications can be deduced. In the first place, *all means are scarce*, i.e., limited with respect to the ends that they could possibly serve. If the means are in unlimited abundance, then they need not serve as the object of attention of any human action. For example, air in most situations is in unlimited abundance. It is therefore not a means and is not employed as a means to the fulfillment of ends. It need not be allocated, as time is, to the satisfaction of the more important ends, since it is sufficiently abundant for all human requirements. Air, then, though indispensable, is not a means, but a *general condition* of human action and human welfare.

Secondly, these scarce means must be allocated by the actor to serve certain ends and leave other ends unsatisfied. This act of *choice* may be called *economizing* the means to serve the most

desired ends. Time, for example, must be economized by the actor to serve the most desired ends. The actor may be interpreted as ranking his alternative ends in accordance with their *value* to him. This scaling of ends may be described as assigning ranks of *value* to the ends by the actor, or as a process of *valuation*. Thus, suppose that Jones ranked his alternative ends for the use of an hour of time as follows:

(First)	1. Continuing to watch the baseball game
(Second)	2. Going for a drive
(Third)	3. Playing bridge

This was his *scale of values* or *scale of preferences*. The supply of means (time) available was sufficient for the attainment of only one of these ends, and the fact that he chose the baseball game shows that he ranked that highest (or first). Suppose now that he is allocating two hours of his time and can spend an hour on each pursuit. If he spends one hour on the game and then a second hour on the drive, this indicates that his ranking of preferences is as above. The lowest-ranking end—playing bridge—goes unfulfilled. Thus, the larger the supply of means available, the more ends can be satisfied and the lower the rank of the ends that must remain unsatisfied.

Another lesson to be derived is that *action* does not necessarily mean that the individual is “active” as opposed to “passive,” in the colloquial sense. Action does not necessarily mean that an individual must stop doing what he has been doing and do something else. He also acts, as in the above case, who chooses to continue in his previous course, even though the opportunity to change was open to him. Continuing to watch the game is just as much *action* as going for a drive.

Furthermore, action does not at all mean that the individual must take a great deal of time in deliberating on a decision to act. The individual may make a decision to act hastily, or after great deliberation, according to his desired choice. He may

decide on an action coolly or heatedly; none of these courses affects the fact that action is being taken.⁹

Another fundamental implication derived from the existence of human action is the *uncertainty of the future*. This must be true because the contrary would completely negate the possibility of action. If man knew future events completely, he would never act, since no act of his could change the situation. Thus, the fact of action signifies that the future is uncertain to the actors. This uncertainty about future events stems from two basic sources: the unpredictability of human acts of choice, and insufficient knowledge about natural phenomena. Man does not know enough about natural phenomena to predict all their future developments, and he cannot know the content of future human choices. All human choices are continually changing as a result of changing valuations and changing ideas about the most appropriate means of arriving at ends. This does not mean, of course, that people do not try their best to estimate future developments. Indeed, any actor, when employing means, estimates that he will thus arrive at his desired goal. But he never has certain knowledge of the future. All his actions are of necessity *speculations* based on his *judgment* of the course of future events. The omnipresence of uncertainty introduces the ever-present possibility of *error* in human action. The actor may find, after he has completed his action, that the means have been *inappropriate* to the attainment of his end.

To sum up what we have learned thus far about human action: The distinguishing characteristic of human beings is that all humans *act*. Action is purposeful behavior directed toward the attainment of ends in some future period which will involve the fulfillment of wants otherwise remaining unsatisfied. Action involves the expectation of a less imperfectly satisfied state as a result of the action. The individual actor chooses

⁹Some writers have unfoundedly believed that praxeology and economics assume that all action is cool, calculating, and deliberate.

to employ elements in his environment as means to the expected achievement of his ends, *economizing* them by directing them toward his most valued ends (leaving his least valued ones unsatisfied), and in the ways that his reason tells him are most appropriate to attain these ends. His method—his chosen means—may or may not turn out to be inappropriate.

3. *Further Implications: The Means*

The *means* to satisfy man's wants are called *goods*. These goods are all the objects of economizing action.¹⁰ Such goods may all be classified in either of two categories: (a) they are immediately and *directly serviceable* in the satisfaction of the actor's wants, or (b) they may be transformable into directly serviceable goods only at some point in the future—i.e., are *indirectly serviceable* means. The former are called *consumption goods* or *consumers' goods* or *goods of the first order*. The latter are called *producers' goods* or *factors of production* or *goods of higher order*.

Let us trace the relations among these goods by considering a typical human end: *the eating of a ham sandwich*. Having a desire for a ham sandwich, a man decides that this is a want that should be satisfied and proceeds to act upon his judgment of the methods by which a ham sandwich can be assembled. *The consumers' good* is the ham sandwich at the point of being eaten. It is obvious that there is a scarcity of this consumers' good as there is for all direct means; otherwise it would always be available, like air, and would not be the object of action. But if the consumers' good is scarce and not obviously available, how can it be made available? The answer is that man must rearrange various elements of his environment in order to *produce* the ham sandwich at the desired place—the consumers' good. In other words, man must use various *indirect* means as

¹⁰The common distinction between "economic goods" and "free goods" (such as air) is erroneous. As explained above, air is not a means, but a general condition of human welfare, and is not the object of action.

co-operating factors of production to arrive at the direct means. This necessary process involved in all action is called *production*; it is the use by man of available elements of his environment as indirect means—as co-operating factors—to arrive eventually at a consumers' good that he can use directly to arrive at his end.

Let us consider the pattern of some of the numerous co-operating factors that are involved in a modern developed economy to produce one ham sandwich as a consumers' good for the use of one consumer. Typically, in order to produce a ham sandwich for Jones in his armchair, it is necessary for his wife to expend energy in unwrapping the bread, slicing the ham, placing the ham between bread slices, and carrying it to Jones. All this work may be called the *labor* of the housewife. The co-operating factors that are directly necessary to arrive at the consumers' good are, then: the housewife's labor, bread in the kitchen, ham in the kitchen, and a knife to slice the ham. Also needed is the land on which to have room to live and carry on these activities. Furthermore, this process must, of course, take *time*, which is another indispensable co-operating factor. The above factors may be called *first-order producers' goods*, since, in this case, these co-operate in the production of the consumers' good. Many of the first-order producers' goods, however, are also unavailable in nature and must be *produced* themselves, with the help of other producers' goods. Thus, bread in the kitchen must be produced with the co-operation of the following factors: *bread-in-retail-shop* and *housewife's labor* in carrying it (plus the ever-present land-as-standing-room, and time). In this procedure, these factors are second-order producers' goods, since they co-operate in producing first-order goods. Higher-order factors are those co-operating in the production of factors of lower order.

Thus, any process (or *structure*) of production may be analyzed as occurring in different *stages*. In the *earlier* or "higher" stages, producers' goods must be produced that will later co-operate in producing other producers' goods that will finally

co-operate in producing the desired consumers' good. Hence, in a developed economy, the structure of production of a given consumers' good might be a very complex one and involve numerous stages.

Important general conclusions can, however, be drawn that apply to all processes of production. In the first place, each stage of production takes *time*. Secondly, the factors of production may all be divided into two classes: *those that are themselves produced*, and *those that are found already available in nature—in man's environment*. The latter may be used as indirect means without having been previously produced; the former must first be produced with the aid of factors in order to aid in the *later* (or "lower") stages of production. The former are the *produced factors of production*; the latter are the *original factors of production*. The original factors may, in turn, be divided into two classes: *the expenditure of human energy*, and *the use of nonhuman elements provided by nature*. The first is called *Labor*; the latter is *Nature* or *Land*.¹¹ Thus, the classes of factors of production are Labor, Land, and the produced factors, which are termed *Capital Goods*.

Labor and Land, in one form or another, enter into each stage of production. Labor helps to transform seeds into wheat, wheat into flour, pigs into ham, flour into bread, etc. Not only is Labor present at every stage of production, but so also is Nature. Land must be available to provide room at every stage of the process, and time, as has been stated above, is required for each stage. Furthermore, if we wish to trace each stage of production far enough back to original sources, we must arrive at a point where only labor and nature existed and there were no capital goods. This must be true by logical implication, since all capital goods must have been produced at earlier stages with the aid of labor. If we could trace each production process far

¹¹The term "land" is likely to be misleading in this connection because it is not used in the popular sense of the word. It includes such *natural* resources as water, oil, and minerals.

enough back in time, we must be able to arrive at the point—the earliest stage—where man combined his forces with nature unaided by produced factors of production. Fortunately, it is not necessary for human actors to perform this task, since action uses materials available in the present to arrive at desired goals in the *future*, and there is no need to be concerned with development in the *past*.

There is another unique type of factor of production that is indispensable in every stage of every production process. This is the “technological idea” of how to proceed from one stage to another and finally to arrive at the desired consumers’ good. This is but an application of the analysis above, namely, that for any action, there must be some *plan* or idea of the actor about how to use things as means, as definite pathways, to desired ends. Without such plans or ideas, there would be no action. These plans may be called *recipes*; they are ideas of recipes that the actor uses to arrive at his goal. A *recipe* must be present at each stage of each production process from which the actor proceeds to a later stage. The actor must have a recipe for transforming iron into steel, wheat into flour, bread and ham into sandwiches, etc.

The distinguishing feature of a recipe is that, *once learned*, it generally does not have to be learned again. It can be noted and remembered. Remembered, it no longer has to be produced; it remains with the actor as an *unlimited* factor of production that never wears out or needs to be economized by human action. It becomes a general condition of human welfare in the same way as air.¹²

It should be clear that the end of the production process—the consumers’ good—is valued because it is a direct means of satisfying man’s ends. The consumers’ good is *consumed*, and this act of *consumption* constitutes the satisfying of human wants.

¹²We shall not deal at this point with the complications involved in the original learning of any recipe by the actor, which is the object of human action.

This consumers' good may be a material object like bread or an immaterial one like friendship. Its important quality is not whether it is material or not, but whether it is valued by man as a means of satisfying his wants. This function of a consumers' good is called its *service* in ministering to human wants. Thus, the material bread is valued not for itself, but for its service in satisfying wants; just as an immaterial thing, such as music or medical care, is obviously valued for such service. All these services are "consumed" to satisfy wants. "Economic" is by no means equivalent to "material."

It is also clear that the factors of production—the various higher-order producers' goods—are *valued solely because of their anticipated usefulness in helping to produce future consumers' goods or to produce lower-order producers' goods that will help to bring about consumers' goods*. The valuation of factors of production is derived from actors' evaluation of their products (lower stages), all of which eventually derive their valuation from the end result—the consumers' good.¹³

Furthermore, the omnipresent fact of the scarcity of consumers' goods must be reflected back in the sphere of the factors of production. The scarcity of consumers' goods must imply a scarcity of their factors. If the factors were unlimited, then the consumers' goods would also be unlimited, which cannot be the case. This does not exclude the possibility that *some* factors, such as recipes, may be unlimited and therefore general conditions of welfare rather than scarce indirect means. But other factors at each stage of production must be in scarce supply, and this must account for the scarcity of the end product. Man's endless search for ways to satisfy his wants—i.e., to *increase his production of consumers' goods*—takes two forms: increasing his available supply of factors of production and improving his recipes.

¹³Cf. Carl Menger, *Principles of Economics* (Glencoe, Ill.: The Free Press, 1950), pp. 51–67.

Although it has seemed evident that there are several co-operating factors at each stage of production, it is important to realize that for each consumers' good *there must always be more than one scarce factor of production*. This is implied in the very existence of human action. It is impossible to conceive of a situation where only one factor of production produces a consumers' good or even advances a consumers' good from its previous stage of production. Thus, if the sandwich in the armchair did not require the co-operating factors at the previous stage (labor of preparation, carrying, bread, ham, time, etc.), then it would always be in the status of a consumers' good—sandwich-in-the-armchair. To simplify the example, let us suppose the sandwich already is prepared and in the kitchen. Then, to produce a consumers' good from this stage forward requires the following factors: (1) the sandwich; (2) carrying it to the armchair; (3) time; (4) the land available. If we assume that it required only one factor—the sandwich—then we would have to assume that the sandwich was magically and instantaneously moved from kitchen to armchair without effort. But in this case, the consumers' good would not have to be produced at all, and we would be in the impossible assumption of Paradise. Similarly, at each stage of the productive process, the good must have been produced by at least *more than one* (higher-order) scarce co-operating factor; otherwise this stage of production could not exist at all.

4. Further Implications: Time

Time is omnipresent in human action as a means that must be economized. Every action is related to time as follows:



FIGURE 1

. . . *A* is the period before the beginning of the action; *A* is the point in time at which the action begins; *AB* is the period during

which the action occurs; B is the point at which the action ends; and $B \dots$ is the period after the end of the action.

AB is defined as the *period of production*—the period from the beginning of the action to the time when the consumers' good is available. This period may be divided into various stages, each itself taking a period of time. The time expended during the period of production consists of the time during which *labor energy* is expended (*or working time*) and *maturing time*, i.e., time required without the necessity of concurrent expenditure of labor. An obvious example is the case of agriculture. There might be six months between the time the soil is tilled and the time the harvest is reaped. The total time during which labor must be expended may be three weeks, while the remaining time of over five months consists of the time during which the crop must mature and ripen by the processes of nature. Another example of a lengthy maturing time is the aging of wine to improve its quality.

Clearly, each consumers' good has its own period of production. The differences between the time involved in the periods of production of the various goods may be, and are, innumerable.

One important point that must be emphasized when considering action and the period of production is that acting man does *not* trace back past production processes to their original sources. In the previous section, we traced back consumers' goods and producers' goods to their original sources, demonstrating that all capital goods were *originally* produced solely by labor and nature. Acting man, however, is not interested in past processes, but only in using *presently available means* to achieve anticipated future ends. At any point in time, when he begins the action (say A), he has available to him: labor, nature-given elements, and *previously produced capital goods*. He begins the action at A expecting to reach his end at B . For *him*, the period of production is AB , since he is not concerned with the amount of time spent in past production of his capital goods or in the

methods by which they were produced.¹⁴ Thus, the farmer about to use his soil to grow crops for the coming season does not worry about whether or to what extent his soil is an original, nature-given factor or is the result of the improvements of previous land-clearers and farmers. He is not concerned about the previous time spent by these past improvers. He is concerned only with the capital (and other) goods in the present and the future. This is the necessary result of the fact that action occurs in the present and is aimed at the future. Thus, acting man considers and values the factors of production available in the present in accordance with their anticipated services in the future production of consumers' goods, and never in accordance with what has happened to the factors in the past.

A fundamental and constant truth about human action is that *man prefers his end to be achieved in the shortest possible time*. Given the specific satisfaction, the sooner it arrives, the better. This results from the fact that time is always scarce, and a means to be economized. The sooner any end is attained, the better. Thus, with any *given end* to be attained, the shorter the period of action, i.e., production, the more preferable for the actor. *This is the universal fact of time preference*. At any point of time, and for any action, the actor most prefers to have his end attained in the immediate present. Next best for him is the immediate future, and the further in the future the attainment of the end appears to be, the less preferable it is. *The less waiting time*, the more preferable it is for him.¹⁵

¹⁴For each actor, then, the period of production is equivalent to his *waiting time*—the time that he must expect to wait for his end after the commencement of his action.

¹⁵*Time preference* may be called the preference for *present satisfaction* over *future satisfaction* or *present good* over *future good*, provided it is remembered that it is the *same* satisfaction (or “good”) that is being compared over the periods of time. Thus, a common type of objection to the assertion of universal time preference is that, in the wintertime, a man will prefer the delivery of ice the next summer (future) to delivery of ice

Time enters into human action not only in relation to the waiting time in production, but also in *the length of time in which the consumers' good will satisfy the wants of the consumer*. Some consumers' goods will satisfy his wants, i.e., attain his ends, for a short period of time, others for a longer period. They can be consumed for shorter or longer periods. This may be included in the diagram of any action, as shown in Figure 2. This length of time, *BC*, is the *duration of serviceableness* of the consumers' good. It is the length of the time the *end* served by the consumers' good continues to be attained. This duration of serviceableness differs for each consumers' good. It may be four hours for the ham sandwich, after which period of time the actor desires other food or another sandwich. The builder of a house may expect to use it to serve his wants for 10 years. Obviously, the expected durative power of the consumers' good to serve his end will enter into the actor's plans.¹⁶

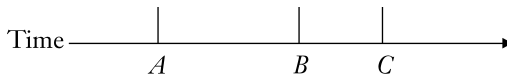


FIGURE 2. PERIOD OF PRODUCTION AND CONSUMPTION

Clearly, all other things being equal, the actor will prefer a consumers' good of greater durability to one of lesser, since the former will render more total service. On the other hand, if the

in the present. This, however, confuses the concept "good" with the material properties of a thing, whereas it actually refers to subjective satisfactions. Since ice-in-the-summer provides different (and greater) satisfactions than ice-in-the-winter, they are *not* the same, but *different* goods. In this case, it is different satisfactions that are being compared, despite the fact that the *physical* property of the thing may be the same.

¹⁶It has become the custom to designate consumer goods with a longer duration of serviceableness as *durable goods*, and those of shorter duration as *nondurable goods*. Obviously, however, there are innumerable degrees of durability, and such a separation can only be unscientific and arbitrary.

actor values the total service rendered by two consumers' goods equally, he will, because of time preference, choose the less durable good since he will acquire its total services sooner than the other. He will have to wait less for the total services of the less durable good.

The concepts of period of production and duration of serviceableness are present in all human action. There is also a third time-period that enters into action. Each person has a general time-horizon, stretching from the present into the future, for which he plans various types of action. Whereas period of production and duration of serviceableness refer to specific consumers' goods and differ with each consumers' good, the *period of provision* (the time-horizon) is the length of future time for which each actor plans to satisfy his wants. The period of provision, therefore, includes planned action for a considerable variety of consumers' goods, each with its own period of production and duration. This period of provision differs from actor to actor in accordance with his choice. Some people live from day to day, taking no heed of later periods of time; others plan not only for the duration of their own lives, but for their children as well.

5. Further Implications

A. ENDS AND VALUES

All action involves the employment of scarce means to attain the most valued ends. Man has the choice of using the scarce means for various alternative ends, and the ends that he chooses are the ones he values most highly. The less urgent wants are those that remain unsatisfied. Actors can be interpreted as *ranking* their ends along a scale of values, or scale of preferences. These scales differ for each person, both in their content and in their orders of preference. Furthermore, they differ for the same individual at different times. Thus, at some other point in time, the actor mentioned in section 2 above might choose to go for a drive, or to go for a drive and then to play bridge,

rather than to continue watching the game. In that case, the ranking on his preference scale shifts to this order:

- (First) 1. Going for a drive
- (Second) 2. Playing bridge
- (Third) 3. Continuing to watch baseball game

Moreover, a new end might have been introduced in the meantime, so that the actor might enjoy going to a concert, and this may change his value scale to the following:

- (First) 1. Going for a drive
- (Second) 2. Going to a concert
- (Third) 3. Playing bridge
- (Fourth) 4. Continuing to watch baseball game

The choice of which ends to include in the actor's value scale and the assignment of rank to the various ends constitute the process of *value judgment*. Each time the actor ranks and chooses between various ends, he is making a judgment of their value to him.

It is highly useful to assign a *name* to this value scale held by all human actors. We are not at all concerned with the specific *content* of men's ends, but only with the fact that various ends are ranked in the order of their importance. These scales of preference may be called *happiness* or *welfare* or *utility* or *satisfaction* or *contentment*. Which name we choose for value scales is not important. At any rate, it permits us to say, whenever an actor has attained a certain end, that he has *increased* his state of satisfaction, or his contentment, happiness, etc. Conversely, when someone considers himself worse off, and fewer of his ends are being attained, his satisfaction, happiness, welfare, etc., have *decreased*.

It is important to realize that there is never any possibility of *measuring* increases or decreases in happiness or satisfaction. Not only is it impossible to measure or compare changes in the

satisfaction of different people; it is not possible to measure changes in the happiness of any given person. In order for any measurement to be possible, there must be an eternally fixed and objectively given unit with which other units may be compared. There is no such objective unit in the field of human valuation. The individual must determine subjectively for himself whether he is better or worse off as a result of any change. His preference can only be expressed in terms of simple choice, or *rank*. Thus, he can say, "I am better off" or "I am happier" because he went to a concert instead of playing bridge (or "I will be better off" for going to the concert), but it would be completely meaningless for him to try to assign units to his preference and say, "I am two and a half times happier because of this choice than I would have been playing bridge." Two and a half times *what*? There is no possible unit of happiness that can be used for purposes of comparison and, hence, of addition or multiplication. Thus, values cannot be measured; values or utilities cannot be added, subtracted, or multiplied. They can only be ranked as better or worse. A man may know that he is or will be happier or less happy, but not by "how much," not by a measurable quantity.¹⁷

All action is an attempt to exchange a less satisfactory state of affairs for a more satisfactory one. The actor finds himself (or expects to find himself) in a nonperfect state, and, by attempting to attain his most urgently desired ends, expects to be in a better state. He cannot measure the gain in satisfaction, but he does know which of his wants are more urgent than others, and

¹⁷Accordingly, the numbers by which ends are ranked on value scales are *ordinal*, not *cardinal*, numbers. Ordinal numbers are only ranked; they cannot be subject to the processes of measurement. Thus, in the above example, all we can say is that going to a concert is valued more than playing bridge, and either of these is valued more than watching the game. We cannot say that going to a concert is valued "twice as much" as watching the game; the numbers two and four cannot be subject to processes of addition, multiplication, etc.

he does know when his condition has improved. Therefore, *all action involves exchange*—an exchange of one state of affairs, X , for Y , which the actor anticipates will be a more satisfactory one (and therefore higher on his value scale). If his expectation turns out to be correct, the value of Y on his preference scale will be higher than the value of X , and he has made a *net gain* in his state of satisfaction or utility. If he has been in error, and the value of the state that he has given up— X —is higher than the value of Y , he has suffered a *net loss*. This psychic gain (or *profit*) and loss cannot be measured in terms of units, but the actor always knows whether he has experienced psychic profit or psychic loss as a result of an action-exchange.¹⁸

Human actors value *means* strictly in accordance with their valuation of the ends that they believe the means can serve. Obviously, consumers' goods are graded in value in accordance with the ends that men expect them to satisfy. Thus, the value placed on the enjoyment contributed by a ham sandwich or a house will determine the value a man will place on the ham sandwich or the house themselves. Similarly, producers' goods are valued in accordance with their expected contribution in producing consumers' goods. Higher-order producers' goods are valued in accordance with their anticipated service in forming lower-order producers' goods. Hence, those consumers' goods serving to attain more highly valued ends will be valued more highly than those serving less highly valued ends, and those producers' goods serving to produce more highly valued consumers' goods will themselves be valued more highly than other producers' goods. Thus, the *process of imputing values to goods* takes place in the opposite direction to that of the process of production. Value proceeds from the ends to the consumers' good to the various

¹⁸An example of suffering a loss as a result of an erroneous action would be going to the concert and finding that it was not at all enjoyable. The actor then realizes that he would have been much happier continuing to watch the game or playing bridge.

first-order producers' goods, to the second-order producers' goods, etc.¹⁹ The original source of value is the ranking of ends by human actors, who then impute value to consumers' goods, and so on to the orders of producers' goods, in accordance with their expected ability to contribute toward serving the various ends.²⁰

B. THE LAW OF MARGINAL UTILITY

It is evident that things are valued as means in accordance with their ability to attain ends valued as more or less urgent. *Each physical unit of a means* (direct or indirect) that enters into human action is valued separately. Thus, the actor is interested in evaluating only those units of means that enter, or that he considers will enter, into his concrete action. Actors choose between, and evaluate, not "coal" or "butter" in general, but specific units of coal or butter. In choosing between acquiring cows or horses, the actor does not choose between the class of cows and the class of horses, but between specific units of them—e.g., two cows versus three horses. Each unit that enters into concrete action is graded and evaluated separately. Only when several units together enter into human action are all of them evaluated together.

The processes that enter into valuation of specific units of different goods may be illustrated in this example:²¹ An individual possessing two cows and three horses might have to choose between giving up one cow or one horse. He may decide in this case to keep the horse, indicating that in this state of his stock,

¹⁹A large part of this book is occupied with the problem of how this process of value imputation can be accomplished in a modern, complex economy.

²⁰This is the solution of a problem that plagued writers in the economic field for many years: the source of the value of goods.

²¹Cf. Ludwig von Mises, *The Theory of Money and Credit* (New Haven: Yale University Press, 1953), p. 46.

a horse is more valuable to him than a cow. On the other hand, he might be presented with the choice of keeping either his entire stock of cows or his stock of horses. Thus, his stable and cowshed might catch fire, and he is presented with the choice of saving the inhabitants of one or of the other building. In this case, two cows might be more valuable to him than three horses, so that he will prefer to save the cows. When deciding between units of his stock, the actor may therefore prefer good *X* to good *Y*, while he may choose good *Y* if he must act upon his *whole stock of each good*.

This process of valuation according to the specific units involved provides the solution for the famous "value paradox" which puzzled writers for centuries. The question was: How can men value bread less than platinum, when "bread" is obviously more useful than "platinum"? The answer is that acting man does not evaluate the goods open to him by abstract classes, but in terms of the specific units available. He does not wonder whether "bread-in-general" is more or less valuable to him than "platinum-in-general," but whether, given the present available stock of bread and platinum, a "loaf of bread" is more or less valuable to him than "an ounce of platinum." That, in most cases, men prefer the latter is no longer surprising.²²

As has been explained above, value, or utility, cannot be measured, and therefore cannot be added, subtracted, or multiplied. This holds for specific units of the same good in the same way as it holds for all other comparisons of value. Thus, if butter is an object serving human ends, we know that two pounds of butter will be valued more highly than one pound. This will be true until a point is reached when the butter is available in unlimited quantities to satisfy human wants and

²²Also cf. T.N. Carver, *The Distribution of Wealth* (New York: Macmillan & Co., 1904), pp. 4–12. See below for a further discussion of the influences on man's valuation of specific units resulting from the size of the available stock.

will then be transferred from the status of a means to that of a general condition of human welfare. However, we *cannot* say that two pounds of butter are “twice as useful or valuable” as one pound.

What has been involved in this key concept of “specific units of a good”? In these examples, the units of the good have been *interchangeable from the point of view of the actor*. Thus, any concrete pound of butter was evaluated in this case perfectly equally with any other pound of butter. Cow A and cow B were valued equally by the individual, and it made no difference to him which cow he was faced with the choice of saving. Similarly, horse A was valued equally with horse B and with horse C, and the actor was not concerned which particular horse he had to choose. When a commodity is in such a way available in *specific homogeneous units equally capable of rendering the same service to the actor*, this available stock is called a *supply*. A *supply of a good* is available in specific units each perfectly substitutable for every other. The individual above had an available supply of two cows and three horses, and a supply of pounds of butter.

What if one pound of butter was considered by the actor as of better quality than another pound of butter? In that case, the two “butters” are really *different goods* from the point of view of the actor and will be evaluated differently. The two pounds of butter are now two different goods and are no longer two units of a supply of one good. Similarly, the actor must have valued each horse or each cow identically. If he preferred one horse to each of the others, or one cow to the other, then they are no longer units of the supply of the same good. No longer are his horses interchangeable for one another. If he grades horse A above the others and regards horses B and C indifferently, then he has supplies of two different goods (omitting the cows): say, “Grade A horses—one unit”; and “Grade B horses—two units.” If a specific unit is differently evaluated from all other units, then the supply of that good is only one unit.

Here again, it is very important to recognize that what is significant for human action is *not* the physical property of a good, but the evaluation of the good by the actor. Thus, physically there may be no discernible difference between one pound of butter and another, or one cow and another. But if the actor chooses to evaluate them differently, they are no longer part of the supply of the same good.

The interchangeability of units in the supply of a good does not mean that the concrete units are actually valued equally. They may and will be valued differently whenever their *position in the supply* is different. Thus, suppose that the isolated individual successively finds one horse, then a second, then a third. Each horse may be identical and interchangeable with the others. The first horse will fulfill the most urgent wants that a horse can serve; this follows from the universal fact that action uses scarce means to satisfy the most urgent of the not yet satisfied wants. When the second horse is found, he will be put to work satisfying the most urgent of the wants remaining. These wants, however, must be ranked lower than the wants that the previous horse has satisfied. Similarly, the third horse acquired might be capable of performing the same service as the others, but he will be put to work fulfilling the highest of the remaining wants—which, however, will yet be lower in value than the others.

The important consideration is the *relation between the unit to be acquired or given up and the quantity of supply (stock) already available to the actor*. Thus, if no units of a good (whatever the good may be) are available, the first unit will satisfy the most urgent wants that such a good is capable of satisfying. If to this supply of one unit is added a second unit, the latter will fulfill the most urgent wants remaining, but these will be less urgent than the ones the first fulfilled. Therefore, the value of the second unit to the actor will be less than the value of the first unit. Similarly, the value of the third unit of the supply (added to a stock of two units) will be less than the value of the second unit. It may not matter to the individual *which* horse is chosen first and which second, or *which* pounds of butter he consumes, but

those units which he does use first will be the ones that he values more highly. *Thus, for all human actions, as the quantity of the supply (stock) of a good increases, the utility (value) of each additional unit decreases.*

Let us now consider a supply from the point of view of a possible *decrease*, rather than an increase. Assume that a man has a supply of six (interchangeable) horses. They are engaged in fulfilling his wants. Suppose that he is now faced with the necessity of giving up one horse. It now follows that this smaller stock of means is not capable of rendering as much service to him as the larger supply. This stems from the very existence of the good as a means.²³ Therefore, *the utility of X units of a good is always greater than the utility of $X - 1$ units.* Because of the impossibility of measurement, it is impossible to determine *by how much greater* one value is than the other. Now, the question arises: Which utility, which end, does the actor give up because he is deprived of one unit? Obviously, he gives up the *least urgent of the wants which the larger stock would have satisfied*. Thus, if the individual was using one horse for pleasure riding, and he considers this the least important of his wants that were fulfilled by the six horses, the loss of a horse will cause him to give up pleasure riding.

The principles involved in the utility of a supply may be illustrated in the following value-scale diagram (Figure 3). We are considering any given means, which is divisible into homogeneous units of a supply, each interchangeable and capable of giving service equal to that of the other units. The supply must be scarce in relation to the ends that it is capable of fulfilling; otherwise it would not be a good, but a condition of human welfare. We assume for simplicity that there are 10 ends which

²³This would not be true only if the “good” were not a means, but a general condition of human welfare, in which case one less unit of supply would make no difference for human action. But in that case it would not be a *good*, subject to the economizing of human action.

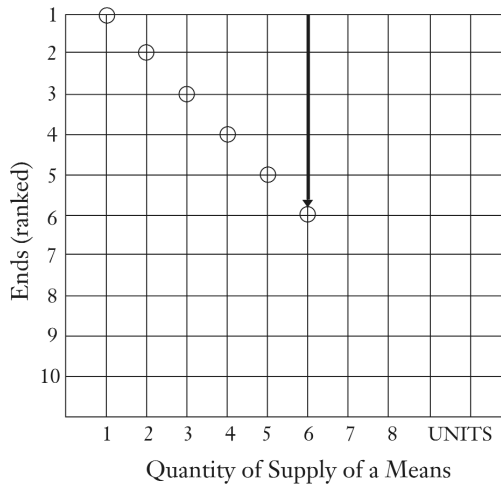


FIGURE 3. VALUE-SCALE DIAGRAM

the means could fulfill, and that each unit of means is capable of serving one of the ends. If the supply of the good is 6 units, then the first six ends, ranked in order of importance by the valuing individual, are the ones that are being satisfied. Ends ranked 7–10 remain unsatisfied. If we assume that the stock arrived in successive units, then the first unit went to satisfy end 1, the second unit was used to serve end 2, etc. The sixth unit was used to serve end 6. The dots indicate how the units were used for the different ends, and the arrow indicates the direction the process took, i.e., that the most important ends were served first; the next, second, etc. The diagram illustrates the aforementioned laws that the utility (value) of more units is greater than the utility of fewer units and that the utility of each successive unit is less as the quantity of the supply increases.

Now, suppose the actor is faced with the necessity of giving up one unit of his stock. His total will be 5 instead of 6 units. Obviously, he gives up satisfying the end ranked sixth, and continues to satisfy the more important ends 1–5. As a result of the interchangeability of units, it does not matter to him *which* of

the six units he must lose; the point is that he will give up serving this sixth end. Since action considers only the present and the future not the past, it does not matter to him *which* units he acquired first in the past. He deals only with his presently available stock. In other words, suppose that the sixth horse that he had previously acquired (named “Seabiscuit”) he had placed in the service of pleasure riding. Suppose that he now must lose another horse (“Man o’ War”) which had arrived earlier, and which was engaged in the more important duty (to him) of leading a wagon. He will still give up end 6 by simply transferring Seabiscuit from this function to the wagon-leading end. This consequence follows from the defined interchangeability of units and from disregard of past events which are of no consequence for the present and the future.

Thus, the actor gives up the lowest-ranking want that the original stock (in this case, six units) was capable of satisfying. This one unit that he must consider giving up is called *the marginal unit*. It is the unit “at the margin.” This least important end fulfilled by the stock is known as the *satisfaction provided by the marginal unit*, or the *utility of the marginal unit*—in short: the marginal satisfaction, or *marginal utility*. If the marginal unit is one unit, then the *marginal utility of the supply* is the end that must be given up as the result of a loss of the unit. In Figure 3, the marginal utility is ranked sixth among the ends. If the supply consisted of four units, and the actor were faced with the necessity of giving up one unit, then the value of the marginal unit, or the *marginal utility*, would have a rank of four. If the stock consisted of one unit, and this had to be given up, the value of the marginal unit would be one—the value of the highest-ranked end.

We are now in a position to complete an important law indicated above, but with different phraseology: *The greater the supply of a good, the lower the marginal utility; the smaller the supply, the higher the marginal utility*. This fundamental law of economics has been derived from the fundamental axiom of human

action; it is the *law of marginal utility*, sometimes known as the *law of diminishing marginal utility*. Here again, it must be emphasized that “utility” is not a cardinal quantity subject to the processes of measurement, such as addition, multiplication, etc. It is a *ranked number* expressible only in terms of higher or lower order in the preferences of men.

This law of marginal utility holds for all goods, regardless of the size of the unit considered. The size of the unit will be the one that enters into concrete human action, but whatever it is, the same principle applies. Thus, if in certain situations, the actor must consider only *pairs of horses* as the units to add or subtract from his stock, instead of the individual horses, he will construct a new and shorter scale of ends with fewer units of supply to consider. He will then go through a similar process of assigning means to serve ends and will give up the least valued end should he lose a unit of supply. The ends will simply be ranked in terms of the alternative uses of pairs of horses, instead of single horses.

What if a good cannot be divided into homogeneous units for purposes of action? There are cases where the good must be treated as a whole in human action. Does the law of marginal utility apply in such a case? The law does apply, since we then treat the supply as consisting of *one unit*. In this case, the marginal unit is equal in size to the total supply possessed or desired by the actor. The value of the marginal unit is equal to the *first rank of the ends which the total good could serve*. Thus, if an individual must dispose of his whole stock of six horses, or acquire a stock of six horses together, the six horses are treated as one unit. The marginal utility of his supply would then be equal to the first-ranking end that the unit of *six horses* could supply.

If, as above, we consider the case of *additions* instead of decreases to stock, we recall that the law derived for this situation was that as the quantity of supply increases, the utility of each additional unit decreases. Yet this additional unit is precisely the *marginal unit*. Thus, if instead of decreasing the supply from six

to five horses, we *increase* it from five to six, the value of the additional horse is equal to the value of the sixth-ranking end—say, pleasure riding. This is the same marginal unit, with the same utility, as in the case of decreasing the stock from six to five. Thus, the law derived previously was simply another form of the law of marginal utility. The greater the supply of a good, the lower the marginal utility; the smaller the supply, the higher the marginal utility. This is true whether or not the marginal unit is the unit of decrease of stock or the unit of addition to stock, when these are considered by the actor. If a man's supply of a good equals X units, and he is considering the addition of one unit, this is the marginal unit. If his supply is $X + 1$ units, and he is considering the loss of one unit, this too is his marginal unit, and its value is identical with the former (provided that his ends and their ranking are the same in both cases).

We have dealt with the laws of utility as they apply to each good treated in human action. Now we must indicate the relationship among various goods. It is obvious that more than one good exists in human action. This has already been definitely proven, since it was demonstrated that more than one factor of production, hence more than one good, must exist. Figure 4 below demonstrates the relationship between the various goods in human action. Here the value scales of two goods are considered— X and Y . For each good, the law of marginal utility holds, and the relation between supply and value is revealed in the diagram for each good. For simplicity, let us assume that X is horses and Y cows, and that the value scales representing those held by the individual are as follows (horizontal lines are drawn through each end to demonstrate the relationship in the ranking of the ends of the two goods): End $Y-1$ is ranked highest (say, cow one); then ends $X-1$, $X-2$, and $X-3$ (horses one, two, and three); $Y-2$; $Y-3$; $X-4$; $Y-4$; $X-5$; $Y-5$; $X-6$; $X-7$; $Y-6$; $Y-7$.

Now, the man's value scales will reveal his choices involving alternatives of action in regard to these two goods. Suppose

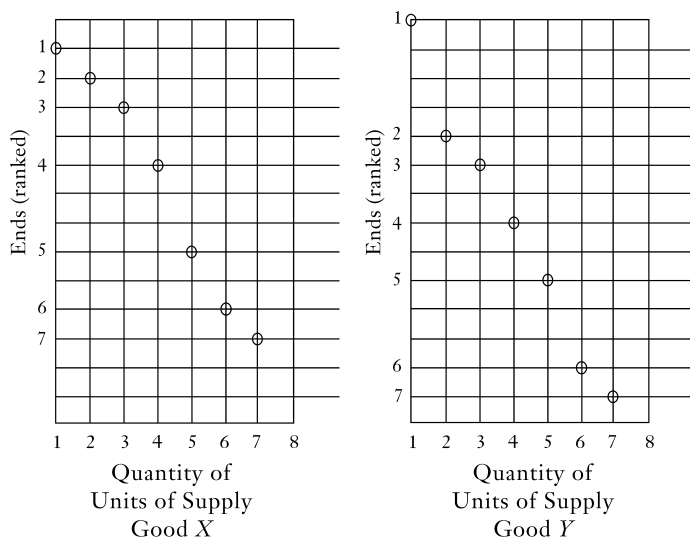


FIGURE 4. VALUE SCALES

that his stock is: 3Y (cows) and 4X (horses). He is faced with the alternative of giving up *either one cow or one horse*. He will choose the alternative that will deprive him of the least valued end possible. Since the marginal utility of each good is equal to the value of the least important end of which he would be deprived, *he compares the marginal utility of X with the marginal utility of Y*. In this case, the marginal unit of X has a rank of X-4, and the marginal unit of Y has a rank of Y-3. But the end Y-3 is ranked higher on his value scale than X-4. Hence, the marginal utility of Y is in this case higher than (or greater than) the marginal utility of X. Since he will give up the lowest possible utility, he will give up one unit of X. *Thus, presented with a choice of units of goods to give up, he will give up the good with units of lowest marginal utility on his value scale*. Suppose another example: that his stock is three horses and two cows. He has the alternative of giving up 1X or 1Y. In this case, the marginal utility of X is ranked at Y-2, and that of X is ranked at X-3. But X-3 occupies a higher position on his value scale than Y-2, and therefore

the marginal utility of Y is at this point lower than the marginal utility of X . He gives up a unit of Y .

The converse occurs if the man must choose between the alternative of *increasing* his stock by either one unit of X or one unit of Y . Thus, suppose that his stock is four units of X and four units of Y . He must choose between adding one horse or one cow. He then compares the marginal utility of increase, i.e., the value of the most important of the not yet satisfied wants. The marginal utility of X is then ranked at $X-5$; of Y at $Y-5$. But $X-5$ ranks higher than $Y-5$ on his value scale, and he will therefore choose the former. *Thus, faced with the choice of adding units of goods, he will choose the unit of highest marginal utility on his value scale.*

Another example: Previously, we saw that the man in a position of $(4X, 3Y)$ would, if faced with the choice of giving up one unit of either X or Y , give up the unit of X , with a lower marginal utility. In other words, he would prefer a position of $(3X, 3Y)$ to $(4X, 2Y)$. Now suppose he is in a position of $(3X, 3Y)$ and faced with the choice of adding one unit of X or one unit of Y . Since the marginal utility of the increased X is greater than that of Y , he will choose to add the unit of X and to arrive at a position of $(4X, 3Y)$ rather than $(3X, 4Y)$. The reader can work out the hypothetical choices for all the possible combinations of the actor's stock.

It is evident that in the act of choosing between giving up or adding units of either X or Y , the actor must have, in effect, placed both goods on a *single, unitary value scale*. Unless he could place X and Y on *one* value scale for comparison, he could not have determined that the marginal utility of the fourth unit of X was higher than that of the fourth unit of Y . The very fact of action in choosing between more than one good implies that the units of these goods must have been ranked for comparison on one value scale of the actor. The actor may not and cannot *measure* differences in utility, but he must be engaged in ranking all the goods considered on one value scale. Thus, we

should actually consider the ends served by the two means as ranked on one value scale as follows:

Ends (Ranked)

- 1 — Y-1
- 2 — X-1
- 3 — X-2
- 4 — X-3
- 5 — Y-2
- 6 — Y-3
- 7 — X-4
- 8 — Y-4
- 9 — X-5
- 10 — Y-5
- 11 — X-6
- 12 — X-7
- 13 — Y-6
- 14 — Y-7

These principles permit of being extended from two to any number of goods. Regardless of the number of goods, any man will always have a certain combination of units of them in his stock. He may be faced with the choice of giving up one unit of any good that he might choose. By ranking the various goods and the ends served by the relevant units, the actor will give up the unit of that good of which the marginal utility to him is the lowest. Similarly, with any given combination of goods in his stock, and faced with the choice of adding one unit of any of the goods available, the actor will choose that good whose marginal utility of increase will be highest. In other words, all the goods are ranked on one value scale in accordance with the ends they serve.

If the actor has no units of some goods in his possession, this does not affect the principle. Thus, if he has no units of X or Y in his possession, and he must choose between adding a unit of

X or one unit of Y , he will choose the marginal unit of greatest utility, in this case, Y . The principle is easily extended to the case of n goods.

It must be reiterated here that value scales do not exist in a void apart from the concrete choices of action. Thus, if the actor has a stock of ($3X$, $4Y$, $2Z$, etc.), his choices for adding and subtracting from stock take place in this region, and there is no need for him to formulate hypothetical value scales to determine what his choices would have been if his stock were ($6X$, $8Y$, $5Z$, etc.). No one can predict with certainty the course of his choices except that they will follow the law of marginal utility, which was deduced from the axiom of action.

The solution of the value paradox mentioned above is now fully clear. If a man prefers one ounce of platinum to five loaves of bread, he is choosing between units of the two goods based on the supply available. On the basis of the available supply of platinum and of bread, the marginal utility of a unit of platinum is greater than the marginal utility of a unit of bread.²⁴

6. *Factors of Production: The Law of Returns*

We have concluded that the value of each unit of any good is equal to its marginal utility at any point in time, and that this value is determined by the relation between the actor's scale of wants and the stock of goods available. We know that there are two types of goods: consumers' goods, which directly serve human wants, and producers' goods, which aid in the process of production eventually to produce consumers' goods. It is clear that the utility of a consumers' good is the end directly served. The utility of a producers' good is its contribution in producing consumers' goods. With value imputed backward from ends to consumers' goods through the various orders of producers'

²⁴On the whole subject of marginal utility, see Eugen von Böhm-Bawerk, *The Positive Theory of Capital* (New York: G.E. Stechert, 1930), pp. 138–65, especially pp. 146–55.

CHAPTER 8

Fundamentals of Value and Price

Ludwig von Mises (1881–1973) was born on September 29, 1881, in the city of Lemberg (present day Ukraine), then part of the Austro-Hungarian Empire, where his father, Arthur Edler von Mises, a distinguished construction engineer working for the Austrian railroads, was stationed. Growing up in Vienna, Mises entered the University of Vienna at the turn of the century to study for his graduate degree in law and economics. He died October 10, 1973, in New York City.

Mises was born and grew up during the high tide of the great “Austrian school” of economics, and neither Mises nor his vital contributions to economic thought can be understood apart from the Austrian school tradition which he studied and absorbed.

By the latter half of the nineteenth century, it was clear that “classical economics,” which had reached its apogee in England in the persons of David Ricardo and John Stuart Mill, had foundered badly on the shoals of several fundamental flaws. The critical flaw was that classical economics had attempted to analyze the economy in terms of “classes” rather than the actions of individuals. As a result, the classical economists could not find the correct explanation of the underlying forces determining the values and

Reprinted from *The Essential von Mises* (1973); reprinted in *Scholar, Creator, Hero* (1988); and *The Essential von Mises* (Auburn, Ala.: Mises Institute, 2009), pp. 3–11.

relative prices of goods and services; nor could they analyze the actions of consumers, the crucial determinants of the activities of producers in the economy. Looking at “classes” of goods, for example, the classical economists could never resolve the “paradox of value”: the fact that bread, while extremely useful and the “staff of life,” had a low value on the market; whereas diamonds, a luxury and hence a mere frippery in terms of human survival, had a very high value on the market. If bread is clearly more useful than diamonds, then why is bread rated so much more cheaply on the market?

Despairing at explaining this paradox, the classical economists unfortunately decided that values were fundamentally split: that bread, though higher in “use value” than diamonds, was for some reason lower in “exchange value.” It was out of this split that later generations of writers denounced the market economy as tragically misdirecting resources into “production for profit” as opposed to the far more beneficial “production for use.”

Failing to analyze the actions of consumers, classical economists earlier than the Austrians could not arrive at a satisfactory explanation of what it was that determined prices on the market. Groping for a solution, they unfortunately concluded (a) that value was something inherent in commodities; (b) that value must have been conferred on these goods by the processes of production; and (c) that the ultimate source of value was production “cost” or even the quantity of labor hours incurred in such production.

It was this Ricardian analysis that later gave rise to Karl Marx’s perfectly logical conclusion that since all value was the product of the quantity of labor hours, then all interest and profit obtained by capitalists and employers must be “surplus value” unjustly extracted from the true earnings of the working class.

Having thus given hostage to Marxism, the later Ricardians attempted to reply that capital equipment was productive and therefore reasonably earned its share in profits; but the Marxians could with justice offer the rebuttal that capital too was “embodied” or “frozen” labor, and that therefore wages should have absorbed the entire proceeds from production.

The classical economists did not have a satisfactory explanation or justification for profit. Again treating the share of proceeds from production purely in terms of “classes,” the Ricardians could only see a continuing “class struggle” between “wages,” “profits,” and “rents,” with workers, capitalists, and landlords eternally warring over their respective shares.

Thinking only in terms of aggregates, the Ricardians tragically separated the questions of “production” and “distribution,” with distribution a matter of conflict between these combating classes. They were forced to conclude that if wages went up, it could only be at the expense of lower profits and rents, or vice versa. Again, the Ricardians gave hostages to the Marxian system.

Looking at classes rather than individuals, then, the classical economists not only had to abandon any analysis of consumption and were misled in explaining value and price; they could not even approach an explanation of the pricing of individual factors of production: of specific units of labor, land, or capital goods. As the nineteenth century passed its mid-mark, the defects and fallacies of Ricardian economics became even more glaring. Economics itself had come to a dead end.

It has often happened in the history of human invention that similar discoveries are made at the same time purely independently by people widely separated in space and condition. The solution of the aforementioned paradoxes appeared, purely independently and in different forms, in the same year, 1871: by William Stanley Jevons in England; by Léon Walras in Lausanne, Switzerland; and by Carl Menger in Vienna. In that year, modern, or “neo-classical,” economics was born. Jevons’s solution and his new economic vision was fragmented and incomplete; furthermore, he had to battle against the enormous prestige that Ricardian economics had accumulated in the tight intellectual world of England. As a result, Jevons had little influence and attracted few followers. Walras’s system also had little influence at the time; as we shall see in what follows, it was unfortunately reborn in later years to form the basis of the fallacies of current “microeconomics.” By far the outstanding vision and solution of the three neo-classicists was that of Carl Menger,¹ professor of economics at the University of Vienna. It was Menger who founded the “Austrian school.”

Menger’s pioneering work bore full fruition in the great systematic work of his brilliant student, and his successor at the University of Vienna, Eugen von Böhm-Bawerk. It was Böhm-Bawerk’s monumental work, written

¹See Carl Menger’s *Principles of Economics*, James Dingwall and Bert F. Hoselitz, trans. (Glencoe, Ill.: The Free Press, 1950); reprinted 2007 (Auburn, Ala.: Ludwig von Mises Institute); original German edition, *Grundsätze der Volkswirtschaftslehre* (1871). See also Menger’s *Problems of Economics and Sociology*, Francis J. Nock, trans. (Urbana: University of Illinois Press, 1963); original German edition, *Untersuchungen über die Methode der Socialwissenschaften und der Politischen Oekonomie insbesondere* (1883).

largely during the 1880s, and culminating in his three-volume *Capital and Interest*,² that formed the mature product of the Austrian school. There were other great and creative economists who contributed to the Austrian school during the last two decades of the nineteenth century; notably Böhm-Bawerk's brother-in-law, Friedrich von Wieser, and to some extent the American economist John Bates Clark; but Böhm-Bawerk towered above them all.

The Austrian, or Menger–Böhm-Bawerkian, solutions to the dilemmas of economics were far more comprehensive than those by the Ricardians, because the Austrian solutions were rooted in a completely contrasting epistemology. The Austrians unerringly centered their analysis on the *individual*, on the acting individual as he makes his choices on the basis of his preferences and values in the real world. Starting from the individual, the Austrians were able to ground their analysis of economic activity and production in the values and desires of the individual *consumers*. Each consumer operated from his own chosen scale of preferences and values; and it was these values that interacted and combined to form the consumer demands that form the basis and the direction for all productive activity. Grounding their analysis in the individual as he faces the real world, the Austrians saw that productive activity was based on the expectations of serving the demands of consumers.

Hence, it became clear to the Austrians that no productive activity, whether of labor or of any productive factors, could confer value upon goods or services. Value consisted in the subjective valuations of the individual consumers. In short, I could spend thirty years of labor time and other resources working on the perfection of a giant steam-powered tricycle. If, however, on offering this product no consumers can be found to purchase this tricycle, it is economically valueless, regardless of the misdirected effort that I had expended upon it. Value is consumer valuations,

²See Eugen von Böhm-Bawerk's three-volume *Capital and Interest*: vol. I, *History and Critique of Interest Theories*; vol. II, *Positive Theory of Capital*; vol. III, *Further Essays on Capital and Interest*, George D. Huncke and Hans F. Sennholz, trans. (Grove City, Penn.: Libertarian Press, 1959); this was the first complete English translation of the third and fourth German editions. German title for Böhm-Bawerk's *opus* is, *Kapital und Kapitalzins* (first edition of vol. I in 1884 and vol. II in 1889; second edition of vol. I in 1900 and vol. II in 1902; third and completely revised edition of vol. I in 1914 and part of vols. II and III in 1909; balance of vols. II and III in 1912; fourth (posthumous) edition, I, II, III in 1921).

and the relative prices of goods and services are determined by the extent and intensity of consumer valuations and desires for these products.³

Looking clearly at the individual rather than at broad “classes,” the Austrians could easily resolve the “value paradox” that had stumped classicists. For no individual on the market is ever faced with the choice between “bread” as a class and “diamonds” as a class. The Austrians had shown that the greater the quantity—the larger the number of units—of a good that anyone possesses, the *less* he will value any given unit. The man stumbling through the desert, devoid of water, will place an extremely high value of “utility” on a cup of water: whereas the same man in urban Vienna or New York, with water plentiful around him, will place a very low valuation or “utility” on any given cup. Hence the *price* he will pay for a cup of water in the desert will be enormously greater than in New York City. In short, the acting individual is faced with, and chooses in terms of, specific units, or “margins”; and the Austrian finding was termed the “law of diminishing marginal utility.” The reason that “bread” is so much cheaper than “diamonds” is that the number of loaves of bread available is enormously greater than the number of carats of diamonds: hence the value, and the price, of *each loaf* will be far less than the value and price of *each carat*. There is no contradiction between “use value” and “exchange value”; given the abundance of loaves available, each loaf is less “useful” than each carat of diamond to the individual.

The same concentration on the actions of the individual, and hence on “marginal analysis,” also solved the problem of the “distribution” of income on the market. The Austrians demonstrated that each unit of a factor of production, whether of different types of labor, of land, or of capital equipment, is priced on the free market on the basis of its “marginal productivity”: in short, on how much that unit actually contributes to the value of the final product purchased by the consumers. The greater the “supply,” the quantity of units of any given factor, the less will its marginal productivity—and hence its price—tend to be; and the lower its supply, the higher will tend to be its price. Thus, the Austrians showed that there was no senseless and arbitrary class struggle or conflict between the different classes of factors; instead, each type of factor contributes harmoniously to the final product, directed to satisfying the most intense desires of the consumers in the most efficient manner (i.e., in the manner least costly

³See Eugen von Böhm-Bawerk, “The Ultimate Standard of Value” in *Shorter Classics of Böhm-Bawerk* (Grove City, Penn.: Libertarian Press, 1962).

of resources). Each unit of each factor then earns its marginal product, its own particular contribution to the productive result. In fact, if there was any conflict of interests, it was not between types of factors, between land, labor, and capital; it was between competing suppliers of the *same* factor. If, for example, someone found a new supply of copper ore, the increased supply would drive down the price of copper; this could only work to the benefit and the earnings of the consumers and of the cooperating labor and capital factors. The only unhappiness might be among existing copper mine owners who found the price declining for their own product.

The Austrians thus showed that on the free market there is no separation whatever between “production” and “distribution.” The values and demands of consumers determine the final prices of the consumer goods, the goods purchased by consumers, which set the direction for productive activity, and in turn determine the prices of the cooperating units of factors: the individual wage rates, rents, and prices of capital equipment. The “distribution” of income was simply the consequence of the price of each factor. Hence, if the price of copper is 20 cents per pound, and a copper owner sells 100,000 pounds of copper, the owner will receive \$20,000 in “distribution”; if someone’s wage is \$4 an hour, and he works forty hours a week, he will receive \$160 per week, and so on.

What of profits and the problem of “frozen labor” (labor embodied in machinery)? Again working from analysis of the individual, Böhm-Bawerk saw that it was a basic law of human action that each person wishes to achieve his desires, his goals, as quickly as possible. Hence, each person will prefer goods and services in the present to waiting for these goods for a length of time in the future. A bird already in the hand will always be worth more to him than one bird in the bush. It is because of this basic primordial fact of “time preference” that people do not invest all their income in capital equipment so as to increase the amount of goods that will be produced in the future. For they must first attend to consuming goods now. But each person, in different conditions and cultures, has a different *rate* of time preference, of preferring goods now to goods later. The higher their rate of time preference, the greater the proportion of their income they will consume *now*; the lower the rate, the more they will save and invest in future production. It is the fact of time preference that results in interest and profit; and it is the degree and intensity of time preferences that will determine how high the rate of interest and profit will be.

Take, for example, the rate of interest on a loan. The scholastic philosophers of the Catholic Church, in the Middle Ages and in the early

modern period, were in their way excellent economists and analyzers of the market; but one thing they could never explain or justify was the simple charging of interest on a loan. They could understand gaining profits for risky investments; but they had learned from Aristotle that money itself was barren and unproductive. Therefore, how could pure interest on a loan (assuming no risk of default) be justified? Not being able to find the answer, the church and the scholastics discredited their approach in the eyes of worldly men by condemning as sinful “usury” all interest on a loan. It was Böhm-Bawerk who finally found the answer in the concept of time preference. For when a creditor lends \$100 to a debtor, in exchange for receiving \$106 a year from now, the two men are not exchanging the same things. The creditor is giving the debtor \$100 as a “present good,” money that the debtor can use at any time in the present. But the debtor is giving the creditor in exchange, not money, but an IOU, the *prospect* of receiving money one year from now. In short, the creditor is giving the debtor a “present good,” while the debtor is only giving the creditor a “future good,” money which the creditor will have to wait a year before he can make use of. And since the universal fact of time preference makes present goods worth more than future goods, the creditor will have to charge, and the debtor will be willing to pay, a premium for the present good. That premium is the rate of interest. How large that premium will be will depend on the rates of time preference of everyone in the market.

This is not all for Böhm-Bawerk went on to show how time preference determined the rate of business profit in the same way: in fact that the “normal” rate of business profit *is* the rate of interest. For when labor or land is employed in the process of production, the crucial fact is that they do not have to wait, as they would in the absence of capitalist employers, for their money until the product is produced and sold to the consumers. If there were no capitalist employers, then laborers and landowners would have to toil for months and years without pay, until the final product—the automobile or bread or washing machine—is sold to the consumers. But capitalists perform the great service of saving up money from their income ahead of time and then paying laborers and landowners *now*, while they are working; the capitalists then perform the function of waiting until the final product is sold to the consumers and then receiving their money. It is for this vital service that the laborers and landowners are more than willing to “pay” the capitalists their profit or interest. The capitalists, in short, are in the position of “creditors” who save and pay out present money, and then wait for their eventual return; the laborers and landowners are, in a

sense, “debtors” whose services will only bear fruit after a certain date in the future. Again, the normal rate of business profit will be determined by the height of the various rates of time preference.

Böhm-Bawerk also put this another way: capital goods are not simply “frozen labor”; they are *also* frozen *time* (and land); and it is in the crucial element of time and time preference that the explanation for profit and interest can be found. He also enormously advanced the economic analysis of capital; for in contrast not only to Ricardians but also to most economists of the present day, he saw that “capital” is not simply a homogeneous blob,⁴ or a given quantity. Capital is an intricate latticework that has a time-dimension; and economic growth and increasing productivity comes from adding not simply to the quantity of capital but to its time-structure, to building “longer and longer processes of production.” The lower people’s rate of time preference, the more they are willing to sacrifice consumption now on behalf of saving and investing in these longer processes that will yield a significantly greater return of consumer goods at some date *in the future*.

⁴See Böhm-Bawerk, *Capital and Interest*, vol. II, *Positive Theory of Capital*, pp. 1–118.

CHAPTER 9

Exchange and the Division of Labor

It is now time to bring other men into our Robinsonian idyll—to extend our analysis to interpersonal relations. The problem for our analysis is not simply more people: after all, we could simply postulate a world of a million Crusoes on a million isolated islands, and our analysis would not need to be expanded by one iota. The problem is to analyze the *interaction* of these people. Friday, for example, might land in another part of the island, and make contact with Crusoe, or he might land on a separate island, and then later construct a boat that could reach the other island.

Economics has revealed a great truth about the natural law of human interaction: that not only is *production* essential to man's prosperity and survival, but so also is exchange. In short, Crusoe, on his island or part thereof, might produce fish, while Friday, on his part, might grow wheat, instead of both trying to produce both commodities. By exchanging part of Crusoe's fish for some of Friday's wheat, the two men can greatly improve the amount of both fish and bread that both can enjoy.¹ This great gain for both men is made possible by two primordial facts of nature—natural

¹On the economic analysis of all this, see Murray N. Rothbard, *Man, Economy, and State* (Princeton, N.J.: D. Van Nostrand, 1962), chap. 2.

Reprinted from chapter 7 "Interpersonal Relations: Voluntary Exchange," in *The Ethics of Liberty* (New York: New York University Press, 1998), pp. 35–41.

laws—on which all of economic theory is based: (a) the great variety of skills and interests among individual persons; and (b) the variety of natural resources in geographic land areas. If all people were equally skilled and equally interested in all matters, *and* if all areas of land were homogeneous with all others, there would be no room for exchanges. But, in the world as it is, the opportunity for specialization in the best uses for land and people enables exchanges to multiply vastly and immensely to raise the productivity and the standard of living (the satisfaction of wants) of *all* those participating in exchange.

If anyone wishes to grasp how much we owe to the processes of exchange, let him consider what would happen in the modern world if every man were suddenly prohibited from exchanging anything with anyone else. Each person would be forced to produce all of his own goods and services himself. The utter chaos, the total starvation of the great bulk of the human race, and the reversion to primitive subsistence by the remaining handful of people, can readily be imagined.

Another remarkable fact of human action is that A and B can specialize and exchange for their mutual benefit *even if* one of them is superior to the other in *both lines* of production. Thus, suppose that Crusoe is superior to Friday in fish and wheat production. It still benefits Crusoe to concentrate on what he is *relatively* best at. If, for example, he is a far better fisherman than Friday but only a moderately better farmer, he can gain more of both products by concentrating on fishing, and then exchanging his produce for Friday's wheat. Or, to use an example from an advanced exchange economy, it will pay a physician to hire a secretary for typing, filing, etc., *even if* he is better at the latter jobs, in order to free his time for far more productive work. This insight into the advantages of exchange, discovered by David Ricardo in his Law of Comparative Advantage, means that, in the free market of voluntary exchanges, the "strong" do not devour or crush the "weak," contrary to common assumptions about the nature of the free-market economy. On the contrary, it is precisely on the free market where the "weak" reap the advantages of productivity because it benefits the "strong" to exchange with them.

The process of exchange enables man to ascend from primitive isolation to civilization: it enormously widens his opportunities and the market for his wares; it enables him to invest in machines and other "high-order capital goods"; it forms a pattern of exchanges—the free market—which enables him to calculate economically the benefits and the costs of highly complex methods and aggregates of production.

But economists too often forget, in contemplating the critical importance and the glories of the free market, *what* precisely is being exchanged. For apples are *not* simply being exchanged for butter, or gold for horses. What is really being exchanged is not the commodities themselves, but the *rights to ownership* of them. When Smith exchanges a bag of apples for Jones's pound of butter, he is actually transferring his *ownership rights* in the apples in exchange for the ownership rights to the butter, and vice versa. Now that Smith rather than Jones is the absolute controller of the butter, it is Smith who may eat it or not at his will; Jones now has nothing to say in its disposition, and is instead absolute owner of the apples.

Returning now to Crusoe and Friday, suppose that more people, C, D, E ... join Crusoe and Friday on the island. Each specializes in different products; gradually one particular product emerges—because of such qualities as high value, steady demand, ready divisibility—as a *medium of exchange*. For it is discovered that the use of a medium enormously expands the scope of exchanges and the wants that can be satisfied on the market. Thus, a writer or an economics teacher would be hard put to exchange his teaching or writing services for loaves of bread, parts of a radio, a piece of a suit, etc. A generally acceptable medium is indispensable for any extensive network of exchange and hence for any civilized economy.

Such a generally acceptable medium of exchange is defined as a *money*. It has generally been found, on the free market, that the best commodities for use as a money have been the precious metals, gold and silver. The exchange sequence now appears as follows: A, owning his body and his labor, finds land, transforms it, produces fish which he then owns; B uses his labor similarly to produce wheat, which he then owns; C finds land containing gold, transforms it, produces the gold which he then owns. C then exchanges the gold for other services, say A's fish. A uses the gold to exchange for B's wheat, etc. In short, the gold "enters circulation," i.e., its ownership is transferred from person to person, as it is used as a general medium of exchange. In each case, the exchangers transfer ownership rights, and, in each case, ownership rights are acquired in two ways and two ways only: (a) by finding and transforming resources ("producing"), and (b) by exchanging one's produce for someone else's product—including the medium of exchange, or "money" commodity. And it is clear that method (b) *reduces* logically to (a), for the only way a person can obtain something in exchange is by giving up his own product. In short, there is only one route to ownership of goods: production-and-exchange. If Smith

gives up a product in exchange for Jones's which Jones also acquired in a previous exchange, then *someone*, whether the person from whom Jones bought the product or someone else down the line, must have been the original finder—and—transformer of the resource.

A man then, can acquire "wealth"—a stock of useful capital or consumer goods—either by "producing" it himself, or by selling to its producer some other product in exchange. The exchange process reduces logically back to original production. Such production is a process by which a man "mixes his labor with the soil"—finding and transforming land resources *or*, in such cases as a teacher or writer, by producing and selling one's own labor services directly. Put another way: since all production of capital goods reduces ultimately back to the original factors of land and labor, all production reduces back either to labor services or to finding new and virgin land and putting it into production by means of labor energy.²

A man may also obtain wealth voluntarily in another way: through gifts. Thus Crusoe, upon stumbling on Friday at another end of the island, may give him some sustenance. In such a case, the giver receives, not another alienable good or service from the other party, but the psychic satisfaction of having done something for the receiver. In the case of a gift, also, the process of acquisition reduces back to production and exchange—and again ultimately to production itself, since a gift must be preceded by production, if not directly as in this case, then somewhere back down the line.

We have so far analyzed the exchange process for a multitude of exchanges of consumer goods. We must now complete our picture of the real world by analyzing exchanges along the structure of production. For exchanges in an advanced economy are not only "horizontal" (of consumer goods), but also "vertical": they proceed downward from the original transformation of land, down through the various types of capital goods, and finally to the ultimate state of consumption.

Let us consider a simple vertical pattern as it occurs in the exchange economy. Smith transforms land resources and constructs an axe; instead of using the axe to make another product, Smith, as a specialist in a vast exchange economy, sells his axe for gold (money). Smith, producer of the

²That capital goods reduce back to land and labor as original factors is a fundamental insight of the Austrian school of economics. In particular, see Eugen von Böhm-Bawerk, *The Positive Theory of Capital*, vol. 2 of *Capital and Interest* (South Holland, Ill.: Libertarian Press, 1959).

axe, transfers his right of ownership to Jones, in exchange for a certain amount of Jones's gold—the precise amount of gold being agreed upon voluntarily by the two parties. Jones now takes the axe and fells lumber, then sells the lumber to Johnson for gold; Johnson in turn sells the lumber to Robbins, a contractor, for gold, and Robbins in his turn constructs a house in exchange for the gold of his client/Benton. (It should be evident that this vertical network of exchange could not take place without the use of a monetary medium for the exchanges.)

To complete our picture of a market economy, let us suppose that Jones has cut down his lumber, but has to ship it down-river to transfer it to Johnson; Jones, then, sells the lumber to another intermediary, Polk, who *hires* the labor services of X, Y, and Z to transport the logs to Johnson. What has happened here, and why doesn't the use of X, Y, and Z's labor in transforming and transporting the logs to a more useful place give *them* rights to ownership of the logs?

What has happened is this: Polk transfers some gold to X and to Y, and to Z, in return for their selling to him their labor services of transporting the logs. Polk did *not* sell the logs to these men for money; instead, he "sold" them money in exchange for employing their labor services on his logs. In short, Polk may have bought the logs from Jones for 40 gold ounces, and then paid X, Y, and Z 20 gold ounces each to transport the logs, and *then* sold the logs to Johnson for 110 ounces of gold. Hence, Polk netted a gain of 10 gold ounces on the entire transaction. X, Y, and Z, if they had so desired, *could* have purchased the logs from Jones themselves for the 40 ounces, and then shipped the logs themselves, sold them to Johnson for 110 and pocketed the 10 extra ounces. Why didn't they? Because (a) they didn't have the *capital*; in short, they hadn't saved up the requisite money, by reducing their previous consumption sufficiently below their income to accumulate the 40 ounces; and/or (b) they wanted money payment *while they worked*, and were not willing to wait for the number of months it took for the logs to be shipped and sold; and/or (c) they were unwilling to be saddled with the risk that the logs might indeed not be saleable for 110 ounces. Thus, the indispensable and enormously important function of Polk, the *capitalist* in our example of the market economy, is to save the laborers from the necessity of restricting their consumption and thus saving up the capital themselves, and from waiting for their pay until the product would (hopefully) be sold at a profit further down the chain of production. Hence, the capitalist, far from somehow depriving the laborer of his rightful ownership of the product, makes possible a payment to the laborer considerably *in advance*

of the sale of the product. Furthermore, the capitalist, in his capacity as forecaster or *entrepreneur*, saves the laborer from the risk that the product might not be sold at a profit, or that he might even suffer losses.

The capitalist, then, is a man who has labored, saved out of his labor (i.e., has restricted his consumption) and, in a series of voluntary contracts has (a) purchased ownership rights in capital goods, and (b) paid the laborers for their labor services in transforming those capital goods into goods nearer the final stage of being consumed. Note again that no one is preventing the laborers themselves from saving, purchasing capital goods from their owners and then working on their own capital goods, finally selling the product and reaping the profits. In fact, the capitalists are conferring a great benefit on these laborers, making possible the entire complex vertical network of exchanges in the modern economy. For they save the money needed to buy the capital goods and to pay the laborers in advance of sale for “producing” them further.³

At each step of the way, then, a man produces—by exerting his labor upon tangible goods. If this good was previously unused and unowned, then his labor automatically brings the good under his control, his “ownership.” If the good was already owned by someone else, then the owner may either sell this (capital) good to our laborer for money, after which his labor is exerted on the good; *or* the previous owner may purchase the labor service for money in order to produce the good further and then sell it to the next buyer. This process, too, reduces back to the original production of unused resources and to labor, since the capitalist—the previous owner in our example—ultimately derived his own ownership from: original production; voluntary exchange; and the saving of money. Thus, all ownership on the free market reduces ultimately back to: (a) ownership by each man of his own person and his own labor; (b) ownership by each man of land which he finds unused and transforms by his own labor; and (c) the exchange of the products of this mixture of (a) and (b) with the similarly-produced output of other persons on the market.

³In technical economic terms, the laborers, by choosing to take their money in advance of sale, earn the “discounted marginal value product” of their labor—the discount being the value which the laborers achieve by getting their money *now* instead of *later*. The capitalists, by advancing money *now* and relieving the laborers of the burden of waiting until later, earn the discount for “time-preference”; the farsighted ones also earn the reward for being better at forecasting the future under conditions of uncertainty, in the form of “pure profits.” The less farsighted entrepreneurs suffer losses for poor handling of decisions under uncertainty. See Rothbard, *Man, Economy, and State*, *passim*.

The same law holds true for all ownership, on the market, of the money commodity. As we have seen, money is either (1) produced by one's own labor transforming original resources (e.g., mining gold); or (2) obtained by selling one's own product—or selling goods previously purchased with the proceeds of one's own product—in exchange for gold owned by someone else. Again, just as (c) in the previous paragraph reduces logically back to (a) and (b), production coming before exchange—so here (2) ultimately reduces logically back to (1).

In the free society we have been describing, then, all ownership reduces ultimately back to each man's naturally given ownership over himself, *and* of the land resources that man transforms and brings into production. The *free market* is a society of voluntary and consequently mutually beneficial exchanges of ownership titles between specialized producers. It has often been charged that this market economy rests on the wicked doctrine that labor “is treated as a commodity.” But the natural fact is that labor service is indeed a commodity, for, as in the case of tangible property, one's own labor service *can* be alienated and exchanged for other goods and services. A person's labor service is alienable, but his *will* is not. It is most fortunate, moreover, for mankind that this is so; for this alienability means (1) that a teacher or physician or whatever can sell his labor services for money; and (2) that workers can sell their labor services in transforming goods to capitalists for money. If this could not be done, the structure of capital required for civilization could not be developed, and no one's vital labor services could be purchased by his fellow men.

The distinction between a man's alienable labor service and his inalienable will may be further explained: a man can alienate his labor service, but he cannot *sell* the capitalized future value of that service. In short, he cannot, in nature, sell himself into slavery and have this sale enforced—for this would mean that his future will over his own person was being surrendered in advance. In short, a man can naturally expend his labor currently for someone else's benefit, but he cannot transfer himself, even if he wished, into another man's permanent capital good. For he cannot rid himself of his own will, which may change in future years and repudiate the current arrangement. The concept of “voluntary slavery” is indeed a contradictory one, for so long as a laborer remains totally subservient to his master's will voluntarily, he is not yet a slave since his submission is voluntary; whereas, if he later changed his mind and the master enforced his slavery by violence, the slavery would not then be voluntary. But more of coercion later on.

The society that we have been describing in this section—the society of free and voluntary exchanges—may be called the “free society” or the society of “pure liberty.” The bulk of this work will be devoted to spelling out the implications of such a system. The term “free market,” while properly signifying the critically important network of free and voluntary exchanges, is insufficient when going at all beyond the narrowly economic or praxeologic. For it is vital to realize that the free market is exchanges of titles to property, and that therefore the free market is necessarily embedded in a larger free society—with a certain pattern of property rights and ownership titles. We have been describing the free society as one where property titles are founded on the basic natural facts of man: each individual’s ownership by his ego over his own person and his own labor, and his ownership over the land resources which he finds and transforms. The natural alienability of tangible property as well as man’s labor service makes possible the network of free exchanges of ownership titles.

The regime of pure liberty—the libertarian society—may be described as a society where *no ownership titles are “distributed,”* where, in short, no man’s property in his person or in tangibles is molested, violated, or interfered with by anyone else. But this means that *absolute freedom*, in the social sense, *can* be enjoyed, not only by an isolated Crusoe but by every man in any society, no matter how complex or advanced. For every man enjoys absolute freedom—pure liberty—if, like Crusoe, his “naturally” owned property (in his person and in tangibles) is free from invasion or molestation by other men. And, of course, being in a society of voluntary exchanges, each man can enjoy absolute liberty not in Crusoe-like isolation, but in a milieu of civilization, harmony, sociability, and enormously greater productivity through exchanges of property with his fellow men. Absolute freedom, then, need *not* be lost as the price we must pay for the advent of civilization; men *are* born free, and need *never* be in chains. Man may achieve liberty and abundance, freedom *and* civilization.

This truth will be obscured if we persist in confusing “freedom” or “liberty” with *power*. We have seen the absurdity of saying that man does not have free will because he has not the *power* to violate the laws of his nature—because he cannot leap oceans at a single bound. It is similarly absurd to say that a man is not “truly” free in the free society because, in that society, no man is “free” to aggress against another man or to invade his property. Here, again, the critic is not really dealing with freedom but with power; in a free society, no man would be permitted (or none would permit himself) to invade the property of another. This would mean that

his *power* of action would be limited; as man's power is always limited by his nature; it would *not* mean any curtailment of his freedom. For if we define freedom, again, as the *absence of invasion* by another man of any man's person or property, the fatal confusion of freedom and power is at last laid to rest.⁴ We then see clearly that a supposed "freedom to steal or assault"—in short, to aggress—would not be a state of freedom at all, because it would permit someone, the victim of an assault, to be deprived of his right to person and property—in short, to have his liberty violated.⁵ Each man's power, then, is always necessarily limited by the facts of the human condition, by the nature of man and his world; but it is one of the glories of man's condition that each person *can* be absolutely free, even in a world of complex interaction and exchange. It is still true, moreover, that any man's power to act and do and consume is enormously greater in such a world of complex interaction than it could be in a primitive or Crusoe society.

A vital point: if we are trying to set up an ethic for man (in our case, the subset of ethics dealing with violence), then to be a valid ethic the theory must hold true for *all* men, whatever their location in time or place.⁶ This is one of the notable attributes of natural law—its applicability to all men, regardless of time or place. Thus, ethical natural law takes its place alongside physical or "scientific" natural laws. But the society of liberty is the *only* society that can apply the same basic rule to every man, regardless of time or place. Here is one of the ways in which reason can select one theory of natural law over a rival theory—just as reason can choose between many economic or other competing theories. Thus, if someone claims that the Hohenzollern or Bourbon families have the "natural right" to rule everyone else, this kind of doctrine is easily refutable by simply pointing to the fact that there is here no uniform ethic for every person: one's rank in the ethical order being dependent on the accident of being,

⁴We shall see later that this definition of freedom or liberty must be clarified to read "absence of molestation of a man's *just* property," with justice implying, once again, ownership title to one's own self, to one's own transformed property, and to the fruits of voluntary exchanges built upon them.

⁵For a critique of the "freedom to steal or assault" argument against the libertarian position, see Murray N. Rothbard, *Power and Market*, 2nd ed. (Kansas City: Sheed Andrews and McMeel, 1977), p. 242.

⁶On the requirement that ethical laws be universally binding, see R.M. Hare, *The Language of Morals* (Oxford: Clarendon Press, 1952), p. 162; Marcus Singer, *Generalization in Ethics* (New York: Knopf, 1961), pp. 13–33.

or not being, a Hohenzollern. Similarly, if someone says that every man has a “natural right” to three square meals a day, it is glaringly obvious that this is a fallacious natural law or natural rights theory; for there are innumerable times and places where it is physically impossible to provide three square meals for all, or even for the majority, of the population. Hence this cannot be set forth as some kind of “natural right.” On the other hand, consider the universal status of the ethic of liberty, and of the natural right of person and property that obtains under such an ethic. For every person, at any time or place, can be covered by the basic rules: ownership of one’s own self, ownership of the previously unused resources which one has occupied and transformed; and ownership of all titles derived from that basic ownership—either through voluntary exchanges or voluntary gifts. These rules—which we might call the “rules of natural ownership”—can clearly be applied, and such ownership defended, regardless of the time or place, and regardless of the economic attainments of the society. It is impossible for any other social system to qualify as universal natural law; for if there is any coercive *rule* by one person or group over another (and *all* rule partakes of such hegemony), then it is impossible to apply the same rule for all; only a rulerless, purely libertarian world can fulfill the qualifications of natural rights and natural law, or, more important, can fulfill the conditions of a universal ethic for all mankind.

CHAPTER 10

The Division of Labor Clarified

I have come to realize, since writing this essay, that I overweighted the contributions and importance of Adam Smith on the division of labor. And to my surprise, I did not sufficiently appreciate the contributions of Ludwig von Mises.

Despite the enormous emphasis on specialization and the division of labor in the *Wealth of Nations*, much of Smith's discussion was misplaced and misleading. In the first place, he placed undue importance on the division of labor *within* a factory (the famous pin-factory example), and scarcely considered the far more important division of labor among various industries and occupations. Second, there is the mischievous contradiction between the discussions in Book 1 and Book 5 in the *Wealth of Nations*. In Book 1, the division of labor is hailed as responsible for civilization as well as economic growth, and is also praised as expanding the alertness and intelligence of the population. But in Book 5 the division of labor is condemned as leading to the intellectual and moral degeneration of the same population, and to the loss of their "intellectual, social, and martial virtues." These complaints about the division of labor as well as

Excerpt from "Freedom, Inequality, Primitivism, and the Division of Labor," in *Egalitarianism as a Revolt Against Nature, and Other Essays* (Auburn, Ala.: Mises Institute, 2000), pp. 299–302.

similar themes in Smith's close friend Adam Ferguson, strongly influenced the griping about "alienation" in Marx and later socialist writers.¹

But of greater fundamental importance was Smith's abandonment of the tradition, since Jean Buridan and the Scholastics, that emphasized that two parties always undertook an exchange because each expected to gain from the transaction. In contrast to this emphasis on specialization and exchange as a result of conscious human decision, Smith shifted the focus from mutual benefit to an alleged irrational and innate "propensity to truck, barter, and exchange," as if human beings were lemmings determined by forces external to their own chosen purposes. As Edwin Cannan pointed out long ago, Smith took this tack because he rejected the idea of innate differences in human talents and abilities, differences which would naturally lead people to seek out different specialized occupations.² Smith instead took an egalitarian-environmentalist position, still dominant today in neo-classical economics, holding that all men are uniform and equal, and therefore that differences in labor or occupations can only be the *result* rather than a cause of the system of division of labor. Moreover, Smith inaugurated the corollary tradition that differences in wage rates among this uniform population can only reflect differences in the cost of training.^{3,4}

In contrast, the recent work of Professor Joseph Salerno has illuminated the profound contributions of Ludwig von Mises's emphasis on the division of labor as the "essence of society" and the "fundamental social

¹On Ferguson's influence, see M.H. Abrams, *Natural Supernaturalism: Tradition and Revolution in Romantic Literature* (New York: Norton, 1971), pp. 220–21, 508.

²Edwin Cannan, *A History of the Theories of Production and Distribution in English Political Economy from 1776 to 1848* (3rd ed., London: Staples Press, 1917), p. 35.

³Contrast Smith's egalitarianism with the great early-fifteenth-century Italian Scholastic, San Bernardino of Siena (1380–1444). In his *On Contracts and Usury*, written in 1431–33, Bernardino pointed out that wage inequality on the market is a function of differences of ability and skill as well as training. An architect is paid more than a ditch digger, Bernardino explained, because the former's job requires more intelligence and ability as well as training, so that fewer men will qualify for the task. See Raymond de Roover, *San Bernardino of Siena and Sant' Antonio of Florence, The Two Great Economic Thinkers of the Middle Ages* (Boston: Baker Library, 1967), and Alejandro Chafuen, *Christians for Freedom: Late Scholastic Economics* (San Francisco: Ignatius Press, 1986), pp. 123–31.

⁴Modern neoclassical labor economics fits in this tradition by defining "discrimination" as any wage inequalities greater than differences in the cost of training. Thus, see the standard work by Gary Becker, *The Economics of Discrimination* (Chicago: University of Chicago Press, 1957).

phenomenon.” For Mises, as I wrote in the essay, the division of labor stems from the diversity and inequality of human beings and of nature. Salerno, in addition, brings out with unparalleled clarity that for Mises the division of labor is a conscious choice of mutual gain and economic development. The process of social evolution therefore becomes “the development of the division of labor,” and this allows Mises to refer to the worldwide division of labor as a vital “social organism” or “*oecumene*.” Mises also points out that division of labor is at the heart of biological organisms, and “the fundamental principle of all forms of life.” The difference of the “social organism” is that, in contrast to biological organisms, “reason and will are the originating and sustaining form of the organic coalescence.” Therefore, for Mises “human society is thus spiritual and teleological,” the “product of thought and will.” It therefore becomes of the utmost importance for people to understand the significance of maintaining and expanding the *oecumene* that consists of the free market and voluntary human exchanges, and to realize that breaching and crippling that market and *oecumene* can only have disastrous consequences for the human race.⁵

In the standard account, writers and social theorists are supposed to mellow and moderate their views as they get older. (Two glorious exceptions to this rule are such very different libertarian figures as Lysander Spooner and Lord Acton.) Looking back over the two decades since writing this essay, it is clear that my views, on the contrary, have radicalized and polarized even further. As unlikely as it would have seemed twenty years ago, I am even more hostile to socialism, egalitarianism, and Romanticism, far more critical of the British classical and modern neo-classical tradition, and even more appreciative of Mises’s great insights than ever before. Indeed, for someone who thought that he had absorbed all of Mises’s work many years ago, it is a constant source of surprise how rereading Mises continues to provide a source of fresh insights and of new ways of looking at seemingly trite situations. This phenomenon, in which many of us have experience, bears testimony to the remarkable

⁵Joseph T. Salerno, “Ludwig von Mises as Social Rationalist,” *Review of Austrian Economics* 4 (1990): 26–54. See also Salerno’s critique of Eamonn Butler’s uncomprehending reaction to Mises’s insights, charging Mises with the “organic fallacy,” and “difficulty with English.” *Ibid.*, p. 29n. The implicit contrast of Mises’s view with Hayek’s emphasis on unconscious action and blind adherence to traditional rules is made explicit by Salerno in the latter part of this article dealing with the socialist calculation debate, and in Salerno, “Postscript,” in Ludwig von Mises, *Economic Calculation in the Socialist Commonwealth* (Auburn, Ala.: Ludwig von Mises Institute, 1990), pp. 51–71.

quality and richness of Mises's thought. Although he died almost two decades ago, Ludwig von Mises remains more truly alive than most of our conventionally wise contemporaries.

3. Exchange and the Division of Labor

In describing the conditions that must obtain for interpersonal exchange to take place (such as reverse valuations), we implicitly assumed that it must be *two different goods* that are being exchanged. If Crusoe at his end of the island produced only berries, and Jackson at his end produced only the same kind of berries, then no basis for exchange between them would occur. If Jackson produced 200 berries and Crusoe 150 berries, it would be nonsensical to assume that any exchange of berries would be made between them.¹⁴ The only voluntary interpersonal action in relation to berries that could occur would be a gift from one to another.

If exchangers must exchange two different goods, this implies that each party must have a different proportion of assets of goods in relation to his wants. He must have relatively *specialized* in the acquisition of different goods from those the other party produced. This specialization by each individual may have occurred for any one of three different reasons or any combination of the three: (a) differences in suitability and yield of the nature-given factors; (b) differences in given capital and durable consumers' goods; and (c) differences in skill and in the desirability of different types of labor.¹⁵ These factors, in addition to the potential exchange-value and use-value of the goods, will determine the line of production that the actor will pursue. If the production is directed toward exchange, then the exchange-value will play a major role in his decision. Thus, Crusoe may have found abundant crops on his side of the island. These resources, added to his greater skill in farming and the lower disutility of this occupation for him because of a liking for

¹⁴It is possible that Crusoe and Jackson, for the mutual fun of it, might pass 50 berries back and forth between them. This, however, would not be genuine exchange, but joint participation in an enjoyable consumers' good—a game or play.

¹⁵Basically, class (b) is resolvable into differences in classes (a) and (c), which account for their production.

agriculture, might cause him to take up farming, while Jackson's greater skill in hunting and more abundant game supply induce him to specialize in hunting and trapping. Exchange, a productive process for both participants, implies specialization of production, or *division of labor*.

The extent to which division of labor is carried on in a society depends on the *extent of the market for the products*. The latter determines the exchange-value that the producer will be able to obtain for his goods. Thus, if Jackson knows that he will be able to exchange part of his catch of game for the grains and fruits of Crusoe, he may well expend all his labor on hunting. Then he will be able to devote all his labor-time to hunting, while Crusoe devotes his to farming, and their "surplus" stocks will be exchanged up to the limits analyzed in the previous section. On the other hand, if, for example, Crusoe has little use for meat, Jackson will not be able to exchange much meat, and he will be forced to be far more directly self-sufficient, producing his own grains and fruits as well as meat.

It is clear that, praxeologically, the very fact of exchange and the division of labor implies that it must be more productive for all concerned than isolated, autistic labor. Economic analysis alone, however, does not convey to us knowledge of the enormous increase in productivity that the division of labor brings to society. This is based on a further empirical insight, viz., the enormous *variety* in human beings and in the world around them. It is a fact that, superimposed on the basic unity of species and objects in nature, there is a great diversity. Particularly is there variety in the aforementioned factors that would give rise to specialization: in the locations and types of natural resources and in the ability, skills, and tastes of human beings. In the words of Professor von Mises:

One may as well consider these two facts as one and the same fact, namely, the manifoldness of nature which makes the universe a complex of infinite varieties. If the earth's surface were such that the physical conditions of production were the same at every

point and if one man were . . . equal to all other men . . . division of labor would not offer any advantages for acting man.¹⁶

It is clear that conditions for exchange, and therefore increased productivity for the participants, will occur *where each party has a superiority in productivity in regard to one of the goods exchanged*—a superiority that may be due either to better nature-given factors or to the ability of the producer. If individuals abandon attempts to satisfy their wants in isolation, and if each devotes his working time to that specialty in which he excels, it is clear that total productivity for each of the products is increased. If Crusoe can produce more berries per unit of time, and Jackson can kill more game, it is clear that productivity in both lines is increased if Crusoe devotes himself wholly to the production of berries and Jackson to hunting game, after which they can exchange some of the berries for some of the game. In addition to this, full-time specialization in a line of production is likely to improve each person's productivity in that line and intensify the relative superiority of each.

More puzzling is the case in which one individual is superior to another in all lines of production. Suppose, for example, that Crusoe is superior to Jackson both in the production of berries and in the production of game. Are there any possibilities for exchange in this situation? Superficially, it might be answered that there are none, and that both will continue in isolation. Actually, it pays for Crusoe to specialize in that line of production in which he has the greatest *relative* superiority in production, and to exchange this product for the product in which Jackson specializes. It is clear that the inferior producer benefits by receiving some of the products of the superior one. The latter benefits also, however, by being free to devote himself to

¹⁶Mises, *Human Action*, pp. 157 ff. On the pervasiveness of variation, also cf. F.A. Harper, *Liberty, A Path to Its Recovery* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1949), pp. 65–77, 139–41.

that product in which his productive superiority is the greatest. Thus, if Crusoe has a great superiority in berry production and a small one in game production, it will still benefit him to devote his full working time to berry production and then exchange some berries for Jackson's game products. In an example mentioned by Professor Boulding:

A doctor who is an excellent gardener may very well prefer to employ a hired man who as a gardener is inferior to himself, because thereby he can devote more time to his medical practice.¹⁷

This important principle—that exchange may beneficially take place even when one party is superior in both lines of production—is known as the *law of association*, the *law of comparative costs*, or the *law of comparative advantage*.

With all-pervasive variation offering possibilities for specialization, and favorable conditions of exchange occurring even when one party is superior in both pursuits, great opportunities abound for widespread division of labor and extension of the market. As more and more people are linked together in the exchange network, the more “extended” is the market for each of the products, and the more will exchange-value predominate, as compared to direct use-value, in the decisions of the producer. Thus, suppose that there are five people on the desert island, and each specializes in that line of product in which he has a comparative or absolute advantage. Suppose that each one concentrates on the following products:

A berries
 B game
 C fish
 D eggs
 E milk

¹⁷Kenneth E. Boulding, *Economic Analysis* (1st ed.; New York: Harper & Bros., 1941), p. 30; also *ibid.*, pp. 22–32.

With more people participating in the market process, the opportunities for exchange for each actor are now greatly increased. This is true even though each particular act of exchange takes place between just two people and involves two goods. Thus, as shown in Figure 7, the following network of exchange may take place: Exchange-value now takes a far more dominant place in the decisions of the producers. Crusoe (if A is Crusoe) now knows that if he specializes in berries, he does not now have to rely solely on Jackson to accept them, but can exchange them for the products of several other people. A sudden loss of taste for berries by Jackson will not impoverish Crusoe and deprive him of all other necessities as it would have before. Furthermore, berries will now bring to Crusoe a wider variety of products, each in far greater abundance than before, some being available now that would not have been earlier. The greater productivity and the wider market and emphasis on exchange-value obtain for all participants in the market.

It is evident, as will be explained further in later sections on indirect exchange, that the contractual society of the market is a genuinely *co-operative society*. Each person specializes in the task for which he is best fitted, and each serves his fellow men in order to serve himself in exchange. Each person, by producing for exchange, co-operates with his fellow men voluntarily

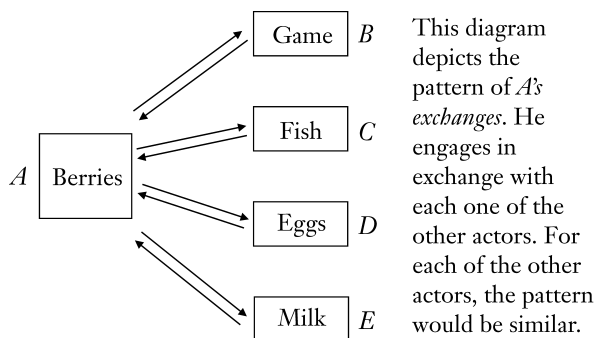


FIGURE 7. PATTERN OF A'S EXCHANGES

and without coercion. In contrast to the hegemonic form of society, in which one person or one group of persons exploits the others, a contractual society leaves each person free to benefit himself in the market and as a consequence to benefit others as well. An interesting aspect of this praxeological truth is that this benefit to others occurs regardless of the *motives* of those involved in exchange. Thus, Jackson may specialize in hunting and exchange the game for other products even though he may be indifferent to, or even cordially detest, his fellow participants. Yet regardless of his motives, the other participants are benefitted by his actions as an indirect but necessary consequence of his own benefit. It is this almost marvelous process, whereby a man in pursuing his own benefit also benefits others, that caused Adam Smith to exclaim that it almost seemed that an “invisible hand” was directing the proceedings.¹⁸

Thus, in explaining the origins of society, there is no need to conjure up any mystic communion or “sense of belonging” among individuals. Individuals recognize, through the use of reason, the advantages of exchange resulting from the higher productivity of the division of labor, and they proceed to follow this advantageous course. In fact, it is far more likely that feelings of friendship and communion are the *effects* of a regime of (contractual) social co-operation rather than the cause. Suppose, for example, that the division of labor were not productive, or that men had failed to recognize its productivity. In that case, there would be little or no opportunity for exchange, and each man would try to obtain his goods in autistic independence. The

¹⁸Those critics of Adam Smith and other economists who accuse the latter of “assuming” that God or Nature directs the market process by an “invisible hand” for the benefit of all participants completely miss the mark. The fact that the market provides for the welfare of each individual participating in it is a *conclusion* based on scientific analysis, not an assumption upon which the analysis is based. The “invisible hand” was simply a metaphor used in commenting on this process and its results. Cf. William D. Grampp, “Adam Smith and the Economic Man,” *Journal of Political Economy*, August, 1948, pp. 315–36, especially pp. 319–20.

result would undoubtedly be a fierce struggle to gain possession of the scarce goods, since, in such a world, each man's gain of useful goods would be some other man's loss. It would be almost inevitable for such an autistic world to be strongly marked by violence and perpetual war. Since each man could gain from his fellows only at their expense, violence would be prevalent, and it seems highly likely that feelings of mutual hostility would be dominant. As in the case of animals quarreling over bones, such a warring world could cause only hatred and hostility between man and man. Life would be a bitter "struggle for survival." On the other hand, in a world of voluntary social co-operation through mutually beneficial exchanges, where one man's gain is another man's *gain*, it is obvious that great scope is provided for the development of social sympathy and human friendships. It is the peaceful, co-operative society that creates favorable conditions for feelings of friendship among men.

The mutual benefits yielded by exchange provide a major incentive (as in the case of Crusoe above) to would-be *aggressors* (initiators of violent action against others) to restrain their aggression and co-operate peacefully with their fellows. Individuals then decide that the advantages of engaging in specialization and exchange outweigh the advantages that war might bring.

Another feature of the market society formed by the division of labor is its permanence. The wants of men are renewed for each period of time, and so they must try to obtain for themselves anew a supply of goods for each period. Crusoe wants to have a steady rate of supply of game, and Jackson would like to have a continuing supply of berries, etc. Therefore, the social relations formed by the division of labor tend to be permanent as individuals specialize in different tasks and continue to produce in those fields.

There is one, less important, type of exchange that does *not* involve the division of labor. This is an exchange of the *same types of labor* for certain tasks. Thus, suppose that Crusoe, Jackson, and Smith are trying to clear their fields of logs. If each one engaged solely in the work of clearing his own field, it would

take a long period of time. However, if each put in some time in a joint effort to roll the other fellow's logs, the productivity of the log-rolling operations would be greatly increased. Each man could finish the task in a shorter period of time. This is particularly true for operations such as rolling heavy logs, which each man alone could not possibly accomplish at all and which they could perform only by agreed-upon joint action. In these cases, each man gives up his own labor in someone else's field in exchange for receiving the labor of the others in his field, the latter being worth more to him. Such an exchange involves a *combination* of the same type of labor, rather than a division of labor into different types, to perform tasks beyond the ready capacity of an isolated individual. This type of co-operative "log-rolling," however, would entail merely temporary alliances based on specific tasks, and, would not, as do specialization and division of labor, establish permanent exchange-ties and social relations.¹⁹

The great scope of the division of labor is not restricted to situations in which each individual makes all of one particular product, as was the case above. Division of labor may entail the specializing by individuals in the different *stages of production* necessary to produce a particular consumers' good. Thus, with a wider market permitting, different individuals specialize in the different stages, for example, involved in the production of the ham sandwich discussed in the previous chapter. General productivity is greatly increased as some people and some areas specialize in producing iron ore, some in producing different types of machines, some in baking bread, some in packaging meat, some in retailing, etc. The essence of developed market economies consists in the framework of co-operative exchange emerging with such specialization.²⁰

¹⁹See Mises, *Human Action*, pp. 157–58.

²⁰Such specialization of stages requires the adoption of *indirect exchange*, discussed in the following chapters.

Part Two

Action Within the Framework of Society

VIII. HUMAN SOCIETY

1. Human Cooperation

SOCIETY is concerted action, cooperation. Society is the outcome of conscious and purposeful behavior. This does not mean that individuals have concluded contracts by virtue of which they have founded human society. The actions which have brought about social cooperation and daily bring it about anew do not aim at anything else than cooperation and coadjuvancy with others for the attainment of definite singular ends. The total complex of the mutual relations created by such concerted actions is called society. It substitutes collaboration for the—at least conceivable—isolated life of individuals. Society is division of labor and combination of labor. In his capacity as an acting animal man becomes a social animal.

Individual man is born into a socially organized environment. In this sense alone we may accept the saying that society is—logically or historically—antecedent to the individual. In every other sense this dictum is either empty or nonsensical. The individual lives and acts within society. But society is nothing but the combination of individuals for cooperative effort. It exists nowhere else than in the actions of individual men. It is a delusion to search for it outside the actions of individuals. To speak of a society's autonomous and independent existence, of its life, its soul, and its actions is a metaphor which can easily lead to crass errors.

The questions whether society or the individual is to be considered as the ultimate end, and whether the interests of society should be subordinated to those of the individuals or the interests of the individuals to those of society are fruitless. Action is always action of individual men. The social or societal element is a certain orientation of the actions of individual men. The category *end* makes sense only when applied to action. Theology and the metaphysics of history may discuss the ends of society and the designs which God wants to realize with regard to society in the same way in which they discuss the purpose of all other parts of the created universe. For science, which is inseparable from reason, a tool manifestly unfit for the

treatment of such problems, it would be hopeless to embark upon speculations concerning these matters.

Within the frame of social cooperation there can emerge between members of society feelings of sympathy and friendship and a sense of belonging together. These feelings are the source of man's most delightful and most sublime experiences. They are the most precious adornment of life; they lift the animal species man to the heights of a really human existence. However, they are not, as some have asserted, the agents that have brought about social relationships. They are fruits of social cooperation, they thrive only within its frame; they did not precede the establishment of social relations and are not the seed from which they spring.

The fundamental facts that brought about cooperation, society, and civilization and transformed the animal man into a human being are the facts that work performed under the division of labor is more productive than isolated work and that man's reason is capable of recognizing this truth. But for these facts men would have forever remained deadly foes of one another, irreconcilable rivals in their endeavors to secure a portion of the scarce supply of means of sustenance provided by nature. Each man would have been forced to view all other men as his enemies; his craving for the satisfaction of his own appetites would have brought him into an implacable conflict with all his neighbors. No sympathy could possibly develop under such a state of affairs.

Some sociologists have asserted that the original and elementary subjective fact in society is a "consciousness of kind."¹ Others maintain that there would be no social systems if there were no "sense of community or of belonging together."² One may agree, provided that these somewhat vague and ambiguous terms are correctly interpreted. We may call consciousness of kind, sense of community, or sense of belonging together the acknowledgment of the fact that all other human beings are potential collaborators in the struggle for survival because they are capable of recognizing the mutual benefits of cooperation, while the animals lack this faculty. However, we must not forget that the primary facts that bring about such consciousness or such a sense are the two mentioned above. In a hypothetical world in which the division of labor would not increase productivity, there would not be any society. There would not be any sentiments of benevolence and good will.

The principle of the division of labor is one of the great basic prin-

1. F. H. Giddings, *The Principles of Sociology* (New York, 1926), p. 17.

2. R. M. MacIver, *Society* (New York, 1937), pp. 6-7.

ciples of cosmic becoming and evolutionary change. The biologists were right in borrowing the concept of the division of labor from social philosophy and in adapting it to their field of investigation. There is division of labor between the various parts of any living organism. There are, furthermore, organic entities composed of collaborating animal individuals; it is customary to call metaphorically such aggregations of the ants and bees "animal societies." But one must never forget that the characteristic feature of human society is purposeful cooperation; society is an outcome of human action, i.e., of a conscious aiming at the attainment of ends. No such element is present, as far as we can ascertain, in the processes which have resulted in the emergence of the structure-function systems of plant and animal bodies and in the operation of the societies of ants, bees, and hornets. Human society is an intellectual and spiritual phenomenon. It is the outcome of a purposeful utilization of a universal law determining cosmic becoming, viz., the higher productivity of the division of labor. As with every instance of action, the recognition of the laws of nature is put into the service of man's efforts to improve his conditions.

2. A Critique of the Holistic and Metaphysical View of Society

According to the doctrines of universalism, conceptual realism, holism, collectivism, and some representatives of Gestaltpsychologie, society is an entity living its own life, independent of and separate from the lives of the various individuals, acting on its own behalf and aiming at its own ends which are different from the ends sought by the individuals. Then, of course, an antagonism between the aims of society and those of its members can emerge. In order to safeguard the flowering and further development of society it becomes necessary to master the selfishness of the individuals and to compel them to sacrifice their egoistic designs to the benefit of society. At this point all these holistic doctrines are bound to abandon the secular methods of human science and logical reasoning and to shift to theological or metaphysical professions of faith. They must assume that Providence, through its prophets, apostles, and charismatic leaders, forces men who are constitutionally wicked, i.e., prone to pursue their own ends, to walk in the ways of righteousness which the Lord or *Weltgeist* or history wants them to walk.

This is the philosophy which has characterized from time immemorial the creeds of primitive tribes. It has been an element in all

all acts detrimental to the preservation of peaceful social cooperation and to the improvement of interhuman relations. They welcome the support which religious teachings may give to those moral precepts of which they themselves approve, but they are opposed to all those norms which are bound to bring about social disintegration from whatever source they may stem.

It is a distortion of fact to say, as many champions of religious theocracy do, that liberalism fights religion. Where the principle of church interference with secular issues is in force, the various churches, denominations and sects are fighting one another. By separating church and state, liberalism establishes peace between the various religious factions and gives to each of them the opportunity to preach its gospel unmolested.

Liberalism is rationalistic. It maintains that it is possible to convince the immense majority that peaceful cooperation within the framework of society better serves their rightly understood interests than mutual battling and social disintegration. It has full confidence in man's reason. It may be that this optimism is unfounded and that the liberals have erred. But then there is no hope left for mankind's future.

3. The Division of Labor

The fundamental social phenomenon is the division of labor and its counterpart human cooperation.

Experience teaches man that cooperative action is more efficient and productive than isolated action of self-sufficient individuals. The natural conditions determining man's life and effort are such that the division of labor increases output per unit of labor expended. These natural facts are:

First: the innate inequality of men with regard to their ability to perform various kinds of labor. Second: the unequal distribution of the nature-given, nonhuman opportunities of production on the surface of the earth. One may as well consider these two facts as one and the same fact, namely, the manifoldness of nature which makes the universe a complex of infinite varieties. If the earth's surface were such that the physical conditions of production were the same at every point and if one man were as equal to all other men as is a circle to another with the same diameter in Euclidian geometry, division of labor would not offer any advantages for acting man.

There is still a third fact, viz., that there are undertakings whose accomplishment exceeds the forces of a single man and requires the joint effort of several. Some of them require an expenditure of labor which no single man can perform because his capacity to work is not great enough. Others again could be accomplished by individuals;

but the time which they would have to devote to the work would be so long that the result would only be attained late and would not compensate for the labor expended. In both cases only joint effort makes it possible to attain the end sought.

If only this third condition were present, temporary cooperation between men would have certainly emerged. However, such transient alliances to cope with specific tasks which are beyond the strength of an individual would not have brought about lasting social cooperation. Undertakings which could be performed only in this way were not very numerous at the early stages of civilization. Moreover, all those concerned may not often agree that the performance in question is more useful and urgent than the accomplishment of other tasks which they could perform alone. The great human society enclosing all men in all of their activities did not originate from such occasional alliances. Society is much more than a passing alliance concluded for a definite purpose and ceasing as soon as its objective is realized, even if the partners are ready to renew it should an occasion present itself.

The increase in productivity brought about by the division of labor is obvious whenever the inequality of the participants is such that every individual or every piece of land is superior at least in one regard to the other individuals or pieces of land concerned. If A is fit to produce in 1 unit of time $6p$ or $4q$ and B only $2p$, but $8q$, they both, when working in isolation, will produce together $4p + 6q$; when working under the division of labor, each of them producing only that commodity in whose production he is more efficient than his partner, they will produce $6p + 8q$. But what will happen, if A is more efficient than B not only in the production of p but also in the production of q ?

This is the problem which Ricardo raised and solved immediately.

4. The Ricardian Law of Association

Ricardo expounded the law of association in order to demonstrate what the consequences of the division of labor are when an individual or a group, more efficient in every regard, cooperates with an individual or a group less efficient in every regard. He investigated the effects of trade between two areas, unequally endowed by nature, under the assumption that the products, but not the workers and the accumulated factors of future production (capital goods), can freely move from each area into the other. The division of labor between two such areas will, as Ricardo's law shows, increase the productivity of

labor and is therefore advantageous to all concerned, even if the physical conditions of production for any commodity are more favorable in one of these two areas than in the other. It is advantageous for the better endowed area to concentrate its efforts upon the production of those commodities for which its superiority is greater, and to leave to the less endowed area the production of other goods in which its own superiority is less. The paradox that it is more advantageous to leave more favorable domestic conditions of production unused and to procure the commodities they could produce from areas in which conditions for their production are less favorable, is the outcome of the immobility of labor and capital, to which the more favorable places of production are inaccessible.

Ricardo was fully aware of the fact that his law of comparative cost, which he expounded mainly in order to deal with a special problem of international trade, is a particular instance of the more universal law of association.

If A is in such a way more efficient than B that he needs for the production of 1 unit of the commodity p 3 hours compared with B 's 5, and for the production of 1 unit of q 2 hours compared with B 's 4, then both will gain if A confines himself to producing q and leaves B to produce p . If each of them gives 60 hours to producing p and 60 hours to producing q , the result of A 's labor is $20 p + 30 q$; of B 's, $12 p + 15 q$; and for both together, $32 p + 45 q$. If, however, A confines himself to producing q alone, he produces 60 q in 120 hours, while B , if he confines himself to producing p , produces in the same time 24 p . The result of their activities is then $24 p + 60 q$, which, as p has for A a substitution ratio of $\frac{3}{2} q$ and for B one of $\frac{5}{4} q$, signifies a larger output than $32 p + 45 q$. Therefore it is manifest that the division of labor brings advantages to all who take part in it. Collaboration of the more talented, more able, and more industrious with the less talented, less able, and less industrious results in benefit for both. The gains derived from the division of labor are always mutual.

The law of association makes us comprehend the tendencies which resulted in the progressive intensification of human cooperation. We conceive what incentive induced people not to consider themselves simply as rivals in a struggle for the appropriation of the limited supply of means of subsistence made available by nature. We realize what has impelled them and permanently impels them to consort with one another for the sake of cooperation. Every step forward on the way to a more developed mode of the division of labor serves the interests of all participants. In order to comprehend why man did not

remain solitary, searching like the animals for food and shelter for himself only and at most also for his consort and his helpless infants, we do not need to have recourse to a miraculous interference of the Deity or to the empty hypostasis of an innate urge toward association. Neither are we forced to assume that the isolated individuals or primitive hordes one day pledged themselves by a contract to establish social bonds. The factor that brought about primitive society and daily works toward its progressive intensification is human action that is animated by the insight into the higher productivity of labor achieved under the division of labor.

Neither history nor ethnology nor any other branch of knowledge can provide a description of the evolution which has led from the packs and flocks of mankind's nonhuman ancestors to the primitive, yet already highly differentiated, societal groups about which information is provided in excavations, in the most ancient documents of history, and in the reports of explorers and travelers who have met savage tribes. The task with which science is faced in respect of the origins of society can only consist in the demonstration of those factors which can and must result in association and its progressive intensification. Praxeology solves the problem. If and as far as labor under the division of labor is more productive than isolated labor, and if and as far as man is able to realize this fact, human action itself tends toward cooperation and association; man becomes a social being not in sacrificing his own concerns for the sake of a mythical Moloch, society, but in aiming at an improvement in his own welfare. Experience teaches that this condition—higher productivity achieved under the division of labor—is present because its cause—the inborn inequality of men and the inequality in the geographical distribution of the natural factors of production—is real. Thus we are in a position to comprehend the course of social evolution.

Current Errors Concerning the Law of Association

People cavil much about Ricardo's law of association, better known under the name *law of comparative cost*. The reason is obvious. This law is an offense to all those eager to justify protection and national economic isolation from any point of view other than the selfish interests of some producers or the issues of war-preparedness.

Ricardo's first aim in expounding this law was to refute an objection raised against freedom of international trade. The protectionist asks: What under free trade will be the fate of a country in which the conditions for any kind of production are less favorable than in all other countries? Now, in a world in which there is free mobility not only for products, but no

less for capital goods and for labor, a country so little suited for production would cease to be used as the seat of any human industry. If people fare better without exploiting the—comparatively unsatisfactory—physical conditions of production offered by this country, they will not settle here and will leave it as uninhabited as the polar regions, the tundras and the deserts. But Ricardo deals with a world whose conditions are determined by settlement in earlier days, a world in which capital goods and labor are bound to the soil by definite institutions. In such a milieu free trade, i.e., the free mobility of commodities only, cannot bring about a state of affairs in which capital and labor are distributed on the surface of the earth according to the better or poorer physical opportunities afforded to the productivity of labor. Here the law of comparative cost comes into operation. Each country turns toward those branches of production for which its conditions offer comparatively, although not absolutely, the most favorable opportunities. For the inhabitants of a country it is more advantageous to abstain from the exploitation of some opportunities which—absolutely and technologically—are more propitious and to import commodities produced abroad under conditions which—absolutely and technologically—are less favorable than the unused domestic resources. The case is analogous to that of a surgeon who finds it convenient to employ for the cleaning of the operating-room and the instruments a man whom he excels in this performance also and to devote himself exclusively to surgery, in which his superiority is higher.

The theorem of comparative cost is in no way connected with the value theory of classical economics. It does not deal with value or with prices. It is an analytic judgment; the conclusion is implied in the two propositions that the technically movable factors of production differ with regard to their productivity in various places and are institutionally restricted in their mobility. The theorem, without prejudice to the correctness of its conclusions, can disregard problems of valuation because it is free to resort to a set of simple assumptions. These are: that only two products are to be produced; that these products are freely movable; that for the production of each of them two factors are required; that one of these factors (it may be either labor or capital goods) is identical in the production of both, while the other factor (a specific property of the soil) is different for each of the two processes; that the greater scarcity of the factor common to both processes determines the extent of the exploitation of the different factor. In the frame of these assumptions, which make it possible to establish substitution ratios between the expenditure of the common factor and the output, the theorem answers the question raised.

The law of comparative cost is as independent of the classical theory of value as is the law of returns, which its reasoning resembles. In both cases we can content ourselves with comparing only physical input and physical output. With the law of returns we compare the output of the same product. With the law of comparative costs we compare the output of two different products. Such a comparison is feasible because we assume that

for the production of each of them, apart from one specific factor, only nonspecific factors of the same kind are required.

Some critics blame the law of comparative cost for this simplification of assumptions. They believe that the modern theory of value would require a reformulation of the law in conformity with the principles of subjective value. Only such a formulation could provide a satisfactory conclusive demonstration. However, they do not want to calculate in terms of money. They prefer to resort to those methods of utility analysis which they consider a means for making value calculations in terms of utility. It will be shown in the further progress of our investigation that these attempts to eliminate monetary terms from economic calculation are delusive. Their fundamental assumptions are untenable and contradictory and all formulas derived from them are vicious. No method of economic calculation is possible other than one based on money prices as determined by the market.⁷

The meaning of the simple assumptions underlying the law of comparative cost is not precisely the same for the modern economists as it was for the classical economists. Some adherents of the classical school considered them as the starting point of a theory of value in international trade. We know now that they were mistaken in this belief. Besides, we realize that with regard to the determination of value and of prices there is no difference between domestic and foreign trade. What makes people distinguish between the home market and markets abroad is only a difference in the data, i.e., varying institutional conditions restricting the mobility of factors of production and of products.

If we do not want to deal with the law of comparative cost under the simplified assumptions applied by Ricardo, we must openly employ money calculation. We must not fall prey to the illusion that a comparison between the expenditure of factors of production of various kinds and of the output of products of various kinds can be achieved without the aid of money calculation. If we consider the case of the surgeon and his handyman we must say: If the surgeon can employ his limited working time for the performance of operations for which he is compensated at \$50 per hour, it is to his interest to employ a handyman to keep his instruments in good order and to pay him \$2 per hour, *although this man needs 3 hours to accomplish what the surgeon could do in 1 hour*. In comparing the conditions of two countries we must say: If conditions are such that in England the production of 1 unit of each of the two commodities *a* and *b* requires the expenditure of 1 working day of the same kind of labor, while in India with the same investment of capital for *a* 2 days and for *b* 3 days are required, and if capital goods and *a* and *b* are freely movable from England to India and vice versa, while there is no mobility of labor, wage rates in India in the production of *a* must tend to be 50 per cent, and in the production of *b* 33⅓ per cent, of the English rates. If the English rate is 6 shillings, the rates in India would be the equivalent of 3 shillings in the production

7. See below, pp. 202-210.

of *a* and the equivalent of 2 shillings in the production of *b*. Such a discrepancy in the remuneration of labor of the same kind cannot last if there is mobility of labor on the domestic Indian labor market. Workers would shift from the production of *b* into the production of *a*; their migration would tend to lower the remuneration in the *a* industry and to raise it in the *b* industry. Finally Indian wage rates would be equal in both industries. The production of *a* would tend to expand and to supplant English competition. On the other hand the production of *b* would become unprofitable in India and would have to be discontinued, while it would expand in England. The same reasoning is valid if we assume that the difference in the conditions of production consists also or exclusively in the amount of capital investment needed.

It has been asserted that Ricardo's law was valid only for his age and is of no avail for our time which offers other conditions. Ricardo saw the difference between domestic trade and foreign trade in differences in the mobility of capital and labor. If one assumes that capital, labor, and products are movable, then there exists a difference between regional and interregional trade only as far as the cost of transportation comes into play. Then it is superfluous to develop a theory of international trade as distinguished from national trade. Capital and labor are distributed on the earth's surface according to the better or poorer conditions which the various regions offer to production. There are areas more densely populated and better equipped with capital, there are others less densely populated and poorer in capital supply. There prevails on the whole earth a tendency toward an equalization of wage rates for the same kind of labor.

Ricardo, however, starts from the assumption that there is mobility of capital and labor only within each country, and not between the various countries. He raises the question what the consequences of the free mobility of products must be under such conditions. (If there is no mobility of products either, then every country is economically isolated and autarkic, and there is no international trade at all.) The theory of comparative cost answers this question. Now, Ricardo's assumptions by and large held good for his age. Later, in the course of the nineteenth century, conditions changed. The immobility of capital and labor gave way; international transfer of capital and labor became more and more common. Then came a reaction. Today capital and labor are again restricted in their mobility. Reality again corresponds to the Ricardian assumptions.

However, the teachings of the classical theory of interregional trade are above any change in institutional conditions. They enable us to study the problems involved under any imaginable assumptions.

5. The Effects of the Division of Labor

The division of labor is the outcome of man's conscious reaction to the multiplicity of natural conditions. On the other hand it is itself a factor bringing about differentiation. It assigns to the various geo-

graphic areas specific functions in the complex of the processes of production. It makes some areas urban, others rural; it locates the various branches of manufacturing, mining, and agriculture in different places. Still more important, however, is the fact that it intensifies the innate inequality of men. Exercise and practice of specific tasks adjust individuals better to the requirements of their performance; men develop some of their inborn faculties and stunt the development of others. Vocational types emerge, people become specialists.

The division of labor splits the various processes of production into minute tasks, many of which can be performed by mechanical devices. It is this fact that made the use of machinery possible and brought about the amazing improvements in technical methods of production. Mechanization is the fruit of the division of labor, its most beneficial achievement, not its motive and fountain spring. Power-driven specialized machinery could be employed only in a social environment under the division of labor. Every step forward on the road toward the use of more specialized, more refined, and more productive machines requires a further specialization of tasks.

6. The Individual Within Society

If praxeology speaks of the solitary individual, acting on his own behalf only and independent of fellow men, it does so for the sake of a better comprehension of the problems of social cooperation. We do not assert that such isolated autarkic human beings have ever lived and that the social stage of man's history was preceded by an age of independent individuals roaming like animals in search of food. The biological humanization of man's nonhuman ancestors and the emergence of the primitive social bonds were effected in the same process. Man appeared on the scene of earthly events as a social being. The isolated asocial man is a fictitious construction.

Seen from the point of view of the individual, society is the great means for the attainment of all his ends. The preservation of society is an essential condition of any plans an individual may want to realize by any action whatever. Even the refractory delinquent who fails to adjust his conduct to the requirements of life within the societal system of cooperation does not want to miss any of the advantages derived from the division of labor. He does not consciously aim at the destruction of society. He wants to lay his hands on a greater portion of the jointly produced wealth than the social order assigns to him. He would feel miserable if antisocial behavior were to become universal and its inevitable outcome, the return to primitive indigence, resulted.

II.

WHAT DETERMINES PRICES: SUPPLY AND DEMAND

What determines individual prices? Why is the price of eggs, or horseshoes, or steel rails, or bread, whatever it is? Is the market determination of prices arbitrary, chaotic, or anarchic?

Much of the past two centuries of economic analysis, or what is now unfortunately termed *microeconomics*, has been devoted to analyzing and answering this question. The answer is that any given price is always determined by two fundamental, underlying forces: supply and demand, or the supply of that product and the intensity of demand to purchase it.

Let us say that we are analyzing the determination of the price of any product, say, coffee, at any given moment, or “day,” in time. At any time there is a stock of coffee, ready to be sold to the consumer. How that stock got there is not yet our concern. Let’s say that, at a certain place or in an entire country, there are 10 million pounds of coffee available for consumption. We can then construct a diagram, of which the horizontal axis is units of quantity, in this case, millions of pounds of coffee. If 10 million

pounds are now available, the stock, or supply, of coffee available is the vertical line at 10 million pounds, the line to be labeled S for supply.

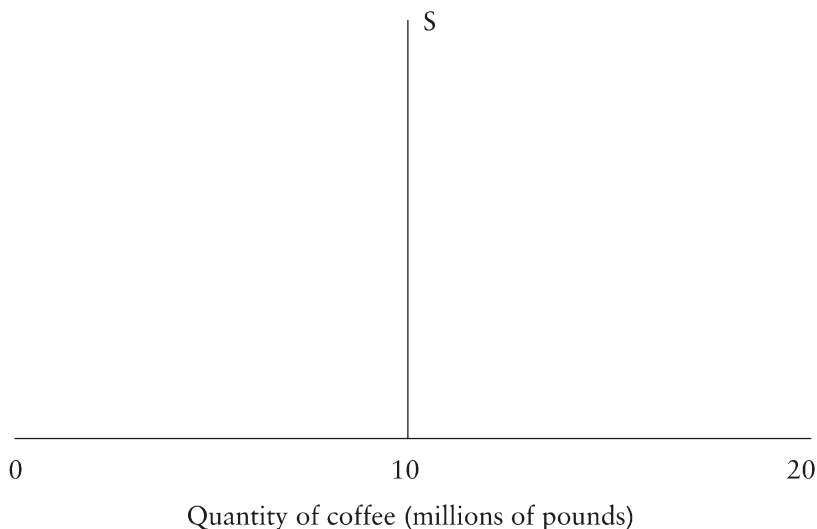


FIGURE 2.1 — THE SUPPLY LINE

The *demand curve* for coffee is not objectively measurable as is supply, but there are several things that we can definitely say about it. For one, if we construct a hypothetical *demand schedule* for the market, we can conclude that, at any given time, and all other things remaining the same, the higher the price of a product the less will be purchased. Conversely, the lower the price the more will be purchased. Suppose, for example, that for some bizarre reason, the price of coffee should suddenly leap to \$1,000 a pound. Very few people will be able to buy and consume coffee, and they will be confined to a few extremely wealthy coffee fanatics. Everyone else will shift to cocoa, tea, or other beverages. So if the coffee price becomes extremely high, few pounds of coffee will be purchased.

On the other hand, suppose again that, by some fluke, coffee prices suddenly drop to 1 cent a pound. At that point, everyone will rush out to consume coffee in large quantities, and they will forsake tea, cocoa or whatever. A very low price, then, will induce a willingness to buy a very large number of pounds of coffee.

A very high price means only a few purchases; a very low price means a large number of purchases. Similarly we can generalize on the range between. In fact we can conclude: The lower

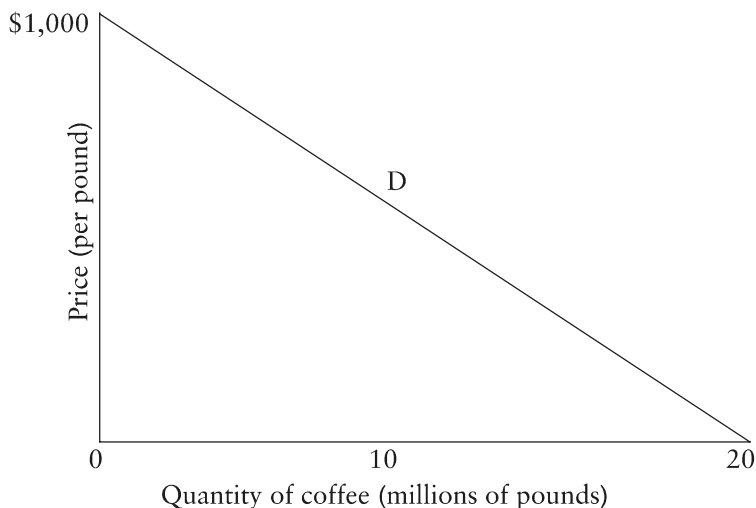


FIGURE 2.2 — THE DEMAND CURVE¹

¹Conventionally, and for convenience, economists for the past four decades have drawn the demand curves as falling straight lines. There is no particular reason to suppose, however, that the demand curves are straight lines, and no evidence to that effect. They might just as well be curved or jagged or anything else. The only thing we know with assurance is that they are falling, or negatively sloped. Unfortunately, economists have tended to forget this home truth, and have begun to manipulate these lines as if they actually existed in this shape. In that way, mathematical manipulation begins to crowd out the facts of economic reality.

the price of any product (other things being equal), the greater the quantities that buyers will be willing to purchase. And vice versa. For as the price of anything falls, it becomes less costly relative to the buyer's stock of money and to other competing uses for the dollar; so that a fall in price will bring nonbuyers into the market and cause the expansion of purchases by existing buyers. Conversely, as the price of anything rises, the product becomes more costly relative to the buyers' income and to other products, and the amount they will purchase will fall. Buyers will leave the market, and existing buyers will curtail their purchases.

The result is the "falling demand curve," which graphically expresses this "law of demand" (Figure 2.2). We can see that the quantity buyers will purchase ("the quantity demanded") varies inversely with the price of the product. This line is labeled D for demand. The vertical axis is P for price, in this case, dollars per pound of coffee.

Supply, for any good, is the objective fact of how many goods are available to the consumer. Demand is the result of the subjective values and demands of the individual buyers or consumers. S tells us how many pounds of coffee, or loaves of bread or whatever are available; D tells us how many loaves would be purchased at different hypothetical prices. We never know the actual demand curve: only that it is falling, in some way; with quantity purchased increasing as prices fall and vice versa.

We come now to how prices are determined on the free market. What we shall demonstrate is that the price of any good or service, at any given time, and on any given day, will tend to be the price at which the S and D curves intersect (Figure 2.3).

In our example, the S and D curves intersect at the price of \$3 a pound, and therefore that will be the price on the market.

To see why the coffee price will be \$3 a pound, let us suppose that, for some reason, the price is higher, say \$5 (Figure 2.4). At that point, the quantity supplied (10 million pounds) will be greater than the quantity demanded, that is, the amount that consumers are willing to buy at that higher price. This leaves an

unsold surplus of coffee, coffee sitting on the shelves that cannot be sold because no one will buy it.

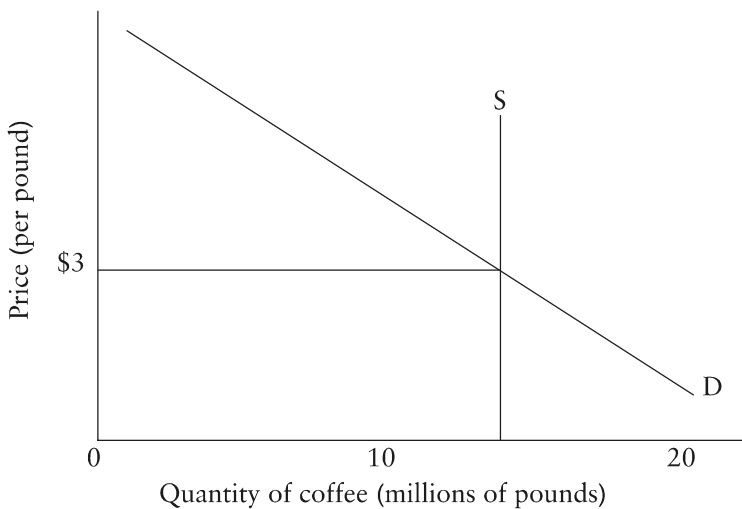


FIGURE 2.3 — SUPPLY AND DEMAND

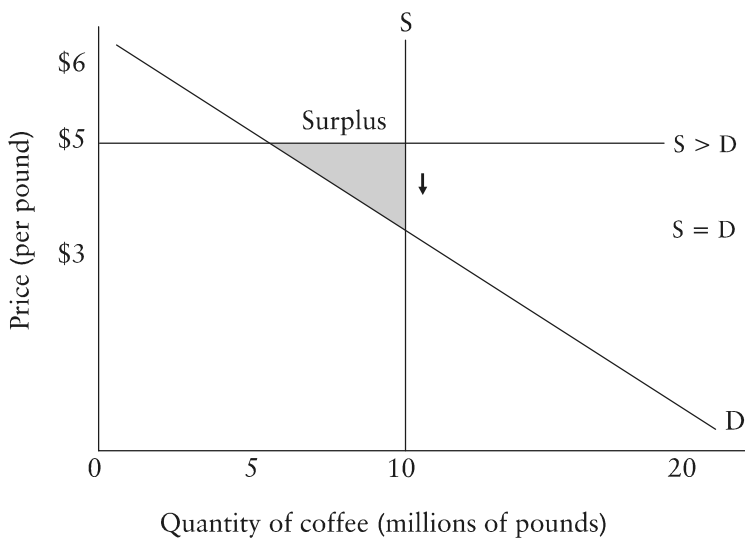


FIGURE 2.4 — SURPLUS

At a price of \$5 for coffee, only 6 million pounds are purchased, leaving 4 million pounds of unsold surplus. The pressure of the surplus, and the consequent losses, will induce sellers to lower their price, and as the price falls, the quantity purchased will increase. This pressure continues until the intersection price of \$3 is reached, at which point the market is *cleared*, that is, there is no more unsold surplus, and supply is just equal to demand. People want to buy just the amount of coffee available, no more and no less.

At a price higher than the intersection, then, supply is greater than demand, and market forces will then impel a lowering of price until the unsold surplus is eliminated, and supply and demand are equilibrated. These market forces which lower the excessive price and clear the market are powerful and twofold: the desire of every businessman to increase profits and to avoid losses, and the free price system, which reflects economic changes and responds to underlying supply and demand changes. The profit motive and the free price system are the forces that equilibrate supply and demand, and make price responsive to underlying market forces.

On the other hand, suppose that the price, instead of being above the intersection, is below the intersection price. Suppose the price is at \$1 a pound. In that case, the quantity demanded by consumers, the amount of coffee the consumers wish to purchase at that price, is much greater than the 10 million pounds that they would buy at \$3. Suppose that quantity is 15 million pounds. But, since there are only 10 million pounds available to satisfy the 15 million pound demand at the low price, the coffee will then rapidly disappear from the shelves, and we would experience a *shortage* of coffee (shortage being present when something cannot be purchased at the existing price).

The coffee market would then be as shown in Figure 2.5.

Thus, at the price of \$1, there is a shortage of 4 million pounds, that is, there are only 10 million pounds of coffee available to satisfy a demand for 14 million. Coffee will disappear quickly from the shelves, and then the retailers, emboldened by a

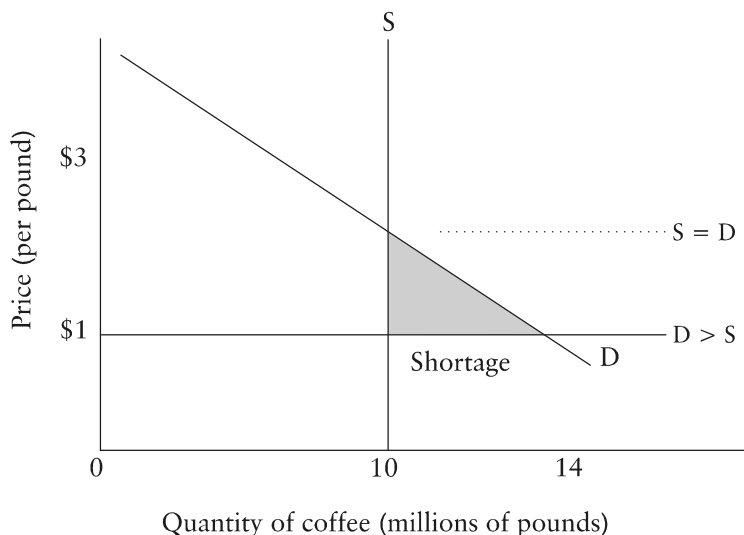


FIGURE 2.5 — SHORTAGE

desire for profit, will raise their prices. As the price rises, the shortage will begin to disappear, until it disappears completely when the price goes up to the intersection point of \$3 a pound. Once again, free market action quickly eliminates shortages by raising prices to the point where the market is cleared, and demand and supply are again equilibrated.

Clearly then, the profit-loss motive and the free price system produce a built-in “feedback” or governor mechanism by which the market price of any good moves so as to clear the market, and to eliminate quickly any surpluses or shortages. For at the intersection point, which tends always to be the market price, supply and demand are finely and precisely attuned, and neither shortage nor surplus can exist (Figure 2.6).

Economists call the intersection price, the price which tends to be the daily market price, the “equilibrium price,” for two reasons: (1) because this is the *only* price that equilibrates supply and demand, that equates the quantity available for sale with the quantity buyers wish to purchase; and (2) because, in an analogy with the physical sciences, the intersection price is the only price

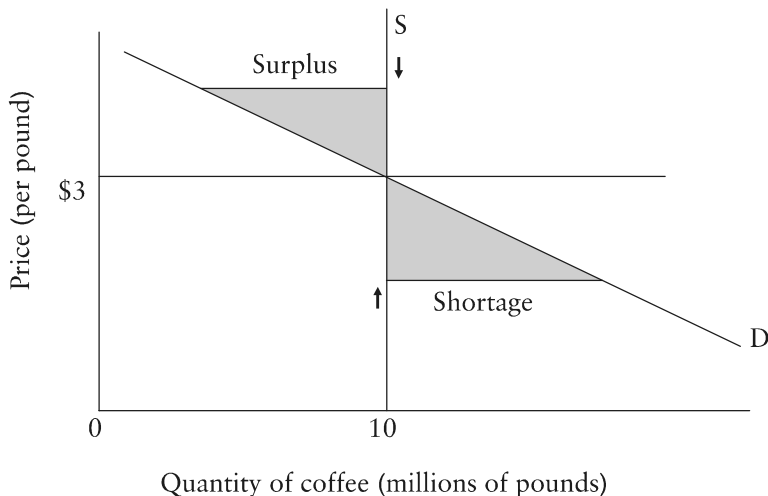


FIGURE 2.6 — TOWARD EQUILIBRIUM

to which the market tends to move. And, if a price is displaced from equilibrium, it is quickly impelled by market forces to return to that point—just as an equilibrium point in physics is where something tends to stay and to return to if displaced.

If the price of a product is determined by its supply and demand and if, according to our example, the equilibrium price, where the price will move and remain, is \$3 for a pound of coffee, why does any price ever *change*? We know, of course, that prices of all products are changing all the time. The price of coffee does not remain contentedly at \$3 or any other figure. How and why does any price change ever take place?

Clearly, for one of two (more strictly, three) reasons: either D changes, or S changes, or both change at the same time. Suppose, for example, that S falls, say because a large proportion of the coffee crop freezes in Brazil, as it seems to do every few years. A drop in S is depicted in Figure 2.7.

Beginning with an equilibrium price of \$3, the quantity of coffee produced and ready for sale on the market drops from 10 million to 6 million pounds. S changes to S' , the new vertical supply

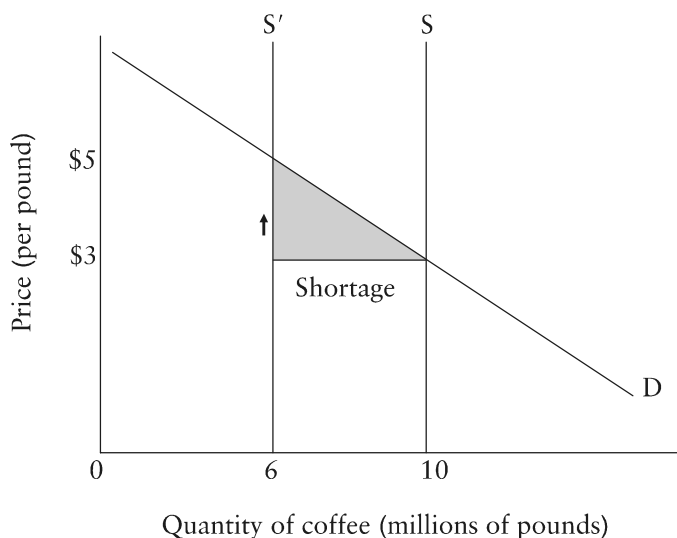


FIGURE 2.7 — DECLINE IN SUPPLY

line. But this means that at the new supply, S' , there is a shortage of coffee at the old price, amounting to 4 million pounds. The shortage impels coffee sellers to raise their prices, and, as they do so, the shortage begins to disappear, until the new equilibrium price is achieved at the \$5 price.

To put it another way, all products are scarce in relation to their possible use, which is the reason they command a price on the market at all. Price, on the free market, performs a necessary *rationing* function, in which the available pounds or bushels or other units of a good are allocated freely and voluntarily to those who are most willing to purchase the product. If coffee becomes scarcer, then the price rises to perform an increased rationing function: to allocate the smaller supply of the product to the most eager purchasers. When the price rises to reflect the smaller supply, consumers cut their purchases and shift to other hot drinks or stimulants until the quantity demanded is small enough to equal the lower supply.

On the other hand, let us see what happens when the supply increases, say, because of better weather conditions or increased

productivity due to better methods of growing or manufacturing the product. Figure 2.8 shows the result of an increase in S:

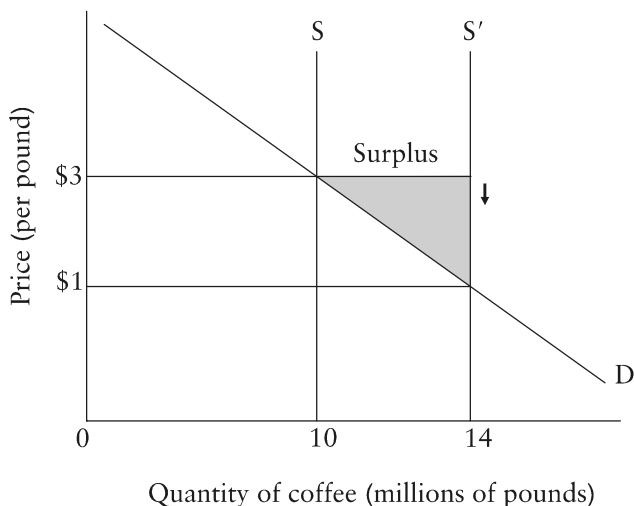


FIGURE 2.8 — INCREASE OF SUPPLY

Supply increases from 10 to 14 million pounds or from S to S'. But this means that at the old equilibrium price, \$3, there is now an excess of supply over demand, and 4 million pounds will remain unsold at the old price. In order to sell the increased product, sellers will have to cut their prices, and as they do so, the price of coffee will fall until the new equilibrium price is reached, here at \$1 a pound. Or, to put it another way, businessmen will now have to cut prices in order to induce consumers to buy the increased product, and will do so until the new equilibrium is reached.

In short, price responds inversely to supply. If supply increases, price will fall; if supply falls, price will rise.

The other factor that can and does change and thereby alters equilibrium price is demand. Demand can change for various reasons. Given total consumer income, any increase in the demand for one product necessarily reflects a fall in the demand for another. For an increase in demand is defined as a willingness by

buyers to spend more money on—that is, to buy more—of a product at any given hypothetical price. In our diagrams, such an “increase in demand” is reflected in a shift of the entire demand curve upward and to the right. But given total income, if consumers are spending more on Product A, they must necessarily be spending less on Product B. The demand for Product B will decrease, that is, consumers will be willing to spend less on the product at any given hypothetical price. Graphically, the entire demand curve for B will shift downward and to the left. Suppose that we are now analyzing a shift in consumer tastes toward beef and away from pork. In that case, the respective markets may be analyzed as follows:

We have postulated an increase in consumer preference for beef, so that the demand curve for beef increases, that is, shifts upward and to the right, from D to D' . But the result of the increased demand is that there is now a shortage at the old equilibrium price, OX , so that producers raise their prices until the shortage is eliminated and there is a new and higher equilibrium price, OY .

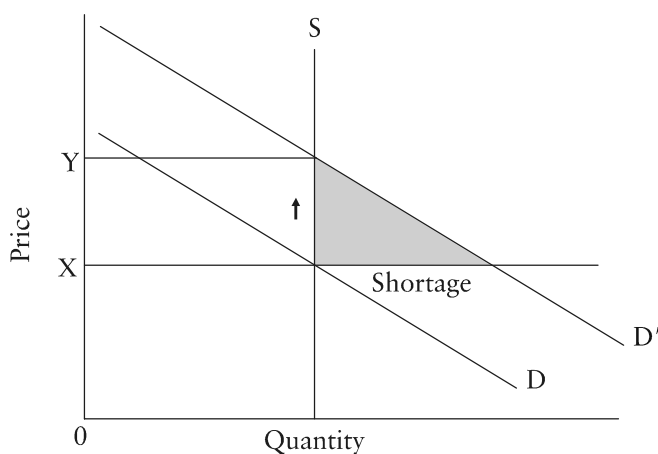


FIGURE 2.9 — THE BEEF MARKET: INCREASE IN DEMAND

On the other hand, suppose that there is a drop in preference, and therefore a fall in the demand for pork. This means that the demand curve for pork shifts downward and to the left, from D to D' , as shown in Figure 2.10:

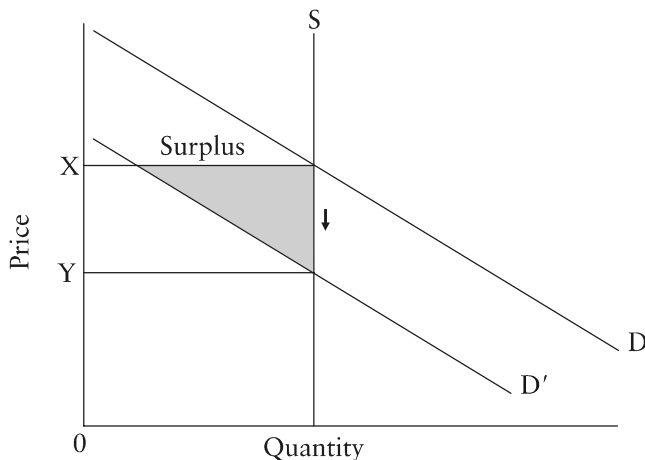


FIGURE 2.10 — THE PORK MARKET: DECLINE IN DEMAND

Here, the fall in demand from D to D' means that at the old equilibrium price for pork, OX , there is now an unsold surplus because of the decline in demand. In order to sell the surplus, therefore, producers must cut the price until the surplus disappears and the market is cleared again, at the new equilibrium price OY .

In sum, price responds directly to changes in demand. If demand increases, price rises; if demand falls, the price drops.

We have been treating supply throughout as a given, which it always is at any one time. If, however, demand for a product increases, *and* that increase is perceived by the producers as lasting for a long period of time, future supply will increase. More beef, for example, will be grown in response to the greater demand and the higher price and profits. Similarly, producers will cut future supply if a fall in prices is thought to be permanent.

Supply, therefore, will respond over time to future demand as anticipated by producers. It is this response by supply to changes in expected future demand that gives us the familiar forward-sloping, or rising supply curves of the economics textbooks.

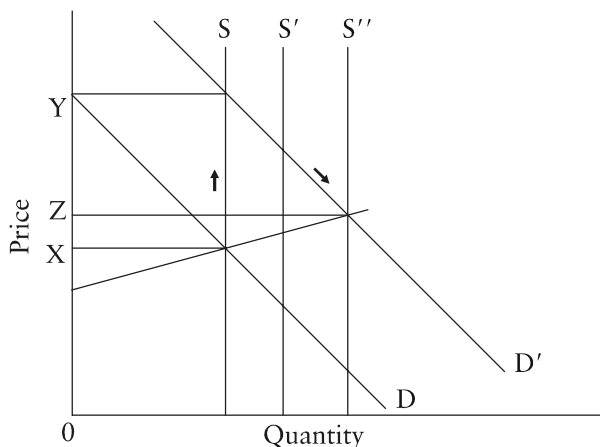


FIGURE 2.11 — THE BEEF MARKET: RESPONSE OF SUPPLY

As shown in Figure 2.9, demand increases from D to D' . This raises the equilibrium price of beef from OX to OY , given the initial S curve, the initial supply of beef. But if this new higher price OY is considered permanent by the beef producers, supply will increase over time, until it reaches the new higher supply S'' . Price will be driven back down by the increased supply to OZ . In this way, higher demand pulls out more supply over time, which will lower the price.

To return to the original change in demand, on the free market a rise in the demand for and price of one product will necessarily be counterbalanced by a fall in the demand for another. The only way in which consumers, especially over a sustained period of time, can increase their demand for *all* products is if consumer incomes are increasing overall, that is, if consumers have more money in their pockets to spend on all products. But

this can happen only if the stock or supply of money available increases; only in that case, with more money in consumer hands, can most or all demand curves rise, can shift upward and to the right, and prices can rise overall.

To put it another way: a continuing, sustained *inflation*—that is, a persistent rise in overall prices—can either be the result of a persistent, continuing fall in the supply of most or all goods and services, *or* of a continuing rise in the supply of money. Since we *know* that in today's world the supply of most goods and services rises rather than falls each year, and since we know, also, that the money supply keeps rising substantially every year, then it should be crystal clear that increases in the supply of money, *not* any sort of problems from the supply side, are the fundamental cause of our chronic and accelerating problem of inflation. Despite the currently fashionable supply-side economists, inflation is a demand-side (more specifically monetary or money supply) rather than a supply-side problem. Prices are continually being pulled up by increases in the quantity of money and hence of the monetary demand for products.

entirely different good (berries from Crusoe). Similarly, if, because of feelings of friendship or hostility, receiving berries from Crusoe takes on a different quality from that of receiving berries from Jones, the two packets of berries are no longer of equal serviceability to Jackson, and therefore they become for him *two different goods*. If these feelings cause him to sell to Jones for 4,000 berries rather than to Crusoe for 5,000 berries, this does not mean that he chooses a lower price for the same good; he chooses between two different goods—berries from Crusoe and berries from Jones. Thus, at all times, an actor will sell his product at the highest possible price in terms of the good received.

Clearly, the converse is true for the buyer. *The buyer will always purchase his good at the lowest possible price.* This truth can be traced in the example just discussed, since, at the point that Jackson was a seller of the cow, he was also a *buyer of the berries*. Where the good in question—berries—was comparable, he bought at the lowest possible price—say $1/5,000$ cow per berry in preference to $1/4,000$ cow per berry. In cases where Jackson chooses the latter price, the two berries are no longer the same, but different, goods. If, to buy berries, the purchaser has to range further afield or buy from someone he dislikes, then this good becomes a different one in kind from the good closer by or sold by a friend.

5. Determination of Price: Equilibrium Price²²

One of the most important problems in economic analysis is the question: What principles determine the formation of prices on the free market? What can be said by logical derivation from the fundamental assumption of human action in order to explain the determination of all prices in interpersonal exchanges, past, present, and future?

²²Cf. Böhm-Bawerk, *Positive Theory of Capital*, pp. 195–222. Also cf. Fetter, *Economic Principles*, pp. 42–72; and Menger, *Principles of Economics*, pp. 191–97.

It is most convenient to begin with a case of *isolated exchange*, a case where only two isolated parties are involved in the exchange of two goods. For example, Johnson and Smith are considering a possible exchange of a horse of the former for some barrels of fish possessed by the latter. The question is: What can economic analysis say about the determinants of the exchange rate established between the two goods in the exchange?

An individual will decide whether or not to make an exchange on the basis of the relative positions of the two goods on his value scale. Thus, suppose the value scale of Smith, the possessor of the fish, is as follows:

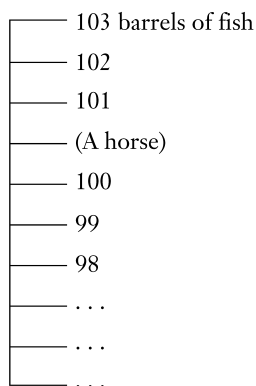


FIGURE 8. SMITH'S VALUE SCALE

(Any desired numbers of rank could be assigned to the various quantities, but these are not necessary here.)

It is clear that Smith would be willing to acquire a horse from Johnson if he could give up *100 barrels of fish or less*. One hundred barrels or less are less valuable to Smith than the horse. On the other hand, 101 or more barrels of fish are more valuable to him than the horse. Thus, if the *price* of the horse in terms of the fish offered by Smith is *100 barrels or less*, then Smith will make the exchange. If the price is 101 barrels or more, then the exchange will not be made.

Suppose Johnson’s value scale looks like this:

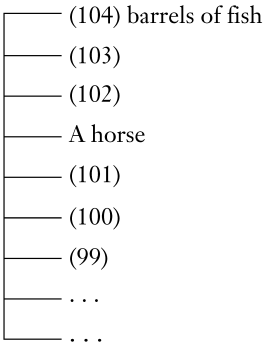


FIGURE 9. JOHNSON’S VALUE SCALE

Then, Johnson will not give up his horse for less than 102 barrels of fish. If the price offered for his horse is less than 102 barrels of fish, he will not make the exchange. Here, it is clear that *no exchange will be made*; for at Johnson’s minimum selling price of 102 barrels of fish, it is more beneficial for Smith to keep the fish than to acquire the horse.

In order for an exchange to be made, then, the *minimum selling price of the seller must be lower than the maximum buying price of the buyer* for that good. In this case, it must be lower than the price of 100 barrels of fish per horse. Suppose that this condition is met, and Johnson’s value scale is as follows:

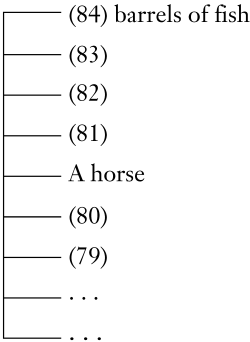


FIGURE 10. JOHNSON’S VALUE SCALE

Johnson will sell the horse for any amount of fish at or above 81 barrels. This, then, is his minimum selling price for the horse. With this as Johnson's value scale, and Smith's as pictured in Figure 8, what price will they agree upon for the horse (and, conversely, for the fish)? All analysis can say about this problem is that, since the exchange must be for the mutual benefit of both parties, *the price of the good in isolated exchange will be established somewhere between the maximum buying price and the minimum selling price*, i.e., the price of the horse will be somewhere between 100 barrels and 81 barrels of fish. (Similarly, the price of the fish will be set somewhere between $\frac{1}{81}$ and $\frac{1}{100}$ of a horse per barrel.) We cannot say at which point the price will be set. That depends on the data of each particular case, on the specific conditions prevailing. In particular, it will depend upon the *bargaining skill* of the two individuals. Clearly, Johnson will try to set the price of the horse as high as possible, while Smith will try to set the price as low as possible. This is based on the principle that the seller of the product tries to obtain the highest price, while the buyer tries to secure the lowest price. We cannot predict the point that the two will agree on, except that it will be somewhere in this range set by the two points.²³

Now, let us gradually remove our assumption of isolated exchange. Let us first assume that Smith has a competitor, Brown, a rival in offering fish for the desired horse of Johnson's. We assume that the fish offered by Brown is of identical serviceability to Johnson as the fish offered by Smith. Suppose that Smith's value scale is the same as before, but that Brown's value scale is such that the horse is worth more than 90 barrels of fish to him, but less than 91 barrels. The value scales of the three individuals will then appear as is shown in Figure 11.

²³Of course, given other value scales, the final prices might be determinate at our point, or within a narrow range. Thus, if Smith's maximum buying price is 87, and Johnson's minimum selling price is 87, the price will be uniquely determined at 87.

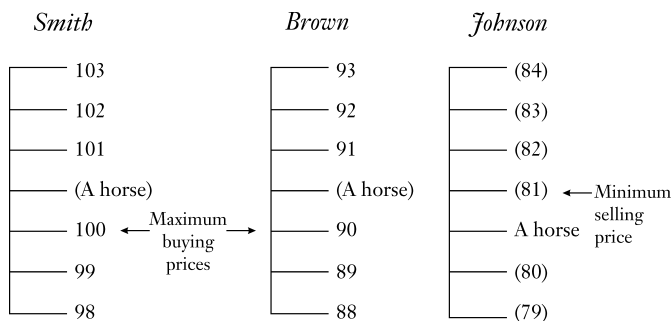


FIGURE 11. VALUE SCALES OF THREE INDIVIDUALS

Brown and Smith are competing for the purchase of Johnson's horse. Clearly, only one of them can make the exchange for the horse, and since their goods are identical to Johnson, the latter's decision to exchange will be decided by the price offered for the horse. Obviously, Johnson will make the exchange with that potential buyer who will offer the highest price. Their value scales are such that Smith and Brown can continue to overbid each other as long as the price range is between 81 and 90 barrels of fish per horse. Thus, if Smith offers Johnson an exchange at 82 barrels per horse, Brown can compete by raising the bid to 84 barrels of fish per horse, etc. This can continue, however, only until Brown's maximum buying price has been exceeded. If Smith offers 91 barrels for the horse, it no longer pays for Brown to make the exchange, and he drops out of the competition. Thus, the price in the exchange will be high enough to exclude the "less capable" or "less urgent" buyer—the one whose value scale does not permit him to offer as high a price as the other, "more capable," buyer. We do not know exactly what the price will be, but we do know that it will be set by bargaining *somewhere at or below the maximum buying price of the most capable buyer and above the maximum buying price of the next most capable buyer*. It will be somewhere between 100 barrels and 91 barrels, and the exchange will be made with Smith. We see that the addition of another competing buyer for the product considerably narrows the zone of bargaining in determining the price that will be set.

This analysis can easily be extended to a case of one seller and n number of buyers (each offering the same commodity in exchange). Thus, suppose that there are five potential buyers for the horse, all offering fish, whose value scales are as follows:

Smith	A	B	C	Brown
101 (A horse) 100	100 (A horse) 99	98 (A horse) 97	95 (A horse) 94	91 (A horse) 90

FIGURE 12. VALUE SCALES OF FIVE POTENTIAL PURCHASERS

With only one horse to be disposed of to one buyer, the buyers overbid each other until each must drop out of the competition. Finally, Smith can outbid A, his next most capable competitor, only with a price of 100. We see that in this case, the price in the exchange is uniquely determined—once the various value scales are given—at 100, since at a lower price A is still in the bidding, and, at a higher price, no buyer will be willing to conclude the exchange. At any rate, even if the value scales are not such as to determine the price uniquely, the addition of more competitors greatly narrows the bargaining zone. The general rule still holds: The price will be between the maximum buying price of the most capable and that of the next most capable competitor, including the former and excluding the latter.²⁴

It is also evident that the narrowing of the bargaining zone has taken place in an upward direction, and to the advantage of the seller of the product.

The case of one-sided competition of *many sellers with just one buyer* is the direct converse of the above and may be considered by merely reversing the example and considering the price of the fish instead of the price of the horse. As more sellers of the

²⁴Auction sales are examples of markets for one unit of a good with one seller and many buyers. Cf. Boulding, *Economic Analysis*, pp. 41–43.

fish competed to conclude the exchange with the one buyer, the zone of determination of the price of fish narrowed, although this time in a downward direction and to the further advantage of the buyer. As more sellers were added, each tried to *underbid* his rival—to offer a lower price for the product than his competitors. The sellers continued to underbid each other until all but the one seller were excluded from the market. In a case of many sellers and one buyer, the price will be set at a *point between the minimum selling price of the second most capable and that of the most capable competitor*—strictly, at a point below the former and down to or including the latter. In the final example above, the point was pushed down to be uniquely determined at the latter point— $1/100$ horse per barrel.

We have so far considered the cases of one buyer and more than one seller, and of one seller and more than one buyer. We now come to the only case with great importance in a modern, complex economy based on an intricate network of exchanges: *two-sided competition of buyers and sellers*. Let us therefore consider a market with any number of competing buyers and sellers. Any product could be considered, but our hypothetical example will continue to be the sale of horses in exchange for fish (with the horses as well as the fish considered by all parties as homogeneous units of the same good). The following is a list of the maximum buying prices of the various buyers, based on the valuations on their respective value scales:

<i>Buyers of Horses</i>	<i>Maximum Buying Price</i>
X1	100 barrels of fish
X2	98
X3	95
X4	91
X5	89
X6	88
X7	86
X8	85
X9	83

The following is a list of the minimum selling prices of the various sellers on the market:

<i>Sellers of Horses</i>	<i>Minimum Selling Prices</i>
Z1	81 barrels of fish
Z2	83
Z3	85
Z4	88
Z5	89
Z6	90
Z7	92
Z8	96

The “most capable buyer” of horses we recognize as Smith, with a buying price of 100 barrels. Johnson is the “most capable seller”—the seller with the lowest minimum selling price—at 81 barrels. The problem is to find the principle by which the price, or prices, of the exchanges of horses will be determined.

Now, let us first take the case of X1—Smith. It is clear that it is to the advantage of Smith to make the exchange at a price of 100 barrels for the horse. Yet it is to Smith’s greater advantage to buy the good at the lowest possible price. He is not engaged in overbidding his competitors merely for the sake of overbidding. He will try to obtain the good for the lowest price that he can. Therefore, Smith will prefer to begin bidding for a horse at the lowest prices offered by his competitors, and only raise the offered price if it becomes necessary to do so in order to avoid being shut out of the market. Similarly, Johnson would make an advantageous sale at a price of 81 barrels. However, he is interested in selling his product at the highest possible price. He will underbid his competitor only if it becomes necessary to do so in order to avoid being shut out of the market without making a sale.

It is evident that buyers will tend to start negotiations by offering as low prices as possible, while sellers will tend to start by asking for as high a price as they think they can obtain. Clearly, this

preliminary “testing of the market” will tend to be more prolonged in a “new” market, where conditions are unfamiliar, while it will tend to be less prolonged in an “old” market, where the participants are relatively familiar with the results of the price-formation process in the past and can estimate more closely what the results will be.

Let us suppose that buyers begin by offering the low price of 82 barrels for a horse. Here is a price at which each of the buyers would be glad to make a purchase, but only one seller, Z1, would be willing to sell at 82. It is possible that Z1, through ignorance, might conclude the exchange with some one of the buyers at 82, without realizing that he could have obtained a higher price. It is also possible that the other buyers will, through ignorance, permit the buyer to get away with this windfall without overbidding him for this cheap horse. But such a result is not very likely. It seems most likely that Z1 will not sell at such a low price, and that the buyers would immediately overbid any attempt by one of their number to conclude an exchange at that price. Even if, by some chance, one exchange was concluded at 82, it is obvious that such a price could not last. Since no other seller would make an exchange at that price, the price of further exchanges would have to rise further, as a result of upbidding by buyers.

Let us assume at this point that no exchange will be made at this price because of the further upbidding of the buyers and the knowledge of this by the sellers. As the offering price rises, the least capable buyers, as in the previous case, begin to be excluded from the market. A price of 84 will bring two sellers into the market, but will exclude X9 from the buyer’s side. As the offering price rises, the disproportion between the *amount offered for sale* and the *amount demanded for purchase* at the given price diminishes, but as long as the latter is greater than the former, mutual overbidding of buyers will continue to raise the price. The amount offered for sale at each price is called the *supply*; the amount demanded for purchase at each price is called

the *demand*. Evidently, at the first price of 82, the supply of horses on the market is one; the demand for horses on the market is nine. Only one seller would be willing to sell at this price, while all nine buyers would be willing to make their purchase. On the basis of the above tabulations of maximum buying prices and minimum selling prices, we are able to present a list of the quantities of the good that will be demanded and supplied at each hypothetical price.

TABLE 2

PRICE	SUPPLIED	DEMANDED	PRICE	SUPPLIED	DEMANDED
80	0 horses	9 horses	91	6 horses	4 horses
81	1	9	92	7	3
82	1	9	93	7	3
83	2	9	94	7	3
84	2	8	95	7	3
85	3	8	96	8	2
86	3	7	97	8	2
87	3	6	98	8	2
88	4	6	99	8	1
89	5	5	100	8	1
90	6	4	101	8	0

This table reflects the progressive entry into the market of the sellers as the price increases and the dropping out of the buyers as the price increases. As was seen above, as long as the demand exceeds the supply at any price, buyers will continue to overbid and the price will continue to rise.

The converse occurs if the price begins near its highest point. Thus, if sellers first demand a price of 101 barrels for the horse, there will be eight eager sellers and no buyers. At a price of 99 the sellers may find one eager buyer, but chances are that a sale will not be made. The buyer will realize that there is no point in paying such a high price, and the other sellers will

eagerly underbid the one who tries to make the sale at the price of 99. Thus, when the price is so high that the *supply exceeds the demand* at that price, underbidding of suppliers will drive the price downward. As the tentative price falls, more sellers are excluded from the market, and more buyers enter it.

If the overbidding of buyers will drive the price up whenever the quantity demanded is greater than the quantity supplied, and the underbidding of sellers drives the price down whenever supply is greater than demand, it is evident that the price of the good will find a resting point where the quantity demanded is equal to the quantity supplied, i.e., where supply equals demand. At this price and at this price only, *the market is cleared*, i.e., there is no incentive for buyers to bid prices up further or for sellers to bid prices down. In our example, this final, or *equilibrium price*, is 89, and at this price, five horses will be sold to five buyers. This equilibrium price is the price at which the good will tend to be set and sales to be made.²⁵

Specifically, the sales will be made to the five most capable buyers at that price: X1, X2, X3, X4, and X5. The other less-capable (or less urgent) buyers are excluded from the market, because their value scales do not permit them to buy horses at

²⁵It is possible that the equilibrium point will not be uniquely determined at one definite price. Thus, the pattern of supply and demand schedules might be as follows:

<i>P</i>	<i>S</i>	<i>D</i>
89	5	6
90	6	5

The inequality is the narrowest possible, but there is no one point of equality. In that case, if the units are further divisible, then the price will be set to clear the market at a point in between, say 89.5 barrels of fish per horse. If both goods being exchanged are indivisible further, however, such as cows against horses, then the equilibrium price will be either 89 or 90, and this will be the closest approach to equilibrium rather than equilibrium itself.

that price. Similarly, sellers Z1–Z5 are the ones that make the sale at 89; the other sellers are excluded from the market, because their value scales do not permit them to be in the market at that price.

In this horse-and-fish market, Z5 is the least capable of the sellers who have been able to stay in the market. Z5, whose minimum selling price is 89, is just able to make his sale at 89. He is the *marginal seller*—the seller at the margin, the one who would be excluded with a slight fall in price. On the other hand, X5 is the least capable of the buyers who have been able to stay in the market. He is the *marginal buyer*—the one who would be excluded by a slight rise in price. Since it would be foolish for the other buyers to pay more than they must to obtain their supply, they will also pay the same price as the marginal buyer, i.e., 89. Similarly, the other sellers will not sell for less than they could obtain; they will sell at the price permitting the marginal seller to stay in the market.

Evidently, the more capable or “more urgent,” buyers (and sellers)—the *supramarginal* (which includes the marginal)—obtain a psychic surplus in this exchange, for they are better off than they would have been if the price had been higher (or lower). However, since goods can be ranked only on each individual’s value scale, and no *measurement* of psychic gain can be made either for one individual or between different individuals, little of value can be said about this psychic gain except that it exists. (We cannot even make the statement, for example, that the psychic gain in exchange obtained by X1 is greater than that of X5.) The excluded buyers and sellers are termed *submarginal*.

The specific feature of the “clearing of the market” performed by the equilibrium price is that, at this price alone, all those buyers and sellers who are willing to make exchanges can do so. At this price five sellers with horses find five buyers for the horses; all who wish to buy and sell at this price can do so. At any other price, there are either frustrated buyers or frustrated sellers. Thus, at a price of 84, eight people would like to buy at this price, but only two horses are available. At this price,

there is a great amount of “unsatisfied demand” or *excess demand*. Conversely, at a price of, say, 95, there are seven sellers eager to supply horses, but only three people willing to demand horses. Thus, at this price, there is “unsatisfied supply,” or *excess supply*. Other terms for excess demand and excess supply are “shortage” and “surplus” of the good. Aside from the universal fact of the scarcity of all goods, a price that is below the equilibrium price creates an additional shortage of supply for demanders, while a price above equilibrium creates a surplus of goods for sale as compared to demands for purchase. We see that the market process always tends to eliminate such shortages and surpluses and establish a price where demanders can find a supply, and suppliers a demand.

It is important to realize that this process of overbidding of buyers and underbidding of sellers always takes place in the market, even if the surface aspects of the specific case make it appear that only the sellers (or buyers) are setting the price. Thus, a good might be sold in retail shops, with prices simply “quoted” by the individual seller. But the same process of bidding goes on in such a market as in any other. If the sellers set their prices below the equilibrium price, buyers will rush to make their purchases, and the sellers will find that shortages develop, accompanied by queues of buyers eager to purchase goods that are unavailable. Realizing that they could obtain higher prices for their goods, the sellers raise their quoted prices accordingly. On the other hand, if they set their prices above the equilibrium price, surpluses of unsold stocks will appear, and they will have to lower their prices in order to “move” their accumulation of unwanted stocks and to clear the market.

The case where buyers quote prices and therefore appear to set them is similar. If the buyers quote prices below the equilibrium price, they will find that they cannot satisfy all their demands at that price. As a result, they will have to raise their quoted prices. On the other hand, if the buyers set the prices too high, they will find a stampede of sellers with unsalable

stocks and will take advantage of the opportunity to lower the price and clear the market. Thus, regardless of the *form* of the market, the result of the market process is always to tend toward the establishment of the equilibrium price via the mutual bidding of buyers and sellers.

It is evident that, if we eliminate the assumption that no preliminary sales were made before the equilibrium price was established, this does not change the results of the analysis. Even if, through ignorance and error, a sale was made at a price of 81 or 99, these prices still will be ephemeral and temporary, and the final price for the good will tend to be the equilibrium price.

Once the market price is established, *it is clear that one price must rule over the entire market*. This has already been implied by the fact that all buyers and sellers will tend to exchange at the same price as their marginal competitors. There will always be a tendency on the market to establish one and only one price at any time for a good. Thus, suppose that the market price has been established at 89, and that one crafty seller tries to induce a buyer to buy at 92. It is evident that no buyer will buy at 92 when he knows that he can buy on the regular market at 89. Similarly, no seller will be willing to sell at a price below the market if he knows that he can readily make his sale at 89. If for example, an ignorant seller sells a horse at 87, the buyer is likely to enter the market as a seller to sell the horse at 89. Such drives for *arbitrage gains* (buying and selling to take advantage of discrepancies in the price of a good) act quickly to establish one price for one good over the entire market. Such market prices will tend to change only when changing supply and demand conditions alter the equilibrium price and establish a condition of excess supply or excess demand where before the market had been cleared.

A clearer picture of equilibrium prices as determined by supply and demand conditions will be derived from the graphical representation in Figure 13.

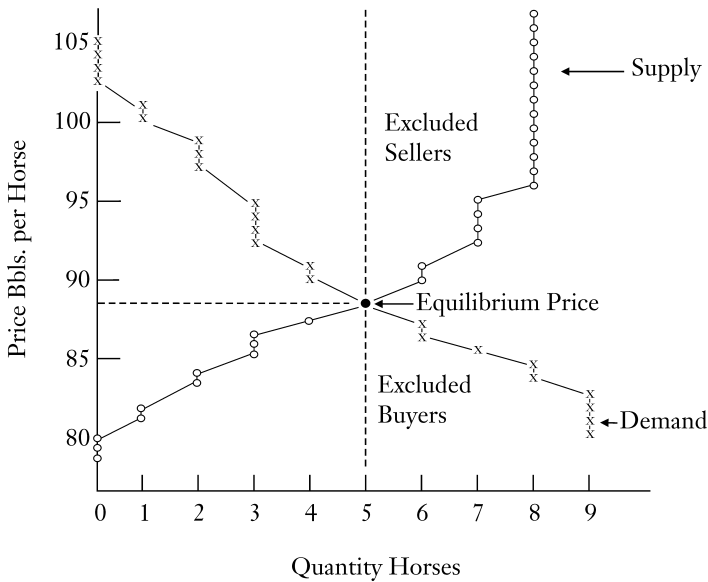


FIGURE 13. DETERMINATION OF EQUILIBRIUM PRICE

It is evident that, as the price increases, new suppliers with higher minimum selling prices are brought into the market, while demanders with low maximum buying prices will begin to drop out. Therefore, as the price decreases, the quantity demanded must always either remain the same or increase, never decrease. Similarly, as the price decreases, the amount offered in supply must always decrease or remain the same, never increase. Therefore, the demand curve must always be vertical or rightward-sloping as the price decreases, while the supply curve must always be vertical or leftward-sloping as the price decreases. The curves will intersect at the equilibrium price, where supply and demand are equal.

Clearly, once the zone of intersection of the supply and demand curves has been determined, it is the buyers and sellers at the margin—in the area of the equilibrium point—that determine what the equilibrium price and the quantity exchanged will be.

The tabulation of supply offered at any given price is known as the *supply schedule*, while its graphical presentation, with the points connected here for the sake of clarity, is known as the *supply curve*. Similarly, the tabulation of demand is the *demand schedule*, and its graphical representation the *demand curve*, for each product and market. Given the point of intersection, the demand and supply curves above and below that point could take many conceivable shapes without affecting the equilibrium price. The direct determinants of the price are therefore the marginal buyers and sellers, while the valuations of the supra-marginal people are important in determining *which* buyers and sellers will be at the margin. The valuations of the *excluded buyers and sellers* far beyond the margin have no direct influence on the price and will become important only if a change in the market demand and supply schedules brings them near the intersection point.

Thus, given the intersection point, the pattern of supply and demand curves (represented by the solid and dotted lines) could be at least any one of the variants shown in Figure 14.

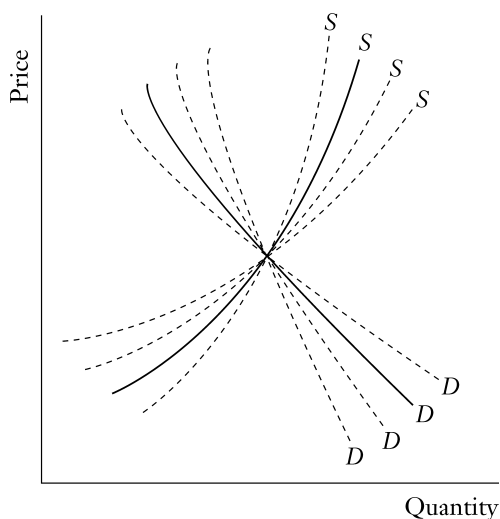


FIGURE 14. POSSIBLE PATTERNS

but will, instead, join its fellow submarginal land sites in idleness. If, on the other hand, the new land is superior, and therefore would earn a positive rent, it comes into use. There has been, however, no increase in labor or capital, so that it will not be profitable for these factors to be employed on a greater total amount of land than before. The new productive land, competing with the older land, will therefore push the previously just-marginal land into the submarginal category. Labor will always employ capital on the best land, and so the new acquisition of supramarginal land will oust the previously marginal land from production. Since the new land is more value-productive than the old marginal land which it replaces, the change increases the total output of goods in the society.

D. SUPPLY OF LABOR

In the case of a labor factor, the particular demand curve for its use will slope downward, and the particular supply curve of a labor factor for a specific use will slope upward to the right. In fact, since labor is the relatively nonspecific factor, the particular supply curve of a labor factor is likely to be flatter than the supply curve of the (usually more specific) land factor. Thus, the *particular* supply and demand curves for a labor factor may be as represented in Figure 63.

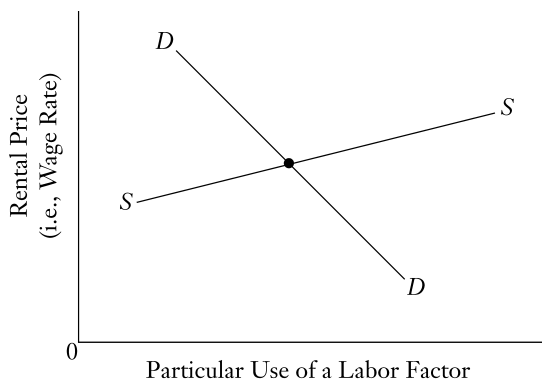


FIGURE 63. SUPPLY OF AND DEMAND FOR
LABOR FOR A PARTICULAR USE

The general demand curve for a labor factor will also slope downward in the relevant area. One of the complications in the analysis of labor is the alleged occurrence of a “backward supply curve of labor.” This happens when workers react to higher wage rates by reducing their supply of labor hours, thus taking some of their higher incomes as increased leisure. This may very well occur, but it will not be relevant to the determination of the wages of a factor. In the first place, we saw that particular supply curves of a factor will be flat because of the competition of alternative uses. But even the *general* supply curve of a factor will be “forward-sloping,” i.e., rightward-sloping. For labor, though hardly homogeneous, is a peculiarly nonspecific factor. Therefore, higher wage rates for one set of factors will tend to stimulate other laborers to train themselves or bestir themselves to enter this particular “market.” Since skills differ, this does not mean that all wages will be equalized. It does mean, however, that *general* supply curves for a labor factor will also be forward-sloping. We might arrange an array of general supply and demand curves for various labor factors as in Figure 64.

The only case in which a backward supply curve may occur is for the total supply of *all* labor factors, and here the elements

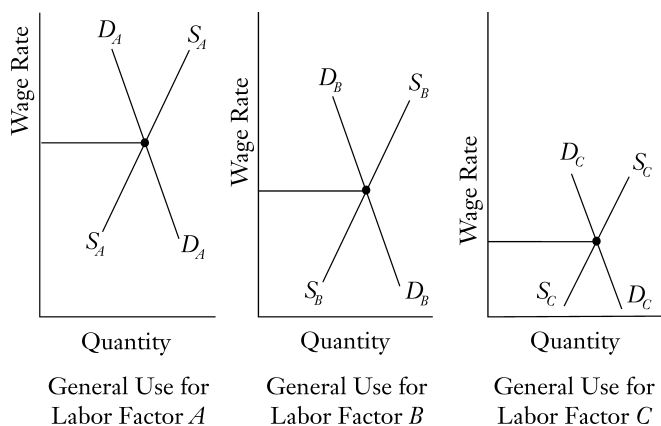


FIGURE 64. GENERAL SUPPLY AND DEMAND CURVES FOR VARIOUS LABOR FACTORS

are so imprecise, since these factors are not homogeneous, that diagrams are of little avail in analysis. Yet this is an important question. As wage rates in general rise, in all their connexity between various specific labor markets, the supply of all labor (i.e., the quantity of labor-hours) can either increase or decrease, depending on the value scales of the individuals concerned. Rising wages may draw nonworking people into the labor force and induce people to work overtime or to obtain an extra part-time job. On the other hand, it may lead to increased leisure and a falling off in total hours worked. Rising wages may lead to population growth, swelling the total supply of labor "in general," or may lead to a cutback in population and the taking of some of the gains of increased wages in the form of increased leisure and an increased standard of living per person in the population.¹⁴ Changes in the total supply or stock of labor-in-general will affect the particular markets by shifting all the specific schedules to the left if the stock decreases, or to the right if it increases.

A backward supply curve might conceivably take place for a land factor as well, when the owner has a high reserve demand for the land in order to enjoy its unused (in the catallactic sense) beauty. In that case, the land would have an increasing marginal disutility of visual enjoyment forgone, just as leisure is forgone in the process of expending labor. In the case of land, since there is not as great a connexity between land factors as there is between nonspecific labor factors, this circumstance will, in fact, impinge more directly on the market rental price. It may be revealed in a backward general supply curve for the *land factor*. Higher rental prices offered for his land will then induce the landowner to withhold more of it, taking the higher income partially in nonexchangeable consumption goods as well as in more money received. These cases may be rare in practice, but

¹⁴There will be such a backward supply curve if the marginal utility of money falls rapidly enough and the marginal disutility of leisure forgone rises rapidly enough as units of labor are sold for higher prices in money.

only because of the freely chosen values of the individuals themselves.

Thus, there is no reason for the would-be preserver of a monument or of a park to complain about the way the market treats his treasured objects. In the free society, these conservationists are at perfect liberty to purchase the sites and preserve them intact. They would, in effect, be deriving consumption services from such acts of preservation.

To return to labor, we have mentioned another component in wage rates. This is the *psychic* income, or psychic disutility, involved in any particular line of work. People, in other words, are often attracted to a certain line of work or to a specific job by other considerations than the monetary income. There may be positive psychic benefits and satisfactions derived from the particular type of work or from the particular firm employing the worker. Similarly, psychic disutilities may be attached to particular jobs.

These psychic elements will enter into the curves for particular uses. In order to isolate such elements, let us suppose for the moment that all laborers are equally value-productive, that labor is a homogeneous factor. In such a world, all wage rates in all occupations would be equal. All industries need not be equally value-productive for this result to occur. For as a result of the connexity of labor, i.e., its nonspecificity, laborers can enter wide ranges of occupations. If we assume, as we do for the moment, that all laborers are equally value-productive, then they will enter a high-wage industry to push the particular supply curve of labor in that industry downward, while quitting workers raise the supply curve of labor in the low-wage industry.

This conclusion follows from the general tendency toward the *uniformity of the price of any good on the market*. If all labor were homogeneous and therefore one factor, its price (wage rate) would be uniform throughout industry, just as the pure interest rate tends to be uniform.

Now let us relax one of the conditions of our hypothetical construct.¹⁵ While retaining the assumption of equal productivity of all laborers, let us now introduce the possibility of psychic benefits or psychic disutilities accruing to workers at particular jobs. Some jobs are actively liked by most people, others actively disliked. These jobs may be common to certain industries or, more narrowly, to individual firms which may be considered particularly pleasant or unpleasant to work for. What will happen to money wage rates and to the supply of labor in the various occupations? It is obvious that, in the generally *disliked* occupation or firm, *higher* money wage rates will be necessary to attract and hold labor in that job. On the other hand, there will be so much labor competing in the generally liked jobs that they will pay *lower* wage rates. In other words, our amended conclusion is that not *money* wage rates, but *psychic* wage rates, will be equalized throughout—psychic wage rates being equal to money wage rates plus or minus a psychic benefit or psychic disutility component.

Many economists have assumed, implicitly or explicitly, an essential homogeneity among laborers. And they have made this assumption not, as we have done, as a purely temporary construct, but as an attempt to describe the real world. The question is an empirical one. It is a fundamental, empirically derived postulate of this book that there is a great variety among

¹⁵It will be noted that we have avoided using the very fashionable term “model” to apply to the analyses in this book. The term “model” is an example of an unfortunate bias in favor of the methodology of physics and engineering, as applied to the sciences of human action. The constructs are imaginary because their various elements never coexist in reality; yet they are necessary in order to draw out, by deductive reasoning and *ceteris paribus* assumptions, the tendencies and causal relations of the real world. The “model” of engineering, on the other hand, is a mechanical construction in miniature, *all parts of which* can and must coexist in reality. The engineering model portrays in itself all the elements and the relations among them that will coexist in reality. For this distinction between an imaginary construct and a model, the writer is indebted to Professor Ludwig von Mises.

men in labor skills, in insight into future events, in ability, intelligence, etc. It seems empirically clear that this is the case.¹⁶ The denials seem to be based on the simple faith that all men are “really” equal in all respects or could be made equal under proper conditions. Generally, the assumptions of uniformity and equality are made implicitly rather than explicitly, perhaps because the absurdities and obvious errors of the position would then become clear. For who would deny that not everyone could be an opera singer or a batting champion?

Some writers try to salvage the uniformity assumption by demonstrating that differences in wages occur solely because of the heavy *cost of training* for certain jobs. Thus, a doctor will earn more than a clerk because, in the nature of the task, a doctor will have to undergo the expenses of years of training (the expenses including actual money costs as well as opportunity costs forgone of earning money in such jobs as clerking). Therefore, in long-run equilibrium, money wage rates will not be uniform in the two fields, but income rates will be enough higher in medicine to just compensate for the loss, so that the *net* wage or income rates, considered over the person’s lifetime, will be the same.

It is true that costs of training do enter in this way into market wage rates. But they do not account for all wage differentials by any means. Inherent differences in personal ability are also vital. Decades of training will not convert the average person into an opera star or a baseball champion.¹⁷

Many writers have based their analyses on the assumption of the homogeneity of all workers. Consequently, when they find

¹⁶For some philosophical discussions of human variation, see Harper, *Liberty*, pp. 61–83, 135–41; Roger J. Williams, *Free and Unequal* (Austin: University of Texas Press, 1953); George Harris, *Inequality and Progress* (Boston: Houghton Mifflin, 1898); Herbert Spencer, *Social Statics* (New York: D. Appleton & Co., 1890), pp. 474–82; A.H. Hobbs, *The Claims of Sociology* (Harrisburg, Pa.: The Stackpole Co., 1951), pp. 23–64; and Hobbs, *Social Problems and Scientism* (Harrisburg, Pa.: The Stackpole Co., 1953), pp. 254–304.

¹⁷Cf. Van Sickle and Rogge, *Introduction to Economics*, pp. 178–81.

that generally well-liked jobs, such as television-directing, pay more than such disliked jobs as ditch-digging, they tend to assume that there is injustice and chicanery afoot. A recognition of differences in labor productivity, however, eliminates this bugbear.¹⁸ In such cases, a psychic component still exists that relatively lowers the wage of the better-liked job, but it is offset by the higher marginal value productivity and skill attached to the latter. Since TV-directing takes more skill than ditch-digging, or rather skill that fewer people have, the wage rates in the two occupations cannot be equalized.

E. PRODUCTIVITY AND MARGINAL PRODUCTIVITY

Great care must be taken in dealing with the productivity concept. In particular, there is danger in using a term such as “productivity of labor.” Suppose, for example, we state that “the productivity of labor has advanced in the last century.” The implication is that the cause of this increase came from within labor itself, i.e., because current labor is more energetic or personally skillful than previous labor. This, however, is not the case. An advancing capital structure increases the *marginal* productivity of labor, because the labor supply has increased less than the supply of capital goods. This increase in the marginal productivity of labor, however, is not due to some special improvement in the labor energy expended. It is due to the increased supply of capital goods. The causal agents of increased wage rates in an expanding economy, then, are *not* primarily the workers themselves, but the capitalist-entrepreneurs who have invested in capital goods. The workers are provided with more and better tools, and so their labor becomes relatively scarcer as compared to the other factors.¹⁹

¹⁸For a treatment of wage rates and geography, see the section below on “The Economics of Location and Spatial Relations.”

¹⁹It should be understood throughout that when we refer to increases in wage rates or ground rents in the expanding economy, we are referring to real, and not necessarily to money, wage rates or ground rents.

That each man receives his marginal value product means that each man is paid what he is worth in producing for consumers. But this does not mean that increases in his worth over the years are necessarily caused by his own improvement. On the contrary, as we have seen, the rise is primarily due to the increasing abundance of capital goods provided by the capitalists.

It is, then, clearly impossible to impute absolute "productivity" to any productive factor or class of factors. In the absolute sense, it is meaningless to try to impute productivity to any factor, since all the factors are necessary to the product. We can discuss productivity only in *marginal terms*, in terms of the productive contribution of a single unit of a factor, given the existence of other factors. This is precisely what entrepreneurs do on the market, adding and subtracting units of factors in an attempt to achieve the most profitable course of action.

Another illustration of the error in attempting to attribute increased "productivity" to the workers themselves occurs within the various segments of the labor market. As we have seen, there is a definite *connexity* between all the occupations on the labor market, since labor is the prime nonspecific factor. As a result, while wage rates are not equalized, psychic wage rates will all tend, in the long run, to move together and maintain a given skill-differential between each occupation. Therefore, when a certain branch of industry expands its capital and production, an increase in DMVP, and therefore in wage rates, is not confined to that particular branch. Because of the *connexity* of the supply of labor, labor tends to leave other industries and enter the new ones, until finally all the wage rates throughout the labor market have risen, while maintaining the same differentials as before.

Suppose, for example, that there is an expansion of capital in the steel industry.²⁰ The MVP of the steel worker increases, and

²⁰This assumes, of course, that there is no offsetting *decline* in capital elsewhere. If there is, then there will be no *general* rise in wages.

his wage rates go up. The increase in wage rates, however, is governed by the fact that the rise will attract workers from more poorly paid industries. For example, suppose that steel workers are receiving 25 grains of gold per hour, while domestic servants receive 15 grains per hour. Now, under the impetus of expansion, the MVP and hence the wage rate of the steel workers go up to 30 grains. The differential has been increased, inducing domestic servants to enter the steel industry, lowering steel wages, and especially raising servants' wages, until the differential is re-established. Thus, a rise in capital investment in steel will increase the wages of workers in domestic service. The latter increase is clearly not caused by some sort of increase in the "productivity" or in the quality of the output of the domestic servants. Rather, their *marginal* value productivity has increased as a result of the greater scarcity of labor in the service trades.

The differentials will not remain precisely constant in practice, of course, since changing investment and changing methods also alter the types of skills required in the economy.

The shift in labor supply will not usually be as abrupt as in our example. Generally, it will take place from one occupation or one grade to a closely similar grade or occupation. Thus, more ditchdiggers might become foremen, more foremen supervisors, etc., so that shifts will take place from grade to grade. It is as if the labor market consisted of linked segments, a change in one segment transmitting itself throughout the chain from each link to the next.

F. A NOTE ON OVERT AND TOTAL WAGE RATES

It is "total wage rates" that are determined on the market. They tend to be equalized on the market and to be set at the DMVP of the worker. *Total wage rates* are the money paid out by the employer for labor services. They do not necessarily correspond to the "take-home pay" of the worker. The latter may be called the "overt wage rates." Thus, suppose that there are two competing employers bidding for the same type of labor.

One employer, Mr. A, pays out a certain amount of money, not in direct wages, but in pension funds or other “welfare” benefits. These benefits, it must be realized, will not be added as a gift from the employer to the workers. They will not be additions to the total wage rates. Overt wage rates paid out by Mr. A will instead be correspondingly *lower* than those paid out by his rival, Mr. B, who does not have to spend on the “welfare” benefits.

To the employer, in other words, it makes no difference in what form workers cost him money, whether in “take-home pay” or in welfare benefits. But he cannot pay more than the worker’s DMVP; i.e., the worker’s total wage income is set by this amount. The worker, in effect, chooses in what *form* he would like his pay and in what proportion of net wage rates to “welfare” benefits. Part of these benefits is money that the employer might spend to provide particularly pleasant or plush working conditions for all or some of his employees. This cost is part of the total and is deducted from the overt wage rates of the employee.

The institutional manner of paying wage rates is a matter of complete indifference to our analysis. Thus, while “piece rates” or “time rates” may be more convenient in any given industry, they do not differ in essentials; both are wage rates paid for a certain amount of work. With time rates, the employer has in mind a standard of performance which he expects from a worker, and he pays according to that rate.²¹

G. THE “PROBLEM” OF UNEMPLOYMENT

An economic bugbear of our times is “unemployment.” Not only is this considered the pre-eminent problem of the “depression” in the “business cycle”; it is also generally considered the primary “problem” of the “capitalist system,” i.e., of the developed free-market economy. “Well, at least socialism solves

²¹For a discussion of these problems, see Mises, *Human Action*, pp. 598–600.

the unemployment problem,” is supposed to be the most persuasive argument for socialism.

Of particular interest to us is the sudden emergence of the “unemployment problem” in economic theory. The Keynesians, in the mid-1930’s, inaugurated the fashion of declaiming: Neoclassical economics is all right for its special area, but it assumes “full employment.” Since “orthodox” economics “assumes full employment,” it holds true only so long as “full employment” prevails. If it does not, we enter a Keynesian wonderland where all economic truths are vitiated or reversed.

“Full employment” is supposed to be the condition of no unemployment and therefore the goal at which everyone aims.

In the first place, it should be emphasized that economic theory does not “assume” full employment. Economics, in fact, “assumes” *nothing*. The whole discussion of alleged “assumptions” reflects the bias of the epistemology of physics, where “assumptions” are made without originally knowing their validity and are eventually tested to see whether or not their consequences are correct. The economist does not “assume”; he *knows*. He *concludes* on the basis of logical deduction from self-evident axioms, i.e., axioms that are either logically or empirically incontrovertible.

Now what does economics *conclude* on the matter of unemployment or “full employment”? In the first place, there is no “problem” involved in the unemployment of either land or capital goods factors. (The latter condition is often known as “idle” or “unused capacity.”) We have seen above that a crucial distinction between land and labor is that labor is relatively scarce. As a result, there will always be land factors remaining unused, or “unemployed.”²² As a further result, *labor factors will always be fully employed on the free market to the extent that laborers are so willing*. There is no *problem* of “unemployed land,” since land

²²Capital goods will remain unemployed because of previous entrepreneurial error, i.e., investing in the wrong type of capital goods.

remains unused for a good reason. Indeed, if this were not so (and it is conceivable that some day it will not be), the situation would be most unpleasant. If there is ever a time when land is scarcer than labor, then land will be fully employed, and some labor factors will either get a zero wage or else a wage below minimum subsistence level. This is the old classical bugbear of population pressing the food supply down to below-subsistence levels, and certainly this is theoretically possible in the future.

This is the only case in which an “unemployment problem” might be said to apply in the free market. But even here, if we consider the problem carefully, we see that there is no unemployment problem *per se*. For if what a man wants is simply a “job,” he could work for zero wages, or even pay his “employer” to work for him. In other words, he could earn a “negative wage.” Now this could never happen, for the good reason that labor is a disutility, especially as compared to leisure or “play.” Yet all the worry about “full employment” makes it appear that the “job,” and not the income from the job, is the great desideratum. If that were really the case, then there *would* be negative wages, and there would be no unemployment problem either. The fact that no one will work for zero or negative wages implies that in addition to whatever enjoyment he receives, the laborer requires a monetary income from his work. So what the worker wants is not just “employment” (which he could always get in the last resort by *paying* for it) but *employment at a wage*.

But once this is recognized, the whole modern and Keynesian emphasis on employment has to be revalued. For the great missing link in their discussion of unemployment is precisely *the wage rate*. To talk of unemployment or employment without reference to a wage rate is as meaningless as talking of “supply” or “demand” without reference to a price. And it is precisely analogous. The demand for a commodity makes sense only with reference to a certain price. In a market for goods, it is obvious that whatever stock is offered as supply, it will be “cleared,” i.e., sold, at a price determined by the demand of the consumers. No

good need remain unsold if the seller wants to sell it; all he need do is lower the price sufficiently, in extreme cases even below zero if there is no demand for the good and he wants to get it off his hands. The situation is precisely the same here. Here we are dealing with labor services. Whatever supply of labor service is brought to market can be sold, but only if wages are set at whatever rate will clear the market.

We conclude that there can never be, on the free market, an unemployment problem. If a man wishes to be employed, he will be, provided the wage rate is adjusted according to his DMVP. But since no one wants to be simply “employed” without getting what he considers sufficient payment, we conclude that employment *per se* is not even a desired goal of human action, let alone a “problem.”

The problem, then, is not employment, but employment at an above-subsistence wage. There is no guarantee that this situation will always obtain on the free market. The case mentioned above—scarcity of land in relation to labor—can lead to a situation where a worker’s DMVP is below a subsistence wage for him. There also may be so little capital invested per worker that any wage will be below-subsistence for many people. Even in a relatively prosperous society there may be individual workers so infirm or lacking in skill that their particular talents could not command an above-subsistence wage. In that case, they could survive only through the gifts of those who are making above-subsistence wages.

But what of the able-bodied worker who “can’t find a job”? This situation cannot obtain. In those cases, of course, where a worker insists on a certain type of job or a certain minimum wage rate, he may well remain “unemployed.” But he does so only of his own volition and on his own responsibility. Thus, suppose that perhaps half the labor force suddenly insisted that they would not work unless they received a job in New York City in the television industry. Obviously, “unemployment” would suddenly become enormous. This is only a large-scale example

of something that is always going on. There may be a shift of industry away from one town or region and toward another. A worker may decide that he wants to remain in the old town and insists on looking for a job there. If he fails to get one, however, the fault lies with himself and not with the “capitalist system.” The same is true of a clerk who insists on working only in the TV industry, or of a radio employee who refuses to leave for television and insists on working only in radio. We are not condemning these workers here. We are simply saying that by their decisions they are themselves choosing not to be employed.

The able-bodied in a developed economy can always find work, and work that will pay an over-subsistence wage. This is so because labor is scarcer than land, and enough capital has been invested to raise the marginal value product of laborers sufficiently to pay such a wage. But while this is true in the general labor market, it is not necessarily true for particular labor markets, for particular regions or occupations, as we have just seen.

If a worker can withdraw from the labor market by insisting on a certain type of work or location of work, he can also withdraw by insisting on a certain minimum wage payment. Suppose a man insisted that he would not work at any job unless he is paid 500 gold ounces per year. If his best available DMVP is only 100 gold ounces per year, he will remain unemployed. Whenever a man insists on a wage higher than his DMVP, he will remain unemployed, i.e., *unemployed at the wage that he insists upon*. But then this unemployment is not a “problem,” but a voluntary choice on the part of the idle person.²³

The “full employment” provided by the free market is employment to the extent that workers wish to be employed. If they refuse to be employed except at places, in occupations, or

²³See Mises, *Human Action*, pp. 595–98. As Mises concludes, “Unemployment in the unhampered market is always voluntary.” Particularly recommended is Mises’ critique of the theory of “frictional unemployment.”

at wage rates they would like to receive, then they are likely to be choosing unemployment for substantial periods.²⁴

It might be objected that workers often do not *know* what job opportunities await them. This, however, applies to the owner of *any* goods up for sale. The very function of *marketing* is the acquisition and dissemination of *information* about the goods or services available for sale. Except to those writers who posit a fantastic world where everyone has “perfect knowledge” of all relevant data, the marketing function is a vital aspect of the production structure. The marketing function can be performed in the labor market, as well as in any other, through agencies or other means for the discovery of who or where the potential buyers and sellers of a particular service may be. In the labor market this has been done through “want ads” in the newspapers, employment agencies used by both employer and employee, etc.

Of course “full employment,” as an absolute ideal, is absurd in a world where leisure is a positive good. A man may choose idleness in order to obtain leisure; he benefits (or believes he benefits) more from this than from working at a job.²⁵ We can see this truth more clearly if we consider the hours of the work week. Will anyone maintain that an 80-hour work week is necessarily better than a 40-hour week? Yet the former clearly represents a fuller employment of labor than the latter.

One alleged example of a possible case of involuntary unemployment on the free market has been suggested by Professor Hayek.²⁶ Hayek maintains that when there is a shift from

²⁴Economics does not “assume mobility of labor.” It simply analyzes the consequences of a laborer’s decision to be “mobile” or “immobile,” the latter amounting to a voluntary choice of at least temporary unemployment.

²⁵The “idleness” referred to here is catallactic, and not necessarily total. In other words, it means that a man does not seek to sell his labor services for money and therefore does not enter the societal labor market. He might well be very “busy” working at hobbies, etc.

²⁶Hayek, *Prices and Production*, pp. 91–93.

investment to consumption, and therefore a shortening of the production structure on the market, there will be a necessary temporary unemployment of workmen thrown out of work in the higher stages, lasting until they can be reabsorbed in the shorter processes of the later stages. It is true that there is a loss in income, as well as a loss in capital, from a shift to shorter processes. It is also true that the shortening of the structure means that there is a transition period when, at final wage rates, there will be unemployment of the men displaced from the longer processes. However, during this transition period there is no reason why these workers cannot bid down wage rates until they are low enough to enable the employment of all the workers during the transition. This transition wage rate will be lower than the new equilibrium wage rate. But at no time is there a necessity for unemployment.

The ever-recurring doctrine of “technological unemployment”—man displaced by the machine—is hardly worthy of extended analysis. Its absurdity is evident when we look at the advanced economy and compare it with the primitive one. In the former there is an abundance of machines and processes completely unknown to the latter; yet in the former, standards of living are far higher *for far greater numbers of people*. How many workers have been “displaced” because of the invention of the shovel? The technological unemployment motif is encouraged by the use of the term “labor-saving devices” for capital goods, which to some minds conjure up visions of laborers being simply discarded. Labor needs to be “saved” because *it is the pre-eminently scarce good* and because man’s wants for exchangeable goods are far from satisfied. Furthermore, these wants would not be satisfied at all if the capital-goods structure were not maintained. The more labor is “saved,” the better, for then labor is using more and better capital goods to satisfy more of its wants in a shorter amount of time.

Of course, there will be “unemployment” if, as we have stated, workers insist on their own terms for work, and these terms cannot be met. This applies to technological changes as

well as any other. The clerk who, for some reason, insists nowadays on working *only* for a blacksmith or in an old-fashioned general store may well have chosen a large dose of idleness. Any workers who insisted on working in the buggy industry or nothing found themselves, no doubt, unemployed after the development of the automobile.

A technological improvement in an industry will tend to *increase* employment in that industry if the demand for the product is elastic downward, so that the greater supply of goods induces greater consumer spending. On the other hand, an innovation in an industry with *inelastic* demand downward will cause consumers to spend less on the more abundant products, contracting employment in that industry. In short, the process of technological innovation shifts workers from the inelastic-demand to the elastic-demand industries. One of the major sources of new employment demand is in the industry making the new machines.²⁷

3. Entrepreneurship and Income

A. COSTS TO THE FIRM

We have seen the basis on which the prices of the factors of production and the interest rate are determined. Looked at from the point of view of an individual entrepreneur, payments to factors are money *costs*. It is clear that we cannot simply rest on the old classical law that prices of products tend, in the long run, to be equal to their costs of production. Costs are not fixed by some Invisible Hand, but are determined precisely by the total force of entrepreneurial demand for factors of production. Basically, as Böhm-Bawerk and the Austrians pointed out, *costs conform to prices*, and not *vice versa*. Confusion may arise because, looked at from the point of view of the individual firm rather than of the economist, it *appears* as if costs (at least in the sense of the prices

²⁷Cf. Fred R. Fairchild and Thomas J. Shelly, *Understanding Our Free Economy* (New York: D. Van Nostrand, 1952), pp. 478–81.

control; they can pool their savings, or borrow the savings of others through the financial institutions, and invest these savings in their own firm. But even so, they would themselves then have to make current outlays for wages and other factor payments, and to wait until their product is completed and sold before they could recoup their expenditures and earn profits for themselves.

Since, in fact, workers do not generally rush to buy out existing firms or establish new ones themselves--in order to specialize as entrepreneurs themselves--we can conclude that they prefer the existing division of labor between themselves as "workers" and others as "firms." Whereas the firm must wait for its returns (profits), the worker gets his payoff now, without waiting. He prefers to take his money and run, as the saying goes. Thus, those who have relatively high time preference will tend to be attracted to the role of the "worker," whereas those with relatively low time preference will tend to be the savers and "capitalists" who invest their own wealth in production. That is, the latter look upon their investment in firms as the means of achieving a future consumption that is greater than if they had not saved and invested.

Costs Are "Prices"

Now, as for the general cost theory of price, it too is heir to all the objections levelled against the Marxist labor-theory of value. In addition, it is embarrassed by an economic truth: costs are themselves "prices." A wage-rate for labor is a price; so is rent a price; materials costs, too, resolve themselves into prices. And in every case these factor prices are determined by the same market forces of demand and supply that determine consumers' goods prices. Thus, it is circular reasoning to argue that factor costs explain market price when these costs are themselves determined by the very same market forces they are supposed to explain in the first place!

Market Determines Wage-Rates

The dependence of factor prices and costs on market demand and supply can be exemplified by the wage-rate--the price paid for labor. In Figure 31 we see how the hourly wage-rate would be determined by market D and S.

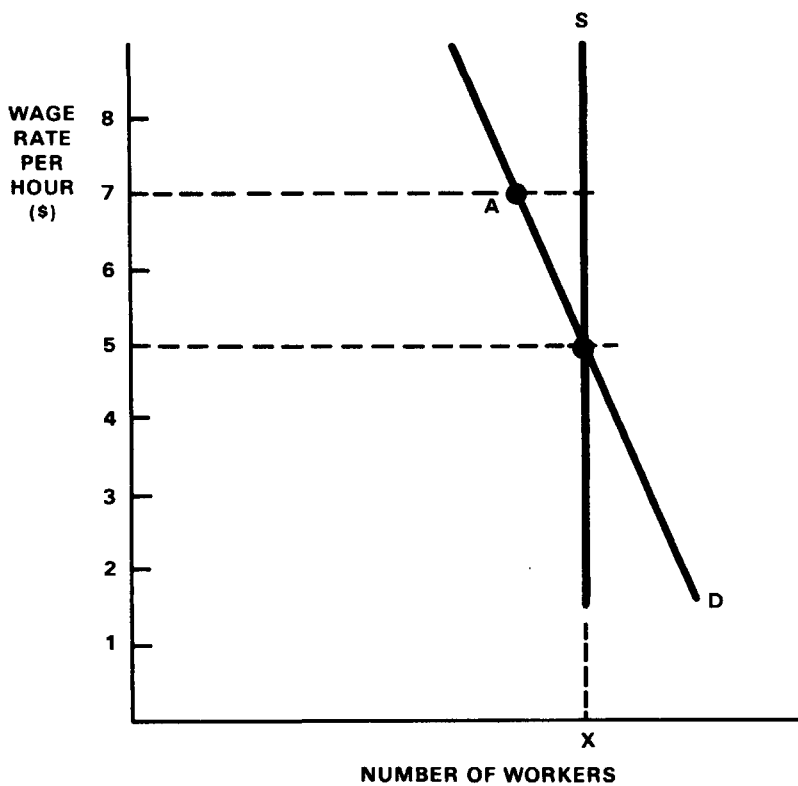


FIGURE 31:
MARKET DETERMINATION OF WAGE-RATE.

To simplify the exposition, let us assume a 40-hour work week. The demand schedule relates to the firms; it reflects their demand for workers--the number of jobs they would offer at various wage-rates. It possesses the characteristic slope downward from left to right, which means that, other things being equal, more workers would be employed only at lower wage-rates, and fewer workers would be employed at higher rates of pay.

On the other hand, the supply schedule relates to the workers: its verticality indicates that, at the given moment, there is a fixed number of workers who are seeking to work a 40-hour work week. But each worker has his own minimum "reservation price"--the minimum wage-rate below which he will not accept work. Thus, the hourly wage-rates acceptable to workers run from as low as \$1.50 on up.

Cause of "Unemployment"

How does the market determine the wage-rate in a given field? Figure 31 says that any worker seeking a job can find one if he limits his wage demand to \$5 an hour or less. The \$5 rate would exactly clear the market: at this wage, the number of workers seeking jobs (X) is just equal to the number of jobs being offered (X). But at any higher wage-rate, say \$7, workers would be inviting some unemployment: while the number of workers seeking jobs remains X, the number of workers being sought by firms has dropped to A, causing unemployment for AX workers. Clearly, at \$7 the workers would be overpricing themselves, and as we saw in Chapter VIII, overpricing leads to unsold surplus which, in the case of workers, means "unemployment." Unemployment is the market's way of penalizing the overpricing of labor--the way it limits wage demands made by workers.

At first glance, it is the demander--the individual firm--which decides the highest wage-rate it is willing to pay, a limit it establishes as a result of "working back" from the expected selling price of its product. All firms together, therefore, comprise the market demand for labor. But, since firms are merely intermediaries between consumers and resource-owners, they come to realize sooner or later that it is the consumer who ultimately determines the limit to the wage-rate payable to workers.

Factor Costs Are Opportunity Costs

The cost-theory of price is mired in circular reasoning for another reason. The "costs" of producing a given good X are essentially opportunity costs: they reflect foregone opportunities, i.e., the other things that the given resources could produce if they were not used in producing X. Where technology permits, resources are generally useful in the production of a variety of goods. Labor, indeed, is the most non-specific resource of all, since it can be applied in producing an infinite variety of goods and services. In lesser degrees, the same is true for land, materials, and many types of equipment. They are all more or less capable of serving diverse production purposes. For this reason, their utilization in producing any given good necessarily involves an opportunity cost. Indeed, the "opportunity cost" concept is made relevant precisely because of the diverse or non-specific uses to which resources can be applied.

Furthermore, the opportunity cost itself is measurable in terms of the earnings which the firm--or the resource-owners themselves--could have earned from using their resources in alternative uses. The market enables us to place a market value ("price") on the alternative goods and services that could have been rendered with the given resources. Hence, for the firm, the "costs" of producing X merely reflect the potential profits from foregone opportunities to produce and sell other things. For the resource-owner, the "cost" of offering his resource to the producer of X reflects the earnings he could have received in some alternative production program.

To be more precise, the firm will employ resources for producing X only when it expects to earn more this way than using the resources to produce Y, Z, etc. Similarly, the resource-owner will offer his goods or services to the firm producing X only when he can receive more from this firm than he can receive from producers of Y, Z, etc. Thus, a producer of motorcycles will stick to producing them rather than motorized bicycles so long as--other things being equal--earnings from the former exceed potential earnings from the latter. Similarly, a design engineer will stick to his job at General Motors rather than switch to Ford so long as--other things being equal--his salary at GM exceeds the salary offered by Ford.

What Determines Opportunity Costs?

Although the concept of "opportunity cost" is valid as far as it goes, it nevertheless prompts us to ask: Doesn't this concept itself beg the question? Indeed, there are several additional questions that beg for answers.

First, what determines the value of the given resources in their alternative, foregone uses? For example, if the value of resources used in making motor-cycles is related to their value in making motorized bikes, it is proper to ask: What, then, determines their value in making motor bikes? This raises a second question: Why is the producer of X induced to use the given resources in making X rather than in making Y, Z, etc. Also, a third question: What induces General Motors to pay its design engineer a higher salary than he can get at Ford?

To the first question, the answer could very well be as follows: The present discounted value of resources used in making motor bikes is, as we have seen above, determined by the market price that demanders are willing to pay. Essentially the same answer pertains to the second question: The market demand and price for product X are presumably more attractive than in the case of product Y, Z, etc. An additional answer could be this: The firm is more efficient--is able to achieve lower unit costs--in making X than in making other products. This increased efficiency enables it to earn a higher profit margin. Both of these answers are also relevant to the third question: Either the greater demand and price for GM automobiles enables GM to pay its design engineer a higher salary than can Ford, or GM's greater efficiency and profit margin enable it to do so.

Conclusion

What could have been a relatively narrow discussion of profits has turned into an economic Odyssey through the world of time and time-preference, pure interest, risk, and inflation--to say nothing of imputation processes, capital values, opportunity costs and the labor theory of value. From the simple concept of "production takes time" we went a long way to show that present values mirror future values. But this is

in the nature of things. It is the "tail" of the future that wags the "dog" of today; tomorrow's expected benefits induce or warrant the incurring of today's costs. The "future" and "today," it turns out, are linked inextricably in terms of benefit and cost.

6

Production in an Evenly Rotating Economy

We must now explain how scarce resources are allocated in the production of various consumer goods in the market economy. The generation of consumer goods, as will be shown, is a complex process in which the production of numerous goods used to make other goods, often called capital goods, plays an essential role. Production requires the creation of capital goods to be used in further production as well as the final goods designed to please the consumer. One can readily observe that in our economy the decisively preponderant form of economic activity is the production of intermediate or capital goods as opposed to final consumption goods. Nature does not bestow an abundance of goods on man in immediately consumable forms. With the exception of the air (and this exception is not everywhere applicable), there is hardly any good that nature supplies that cannot be made far more useful through the application of some productive effort. The question is not whether there should be production, but to what ends should production be directed so that the most desirable goods and services are produced.

Resource Pricing in an Evenly Rotating Economy (ERE)

In order for the owners of productive factors to be willing to contribute resources to the productive process of the market, there must be some means by which they can share in the out-

put arising from production. Their participation is achieved through the price system. Particular units of productive factors are exchanged for specific quantities of money through supply-and-demand forces in the same way that consumer goods are bought and sold. However, there is one crucial difference between the pricing of consumer goods and productive factors: Consumer goods are evaluated directly by consumers as ends or ultimate sources of satisfaction, but consumers do not evaluate the resources used to generate the final goods. It should be clear that effective allocation of scarce resources requires a system in which specific employments are considered in terms of the relative importance of alternative results. If certain ends or consumer goods are more important than others, then resources versatile enough to serve a variety of ends should be directed to the creation of the most important ones. An explanation of the pricing of units of resources will show how this goal is accomplished.

The concept of an imaginary economy devoid of change in technology, resources, and tastes, an economy in which the same steps of production and consumption are repeated over and over, is useful in understanding the nature of the pricing of resource units in the real world of continuous change. Rothbard has called such an economy an evenly rotating economy, or ERE. In the ERE, each producer, given his predicament of owning some resources and bidding for units of particular resources, would be able to impute to a given resource unit the money value of its contribution to the final product because he would know in advance the monetary result of particular production decisions. He would not encounter the uncertainty arising from changing economic conditions. Past results would exactly predict future results.

The unit price of each type of resource would equal the discounted value of its marginal contribution to product value. (The discount relates to a margin reflecting time preference or interest, a matter to be discussed below.) This price would apply to the resource in all of its various lines of employment to the extent that the resource owners were indifferent to the non-monetary factors relating to the different lines. The resource

could not earn more in one line than in another because resource owners would have shifted their factor to the more remunerative lines. This shift would have driven the factor price down in the attractive employments and caused the price to rise in those abandoned lines. Prices of homogeneous factors would become equal in all employments.

This uniform price would be equated to the resource's marginal value product, which would thus be the same in all lines of employment. Producers would not tolerate any discrepancy between a factor's price and its contribution to product value. If a resource had been receiving a price lower than its marginal value product, producers would have increased the use of the resource in these outputs so that its unit price would be bid upward but not in excess of its contribution to productive value. Conversely, if a resource unit had been paid a price higher than its marginal value product, employment of the resource would have fallen off in those lines at least until the price ceased to exceed the factor's contribution to product revenues. The price of a durable factor would be derived from and equal to the summation of the marginal value products of its specific service units to be used over time. Durable resources, then, could be purchased or rented in the ERE according to the value imputed to the service units to be derived.

Thus in the evenly rotating economy the price of each product would (except for the interest factor) equal the summation of the marginal value products of its complementary factors of production. For each producer, total money revenues (excluding interest) would equal total money costs. Adjustments leading up to the ERE would have eliminated all instances of profit and loss. The continuous stability and certainty of an evenly rotating economy would preclude the need for further adjustments or changes in resource allocation. Each factor would be allocated to various uses so that its marginal product contribution would be the same in each use. With perfect knowledge about the future, producers would make no mistakes about imputing product values to resource values. What is of extreme importance here is that the influence is from product price back to fac-

tor price, and not the other way around. Means derive their importance from the ends or results they effect. Here lies the key to effective resource utilization. Yet, the erroneous notion that factor costs determine product prices has widespread acceptance.

Only those factor units whose marginal effect on product value could be isolatable and hence determinable would be subject to the competitive forces that would set resource prices equal to discounted marginal value product. This means that determinate pricing would require the existence of versatile, relatively nonspecific factors whose multiple uses set the competitive process in motion as producers bid for the factors' employment in various lines of production. A price emerges on the market for a particular resource because producers compete for its employment in alternative uses. If products were produced by strictly specific resources, then the market could establish only cumulative prices for each combinational group of resource factors, and each price would represent the monetary value of the common product. Prices are determinate for absolutely specific resources in those situations in which the production process uses no more than one specific resource. As a result of the bidding of competitive producers, such prices of specific resources equal the residual difference between the final product price and the sum of the prices of the nonspecific factors.

Cumulative residual prices will prevail on the market in connection with those processes in which more than one specific resource is required. In such cases, the amount singly paid to each specific factor is established only through the process of bargaining among the separate owners of the specific factors. Prices of particular factors emerge only when producers compete for their use in alternative lines of production or when there is only one specific resource in each productive process, thereby imputing marginal value to the particular factor's units.

It is important to realize that the imputation of value to factors of production on the part of producers is done only on an incremental or marginal basis. In hiring or purchasing productive services, the producer always makes his decision in terms of the added advantage of the additional factor. This does not

mean that he deals with infinitesimal increments. For example, his marginal unit may be fifty additional employees or four new machines, but he thinks in terms of his particular situation and bids for services in light of their expected marginal contribution. Rothbard has effectively dealt with this point:

It is, then, clearly impossible to impute absolute “productivity” to any productive factor or class of factors. In the absolute sense, it is meaningless to try to impute productivity to any factor, since all the factors are necessary to the product. We can discuss productivity only in marginal terms, in terms of the productive contribution of a single unit of a factor, *given the existence of the other factors*. This is precisely what entrepreneurs do on the market, adding and subtracting units of factors in an attempt to achieve the most profitable course of action.¹

Just as the farmer’s five sacks of grain were allocated to the most urgent uses first, so are the units of a productive factor. As additional units of any factor are employed in a given process or throughout the economy, the marginal value product declines. The decline in the marginal value product is enhanced as a result of the law of diminishing returns, which holds that in the employment of any variable factor to a fixed factor, marginal physical productivity begins to fall at a certain point. This means that, given the supply of a particular factor, the price per unit of that factor will be set equal to the marginal value product related to the last unit of supply. As each of the farmer’s sacks of grain carried the same value equal to the value of the marginal use—feeding pet parrots—each unit of a particular factor is priced in the ERE equal to the marginal value product, which is the money value that would be sacrificed if one unit of the factor were lost.

This process of resource pricing would apply to factor service units, whether purchased on a limited scale through renting or

1. Rothbard, *Man, Economy, and State*. II, p. 520.

on a greater scale through the purchase of whole factors. In the ERE, all factor service units would receive their marginal value product, and there would exist no reason for their being shifted to other lines of employment once this condition was reached. Each particular factor would have one unit price throughout the market. In each specific use the resource would be employed to the extent that its marginal value product was equal to its price, competitively established throughout its market. The demand curve for each factor in each particular use depicts its declining marginal value product; like the demand curve for consumers' goods, it would be downward-sloping to the right.

The supply curve for each productive resource in each line of use would be upward-sloping to the right, reflecting the fact that resource units, possessing a versatility of productiveness in alternative uses, would be shifted away from the given use to other uses at lower prices and would be attracted to the given use from alternative lines of employment at higher prices. The curve would probably be flatter for factors of labor than for land and capital goods factors because of the relatively greater degree of nonspecificity and flexibility in the nature of the labor resources.

Resource Supply, Entrepreneurial Activity, and Subjective Valuation

The theory of subjective value must not be overlooked in the discussion of factor supply curves. The owners of the units of factor service will subjectively determine the various quantities of service units that they are willing to offer to producers for each possible price per service unit in each particular use of the factor. They will weigh subjectively the monetary and nonmonetary results of committing the various possible quantities of service units to production. For example, the laborer will consider the value of leisure as well as other nonmonetary factors like working conditions in reaching his decision about employment. Those lines of work associated with significantly favorable nonmonetary characteristics would attract a greater number of workers than those characterized by noticeably unfavorable

working conditions. Higher wage rates or prices than otherwise necessary would be paid those working in the generally disliked jobs; conversely, lower wages than otherwise required would be paid to those employed in the generally favored jobs.

These results are consistent with the principle of declining marginal value product for each particular use. Greater quantities of factors employed would tap decreasing marginal value products; lesser quantities would relate to higher marginal value products. Market supply curves for each factor in each particular use would show the summation of individual supply curves. The intersection of the market demand-and-supply curves would show the establishment of the equilibrium price for each factor in each particular line of employment, and this price would represent the marginal value product of a factor unit in that particular use. Such would be the endlessly prevailing price structure for units of productive resources in the evenly rotating economy.

In hiring or purchasing factors of production, the producer, like all other market participants, is acting on his own subjective value judgments.² His willingness to invest specific amounts of money or commit himself to the investment of amounts of money obtained from others, who likewise act on personal valuations, reflects his decision that taking other actions instead would contribute less satisfaction to him than pursuing his business plan. His subjective evaluation of expected “money costs” and other forms of sacrifice, i.e., forgone alternative satisfaction, or in Buchanan’s terms, his “choice-influencing” costs, is lower than the subjective value expected to be realized from the action chosen.

The Efficiency of Resource Allocation in an ERE

In an advanced economy the time between the inception of virtually every consumer good and its fruition is exceedingly

2. Under the assumption of perfect knowledge posited with the ERE, there would be no place for the entrepreneur. This explains the absence here of the term used repeatedly in earlier sections, the “entrepreneur-producer.” Nevertheless, the same point being made above concerning the relevance of subjective value is no less applicable to the entrepreneur-producer in the real world of uncertainty.

long. In order to obtain goods that they desire and can consume, people are able to resort ultimately to only two types of productive resources, themselves and nature. Because either the goods that come from nature are not completely accessible to humans, or the resources of nature are not always usable in their natural state, humans inject their own efforts into the natural process. This productive effort transforms and combines the gifts of nature into more satisfactory goods. All such production must take place through time; thus, the fundamental and ultimate requirements for production are nature, man, and time.

Humans can combine their own efforts with the gifts of nature to produce consumable goods either directly or indirectly. Using the direct approach, a person applies his energies to a natural resource for immediate satisfaction, as in obtaining a drink of water from a stream. It was owing to the great contribution of Böhm-Bawerk that economic analysis recognized that production cannot occur without the passing of time, a recognition that was especially pertinent in connection with the indirect approach to production.³ Under this second method, production first yields intermediate goods that are not consumable but rather are used to assist in further production efforts. These intermediate goods, known as producers' goods or capital goods, include tools, equipment, buildings, and all other produced means of production. An example of this indirect method, which Böhm-Bawerk called "roundabout production," is obtaining water to drink from the stream with a log hollowed out to make a bucket. The bucket could be used to make the acquisition of water easier by reducing the number of trips to the stream.

The advantage of roundabout or indirect production is not confined to making it easier to acquire goods that already exist in consumable form, such as water. A far greater advantage is its capacity to produce consumer goods that otherwise could never be made available. All modern conveniences such as cars, communications devices, refrigerators, eyeglasses, and countless

3. Böhm-Bawerk, *Capital and Interest*.

others would be nonexistent were their production not preceded by the creation of tools and equipment. In an advanced economy, units of these capital goods are a significant part of the factors being purchased for production purposes. In the ERE, each particular type would be priced per service unit at an amount equal to its discounted marginal value product. The price of the whole capital good would equal the capitalization of its future marginal value products.

Time Preference and Interest

Because of the time-consuming element of production, the price paid each factor unit in the ERE is its discounted marginal value product and not its full marginal value product. The principle of time-preference, which holds that people prefer present goods to future goods, underlies the requirement that future marginal value products be discounted to their present values. People who save some of their purchasing power and invest in productive undertakings thereby forgo the enjoyment of consumption goods that purchasing power could have obtained. They exchange present goods for future goods. When they purchase units of productive factors in the expectation of generating future purchasing power, i.e., future goods, they provide the former owners of these resources with a means to acquire present goods. However, since they prefer present goods over future goods, future goods are valued less in the present than are present goods, and it is this lesser value that is presently imputed to the marginal value product of each productive factor. This is why in an ERE producers would earn an interest income, the difference between the money value of consumer goods and the money value of productive resources purchased at earlier points in time.

In an advanced economy in which extensive use of roundabout production processes is prominent, the interest factor is of utmost importance. Here rests the kernel of Böhm-Bawerk's devastating reply to Marx's exploitation theory, which maintained that capitalist-producers exploited the working class by

paying them less than the value of their products. Marx was right in citing the emergence of a surplus value, but he was wrong in overlooking that rather than being a matter of exploitation, this discrepancy was partly the result of a natural and unavoidable phenomenon: interest.

In an ERE, the interest rate would be the same throughout the economy and in every productive stage because if interest rates were higher in certain industries or stages than in others, producers would shift to the more remunerative lines so that the differences would disappear as the result of competitive forces. In those industries or stages that producers abandon, the demand for productive resources falls, thereby reducing the prices of units of factors. This raises the discrepancy between marginal value product and money costs; hence the interest rate in those lines is increased. On the other hand, in those industries that attract additional investment, interest rates fall as a result of higher resource prices and the lower selling prices of finished goods.

This process of shifting investment would go on until the interest rate in every line of production became the same, at which point an evenly rotating economy would be reached. The higher the rate of interest, the more production efforts will be directed toward the production of consumer goods and the less saving available for more time-consuming production of future goods. A lower rate of interest indicates a lower discounting of future goods to present goods and is concomitant with greater savings and the opportunity to adopt more time-consuming processes of production.

Even Böhm-Bawerk, who played such a vital role in developing interest theory, committed the common error of attributing the interest factor to the productivity of capital goods. But interest can be explained completely by the principle of time-preference and does not arise only in connection with the employment of capital goods. The productivity of capital goods is already taken into consideration in determining which marginal value products should be discounted for the time period expected to elapse before the future goods become present goods. And this applies to all factors of production, not just capital goods. Mises says:

The contribution of the complementary factors of production to the result of the process is the reason for their being considered as valuable; it explains the prices paid for them and is fully taken into account in the determination of these prices. No residuum is left that is not accounted for and could explain interest.⁴

Interest is not a return peculiarly characteristic of the use of capital goods, as has often been contended. The classical association of interest only with capital goods is not tenable because interest permeates all economic activity in which present goods are furnished in exchange for future goods. Thus interest arises in consumer loans as well as producer loans. The phenomenon of interest operates as well in the price paid for land and labor whose benefits or proceeds are to be received in the future. In fact, if it were not for the element of time-preference, the prices of parcels of land would be infinite.

Suggested Readings

Mises, Ludwig von. *Human Action: A Treatise on Economics*, pp. 244-56 and pp. 479-537.

Rothbard, Murray N. *Man, Economy, and State: A Treatise on Economic Principles*, pp. 273-433.

4. Mises, *Human Action*, p. 530.

The Myth of Neutral Taxation

A neutral mode of taxation is conceivable that would not divert the operation of the market from the lines in which it would develop in the absence of any taxation.

Ludwig von Mises, *Human Action* (1949)

Economists have long believed that government's tax and expenditure policy either is, or can readily be made to be, neutral to the market. Free-market economists have advocated such neutrality of government, and even economists favoring redistributive actions by government have believed that the service activities and the redistributive activities of government can easily be distinguished, at least in concept. The purpose of this paper is to examine the nature and implications of fiscally neutral government; the paper argues that all government activities necessarily divert incomes, resources, and assets from the market, and therefore that the quest for a neutral tax or expenditure policy is an impossible one and the concept a myth.

STRUCTURE OF THE FREE MARKET: CONSUMERS AND INCOMES

To evaluate the idea of a neutral government, we must first define what neutrality to the market may be. Any firm or institution is neutral to the market when it functions as *part* of the market. That is, both General Motors and Mom and Pop's Candy Store are part of the market, and insofar as their activities remain within the market, they are neutral to it.¹

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¹Thus lobbying or other government-related activities by any business firm would not be neutral to the market.

We may analyze market institutions according to the following categories: (a) what and how much they produce, and (b) how much and from where the institution receives monetary funds. For every institution produces goods or services and receives money.

There are two types of market institutions. One is the business firm. The firm is guided by its expectations of monetary income from customers in payment for its products. The firm receives funds from two sources: (b_1) customer expenditures, and (b_2) entrepreneurial investments. Entrepreneurial investments are monies invested in the firm to purchase or hire factors of production to make goods and services to be sold to customers. The investments are savings spent in anticipation of greater returns from selling products to customers. Although the conspicuous resource and production decisions in the market are made by capitalist-entrepreneurs—by the owners of the firm and its capital assets—these decisions are made in accordance with their expectations of monetary income from customers. In short, businessmen are guided by the quest for monetary profits and the wish to avoid monetary losses, and their forecasting and anticipations must turn out to be good enough to reap profits from their production decisions. The intake of investment funds into the firm, then, is subordinate to the expected profit to be made from sales to customers.

Business firms and the structure of capital assets in the economy, as Austrian School economists have shown, are *not* a homogeneous lump: Production is a structure of stages, a latticework that moves from the most “roundabout” processes of production—the stages of production most remote from the consumers—down to nearer processes, and finally down to the production and sale of goods and services to the ultimate consumers.² The ham sandwich at the local coffee shop begins with the mining of ore for tools and machines and the growing of grain to feed hogs, and continues in stage after stage down through the wholesale and retail stages, until it arrives in the maw of the final buyer, the consumer. Thus, for our purposes, we can short-circuit the structure and refer to the *consumer* as the basic source of the income of business firms; ultimately, it is consumer

²On the structure of production and capital, see among other works, Eugen von Böhm-Bawerk, *Capital and Interest*, 3 vols. (South Holland, Ill.: Libertarian Press, 1959), and Ludwig M. Lachmann, *Capital and Its Structure* (Kansas City: Sheed Andrews and McMeel, 1978).

demand that provides profits or losses to business firms and either vindicates or not prior production decisions by investors.

Investments that bring money into the firm in anticipation of consumer demand, (b_2), consist of two parts. The basic investment (b_{2a}) is investment by the owner or owners of the firm in the form of personal savings, partnerships, or investment in corporate stock. Auxiliary investment (b_{2b}), are loans to the owners of the firm by other capitalists, either in the form of short-term credit or long-term debentures. The willingness of the firm's owners to pay a fixed-interest return to lenders is, of course, a function of their anticipated profit in selling the product to the consumers. Willingness to pay interest will always be less than or equal to the anticipated profit rate; and in the long-run general-equilibrium world of changeless certainty—a world that has never and can never come into existence—the rate of return would be equal throughout the market economy. In that world, the rate of profit in every firm would be equal to the rate of interest on loans.³

For market firms, therefore, there is no mystery about the determination of their production decisions and income. The former are determined by firms' anticipation of consumer demand, and the latter by the reality of that demand. Hence, firms receive their income, in the final analysis, from serving consumers. The more efficiently and ably the firms anticipate and serve consumer demand, the greater their profits; the less ably, the less their profits and the more they suffer losses.

Finally, the owners of the factors of production—land, labor, and capital goods—receive their income *in advance of production* from the investor-owners of the firm. The more ably and productively a factor or factors are believed to serve consumer demand, the greater the

³Both would be determined by the social rate of time preference as determined on the market, the premium of present as compared with future goods—an agio which would be the resultant of all the time-preference schedules by individuals on the market, in much the same way as consumer demand is the embodiment of the marginal-utility schedules of individuals. See Murray N. Rothbard, *Man, Economy, and State*, 2nd ed. (Los Angeles: Nash, 1970), vol. 1, chap. 6; Frank A. Fetter, *Capital, Interest, and Rent: Essays in the Theory of Distribution* (Kansas City: Sheed Andrews and McMeel, 1977), pt. 2.

demand for those factors by the owners, and the higher their income. Since capital goods themselves form part of the structure of production, ultimately factor incomes consist of the income from the exertion of labor energy (wages, salaries), the use of land (land rents), and the transfer of money (a present good) in exchange for anticipated future income (a future good)—that will yield interest (or long-run profit) for time preference, and entrepreneurial profits or losses. All these factor incomes then, are tied to the efficient service of anticipated consumer demand.⁴

Incomes to factors and entrepreneurs on the market, therefore, are tied inextricably to the effective satisfaction of consumer demand, a satisfaction that depends on the successful forecasting of the market conditions that will exist when and after the goods or services are produced. Income to the firm and to factors from consumers is linked inextricably to the satisfaction the consumers derive. In a deep sense, therefore, income to producers on the market reflects benefits to consumers.

The crucial point is that when consumers spend, they benefit, because the expenditures are voluntary. The consumers buy product X because they decide that, for whatever reason, it would benefit them to buy that product rather than use the money on some other product or save or add to their cash balances. They give up money for product X because they expect to prefer that product to whatever they could have done with the money elsewhere; their preference reflects a judgment of relative benefit from that, as compared to another, purchase. In my own terms, spending choices by consumers demonstrate their preference for one, as compared to another, way of using their money.⁵

⁴That is, each unit of each factor will tend to receive its discounted marginal revenue product, its marginal value productivity discounted by the rate of interest. So each unit of land and labor will tend to receive its DMRP, and the capitalist (or lender) will receive the discount (in the form of interest or long-run profit). Only in the never-never land of general equilibrium would each factor always receive its DMRP; in the real world, the positive or negative differences would reflect entrepreneurial profits and losses. See Rothbard, *Man, Economy, and State*, chap. 7.

⁵On the concept and implications of “demonstrated preference,” see Murray N. Rothbard, *Toward a Reconstruction of Utility and Welfare Economics*

And that is not all. The profit-and-loss tests of the market, the rewarding of effective producers and forecasters and the punishing of ineffective ones, ensures that the overall ability at any time of entrepreneurs to forecast and satisfy consumer demands will be high. Good forecasters will be rewarded with higher profits and incomes; poor forecasters will suffer losses and finally leave the business. So that the market *tendency* is toward a high level of fit between anticipation and reality, and for a minimum of erroneous investment. Producer income, therefore, reflects consumer benefit even more closely than we might at first realize.⁶

The second type of market institution—after the business firm—is the voluntary nonprofit membership organization: the bridge club, lodge, ideological organization, or charitable agency. Here, too, income and benefit are cognate. Income is no longer divided between investors and consumers. All income is obtained from members, either in the form of regular dues or systematic or occasional donations. The purpose of the organization is not to earn a monetary profit, but to pursue various purposes desired by the income-paying members. In a sense, then, the members are the “consumers,” except that they consume the services of the organization not by purchasing a product but by helping the organization pursue its goals. The member-donors are at the same time the consumers and the investors, the consumers and the makers of the production decisions.⁷ The organization will employ as much of its resources as the member-consumer-donors desire to contribute to the pursuit of their goals.

(New York: Center for Libertarian Studies, 1977), esp. pp. 2–7, 26–30; included in this volume as chapter 17.

⁶This, however, is a long way from saying, with conventional neoclassical economists, that general equilibrium and perfect knowledge are facts of reality, or, with the rational-expectations economists, that the market always perfectly forecasts the future. If this were true, there would be no room for entrepreneurship at all, and the most dynamic and vital aspect of the market economy would go unremarked and unexplained. See Gerald P. O'Driscoll, Jr., “Rational Expectations, Politics, and Stagflation,” in *Time, Uncertainty, and Disequilibrium: Exploration of Austrian Themes*, Mario J. Rizzo, ed. (Lexington, Mass.: Lexington Books, 1979), pp. 153–76.

⁷For convenience, “members” and “donors” shall be used interchangeably throughout, although in many cases donors are technically not “members” of the organization.

Every individual on the market has a similar type of time-market schedule, reflecting his particular value scale. The schedule of each will be such that at higher rates of interest there will be a greater tendency toward net saving, and at lower rates of interest, less saving, until the individual becomes a net demander. At each *hypothetical* rate of interest there is a possible net saving, net demanding, or abstaining from the market, for each individual. For some changes in the rate of interest, there will be no change (vertical curve), but there will never be a situation where the supply will be greater, or demand less, with lower rates of interest.

The time-market schedules of all individuals are aggregated on the market to form market-supply and market-demand schedules for present goods in terms of future goods. The supply schedule will increase with an increase in the rate of interest, and the demand schedule will fall with the higher rates of interest.

A typical aggregate market diagram may be seen in Figure 44. Aggregating the supply and demand schedules on the time

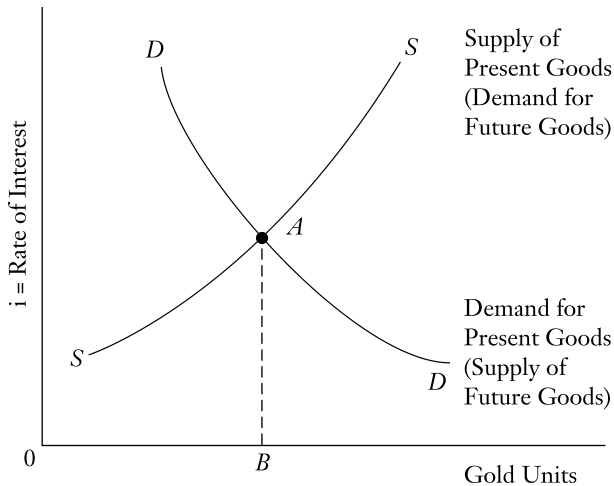


FIGURE 44. AGGREGATE TIME-MARKET CURVES

market for all individuals in the market, we obtain curves such as *SS* and *DD*. *DD* is the demand curve for present goods in terms of the supply of future goods; it slopes rightward as the rate of interest falls. *SS* is the supply curve of present goods in terms of the demand for future goods; it slopes rightward as the rate of interest increases. The intersection of the two curves determines the *equilibrium rate of interest*—the rate of interest as it would tend to be in the evenly rotating economy. This pure rate of interest, then, is determined *solely by the time preferences of the individuals in the society, and by no other factor*.

The intersection of the two curves determines an equilibrium rate of interest, *BA*, and an equilibrium amount saved, *OB*. *OB* is the total amount of money that will be saved and invested in future money. At a higher interest rate than *BA*, present goods supplied would exceed future goods supplied in exchange, and the excess savings would compete with one another until the price of present goods in terms of future goods would decline toward equilibrium. If the rate of interest were below *BA*, the demand for present goods by suppliers of future goods would exceed the supply of savings, and the competition of this demand would push interest rates up toward equilibrium.

Perhaps more fallacies have been committed in discussions concerning the interest rate than in the treatment of any other aspect of economics. It took a long while for the crucial importance of time preference in the determination of the pure rate of interest to be realized in economics; it took even longer for economists to realize that time preference is the *only* determining factor. Reluctance to accept a monistic causal interpretation has plagued economics to this day.¹²

¹²The importance of time preference was first seen by Böhm-Bawerk in his *Capital and Interest*. The *sole* importance of time preference has been grasped by extremely few economists, notably by Frank A. Fetter and Ludwig von Mises. See Fetter, *Economic Principles*, pp. 235–316; *idem*, “Interest Theories, Old and New,” *American Economic Review*, March, 1914, pp. 68–92; and Mises, *Human Action*, pp. 476–534.

4. *The Time Market and the Production Structure*

The time market, like other markets, consists of component individuals whose schedules are aggregated to form the market supply and demand schedules. The intricacy of the time market (and of the money market as well) consists in the fact that it is also divided and subdivided into various distinguishable sub-markets. These are aggregable into a total market, but the subsidiary components are interesting and highly significant in their own right and deserve further analysis. They themselves, of course, are composed of individual supply and demand schedules.

As we have indicated above, we may divide the present-future market into two main subdivisions: *the production structure* and the *consumer loan market*. Let us turn first to the production structure. This may be done most clearly by considering once again a typical production-structure diagram. This diagram is the one in Figure 41, with one critical difference. Previously the diagram represented a typical production structure for any particular consumers' good. *Now the same diagram represents the aggregate production structure for all goods.* Money moves from consumers' goods back through the various stages of production, while goods flow from the higher through the lower stages of production, finally to be sold as consumers' goods. The pattern of production is not changed by the fact that both specific and nonspecific factors exist. Since the production structure is aggregated, the degree of specificity for a *particular product* is irrelevant in a discussion of the time market.

There is no problem in the fact that different production processes for different goods take unequal lengths of time. This is not a difficulty because the flow from one stage to another can be aggregated for any number of processes.

There are, however, two more serious problems that seem to be involved in aggregating the production structure for the entire economy. One is the fact that in various processes there will not necessarily be an exchange of capital goods for money at

each stage. One firm may “vertically integrate” within itself one or more stages and thereby advance present goods for a greater period of time. We shall see below, however, that this presents no difficulty at all, just as it presented no difficulty in the case of particular processes.

A second difficulty is the purchase and use of *durable* capital goods. We have been assuming, and are continuing to assume, that no capital goods or land are *bought*—that they are only *hired*, i.e., “rented” from their owners. The purchase of durable goods presents complications, but again, as we shall see, this will lead to no essential change whatever in our analysis.

The production-structure diagram in Figure 45 omits the numbers that indicated the size of payments between the various sectors and substitutes instead *D*’s and *S*’s to indicate the points where present-future transactions (“time transactions”) take place and what groups are engaging in these various

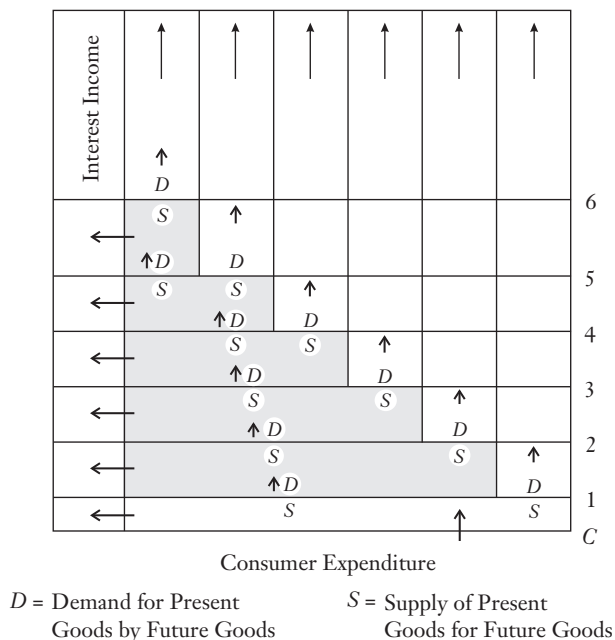


FIGURE 45. AGGREGATE PRODUCTION
STRUCTURE FOR ALL GOODS

transactions. *D*'s indicate demanders of present goods, and *S*'s are suppliers of present goods, for future goods.

Let us begin at the bottom—the expenditure of consumers on consumers' goods. The movement of money is indicated by arrows, and money moves from consumers to the sellers of consumers' goods. This is *not* a time transaction, because it is an exchange of *present goods* (money) for *present goods* (consumers' goods).¹³

These producers of consumers' goods are necessarily capitalists who have invested in the services of factors to produce these goods and who then sell their products. Their investment in factors consisted of purchases of the services of land factors and labor factors (the original factors) and first-order capital goods (the produced factors). In both these two large categories of transactions (exchanges that are made a stage earlier than the final sale of consumers' goods), present goods are exchanging for future goods. In both cases, the capitalists are supplying *present money* in exchange for factor services whose yield will materialize in the future, and which therefore are *future goods*.

So the capitalists who are producing consumers' goods, whom we might call "first-stage capitalists," engage in time transactions in making their investments. The components of this particular subdivision of the time market, then, are:

Supply of Present Goods: Capitalists₁

Supply of Future Goods: Landowners, Laborers, Capitalists₂
(Demand for Present Goods)

Capitalists₁ are the first-stage capitalists who produce consumers' goods. They purchase capital goods from the producer-owners — the second-stage capitalists, or Capitalists₂. The appropriate *S*'s

¹³The fact that consumers may physically consume all or part of these goods at a later date does not affect this conclusion, because any further consumption takes place outside the money nexus, and it is the latter that we are analyzing.

and *D*'s indicate these transactions, and the arrows pointing upward indicate the direction of money payment.

At the next stage, the Capitalists₂ have to purchase services of factors of production. They supply present goods and purchase future goods, goods which are even more distantly in the future than the product that they will produce.¹⁴ These future goods are supplied by landowners, laborers, and Capitalists₃. To sum up, at the second stage:

Supply of Present Goods: Capitalists₂

Supply of Future Goods: Landowners, Laborers, Capitalists₃

These transactions are marked with the appropriate *S*'s and *D*'s, and the arrows pointing upward indicate the direction of money payment in these transactions.

This pattern is continued until the very last stage. At this final stage, which is here the sixth, the sixth-stage capitalists supply future goods to the fifth-stage capitalists, but also supply present goods to laborers and landowners in exchange for the extremely distant future services of the latter. The transactions for the two highest stages are, then, as follows (with the last stage designated as *N* instead of six):

Fifth Stage:

Supply of Present Goods: Capitalists₅

Supply of Future Goods: Landowners, Laborers, Capitalists_{*N*}

¹⁴No important complication arises from the greater degree of futurity of the higher-order factors. As we have indicated above, a *more* distantly future good will simply be discounted by the market by a greater amount, though at the same rate per annum. The interest *rate*, *i.e.*, the discount rate of future goods per unit of time, remains the same regardless of the degree of futurity of the good. This fact serves to resolve one problem mentioned above—vertical integration by firms over one or more stages. If the equilibrium rate of interest is 5 percent per year, then a one-stage producer will earn 5 percent on his investment, while a producer who advances present goods over three stages—for three years—will earn 15 percent, *i.e.*, 5 percent per annum.

Nth Stage:

Supply of Present Goods: Capitalists_N

Supply of Future Goods: Landowners, Laborers

We may now sum up our time market for any production structure of N stages:

<i>Suppliers of Present Goods</i>	<i>Suppliers of Future Goods (Demanders of Present Goods)</i>
Capitalists ₁	All Landowners
Capitalists ₂	All Laborers
Capitalists ₃	Capitalists ₂
.....	Capitalists ₃
.....	
.....	
Capitalists _N	Capitalists _N

To illustrate clearly the workings of the production structure, let us hark back to the numerical example given in Figure 41 and summarize the quantities of present goods supplied and received by the various components of the time market. We may use the same figures here to apply to the *aggregate* production structure, although the reader may wish to consider the units as multiples of gold ounces in this case. The fact that different durations of production processes and different degrees of vertical integration make no difficulties for aggregation permits us to use the diagram almost interchangeably for a single production process and for the economy as a whole. Furthermore, the fact that the ERE interest rate will be the same for all stages and all goods in the economy especially permits us to aggregate the comparable stages of all goods. For if the rate is 5 percent, then we may say that for a certain stage of one good, payments by capitalists to owners of factors are 50 ounces, and receipts from sales of products are 52.5 ounces, while we can also assume that the aggregate payments for the whole economy in the same period are 5,000 ounces, and receipts 5,250 ounces.

The same interest rate connotes the same rate of return on investments, whether considered separately or for all goods lumped together.

The following, then, are the supplies and demands for present goods from Figure 41, the diagram now being treated as an aggregate for the whole economy:

<i>(Savers)</i>		<i>Demanders of Present Goods</i>	
<i>Suppliers of</i>		<i>Suppliers of Future Goods</i>	
<i>Present Goods</i>			
Capitalists ₁ . . . 95 oz.	→ 15 oz.	Land and Labor Owners; Capitalists ₂	80 oz.
Capitalists ₂ . . . 76 oz.	→ 16 oz.	Land and Labor Owners; Capitalists ₃	60 oz.
Capitalists ₃ . . . 57 oz.	→ 12 oz.	Land and Labor Owners; Capitalists ₄	45 oz.
Capitalists ₄ . . . 43 oz.	→ 13 oz.	Land and Labor Owners; Capitalists ₅	30 oz.
Capitalists ₅ . . . 28 oz.	→ 8 oz.	Land and Labor Owners; Capitalists _N	20 oz.
Capitalists _N . . . 19 oz.	→ 19 oz.	Land and Labor Owners	
	<u>318 oz.</u>	<u>83 oz.</u>	<u>235 oz.</u>

The horizontal arrows at each stage of this table depict the movement of money as supplied from the savers to the recipient demanders at that stage.

From this tabulation it is easy to derive the *net* money income of the various participants: their *gross* money income minus their money payments, if we include the entire period of time for all of their transactions on the time market. The case of the owners of land and labor is simple: they receive their money in exchange for the future goods to be yielded by their factors; this money is their gross *and* their net money income from the productive system. The total of net money income to the owners of land and labor is 83 ounces. This is the sum of the money incomes to the various owners of land and labor at each stage of production.

The case of the capitalists is far more complicated. They pay out present goods in exchange for future goods and then sell the

maturing less distantly future products for money to lower-stage capitalists. Their *net* money income is derived by subtracting their money outgo from their gross income over the period of the production stage. In our example, the various net incomes of the capitalists are as follows:

Net Incomes of Capitalists Producing Capital Goods

Capitalists ₂	80 – 76 = 4 oz.
Capitalists ₃	60 – 57 = 3 oz.
Capitalists ₄	45 – 43 = 2 oz.
Capitalists ₅	30 – 28 = 2 oz.
Capitalists _N	20 – 19 = 1 oz.
	12 oz.

The total net income of the capitalists producing capital goods (orders 2 through *N*) is *12 ounces*. What, then, of Capitalists₁, who apparently have not only no net income, but a deficit of 95 ounces? They are recouped, as we see from the diagram (in Figure 41), *not* from the savings of capitalists, but from the expenditure of consumers, which totals 100 ounces, yielding a net income to Capitalists₁ of five ounces.

It should be emphasized at this point that the general pattern of the structure of production and of the time market will be the same in the real world of uncertainty as in the ERE. The difference will be in the amounts that go to each sector and in the relations among the various prices. We shall see later what the discrepancies will be; for example, the rate of return by the capitalists in each sector will not be uniform in the real market. But the *pattern* of payments, the composition of suppliers and demanders, will be the same.

In analyzing the income-expenditure balance sheets of the production structure, writers on economic problems have seen that we may consolidate the various incomes and consider only the net incomes. The temptation has been simply to write off the various intercapitalist transactions as “duplications.” If that is done here, then the total net income in the market is: capitalists,

17 ounces (12 ounces for capital-good capitalists and five ounces for consumers'-good capitalists); land and labor factors, 83 ounces. The grand total net income is then 100 ounces. This is exactly equal to the total of consumer spending for the period.

Total net income is 100 ounces, and consumption is 100 ounces. There is, therefore, no new *net* saving. We shall deal with savings and their change in detail below. Here the point is that, in the endless round of the ERE, zero *net* savings, as thus defined, would mean that there is just enough *gross* saving to keep the structure of productive capital intact, to keep the production processes rolling, and to keep a constant amount of consumers' goods produced per given period.

It is certainly legitimate and often useful to consider net incomes and net savings, but it is not always illuminating, and its use has been extremely misleading in present-day economics.¹⁵ Use of the net "national" income figures (it is better to deal with "social income" extending throughout the market community using the money rather than to limit the scope to national boundaries) leads one to believe that the really important element maintaining the production structure is consumers' spending. In our ERE example, the various factors and capitalists receive their net income and plow it back into consumption, thus maintaining the productive structure and future standards of living, i.e., the output of consumers' goods. The inference from such concepts is clear: capitalists' savings are necessary to increase and deepen the capital structure, but even without any savings, consumption expenditure is alone sufficient to maintain the productive capital structure intact.

This conclusion seems deceptively clear-cut: after all, is not consumer spending the bulwark and end product of activity? This thesis, however, is tragically erroneous. There is no simple automatism in capitalists' spending, especially when we leave the certain world of the ERE, and it is in this real world that the

¹⁵Very recently, greater realism has been introduced into social accounting by considering intercapitalist "money flows."

conceptual error plays havoc. For with production divided into stages, it is not true that consumption spending is sufficient to provide for the maintenance of the capital structure. When we consider the maintenance of the capital structure, we must consider *all the decisions* to supply present goods on the present-future market. These decisions are *aggregated*; they do not cancel one another out. Total savings in the economy, then, are not zero, but the aggregation of all the present goods supplied to owners of future goods during the production process. This is the sum of the supplies of Capitalists₁ through Capitalists_N, which totals *318 ounces*. This is the total *gross* savings—the supply of present goods for future goods in production—and also equals total *gross* investment. Investment is the amount of money spent on future-good factors and necessarily equals savings. Total expenditures on production are: 100 (Consumption) plus 318 (Investment = Savings), equals *418 ounces*. Total gross income from production equals the gross income of Capitalists₁ (100 ounces) plus the gross income of other capitalists (235 ounces) plus the gross income of owners of land and labor (83 ounces), which also equals *418 ounces*.

The system depicted in our diagram of the production structure, then, is of an economy in which *418 gold ounces* are earned in gross income, and *100 ounces* are spent on consumption, while *318 ounces* are saved and invested in a certain order in the production structure. In this evenly rotating economy, 418 ounces are earned and then spent, with no net “hoarding” or “dishoarding,” i.e., no net additions or subtractions from the cash balance over the period as a whole.¹⁶

Thus, instead of no savings being needed to maintain capital and the production structure intact, we see that a very heavy proportion of savings and investment—in our example three

¹⁶Problems of hoarding and dishoarding from the cash balance will be treated in chapter 11 on money and are prescinded from the present analysis.

times the amount spent on consumption—is necessary simply to keep the production structure intact. The contrast is clear when we consider *who* obtains income and who is empowered to decide whether to consume or to invest. The net-income theorists implicitly assume that the only important decisions in regard to consuming vs. saving-investing are made by the factor-owners out of their net income. Since the net income of capitalists is admittedly relatively small, this approach attributes little importance to their role in maintaining capital. We see, however, that what maintains capital is *gross* expenditures and *gross* investment and not net investment. The capitalists at each stage of production, therefore, have a vital role in maintaining capital through their savings and investment, through heavy savings from gross income.

Concretely, let us take the case of the Capitalists₁. According to the net-income theorists, their role is relatively small, since their net income is only five ounces. But actually their gross income is 100 ounces, and *it is their decision on how much of this to save and how much to consume that is decisive*. In the ERE, of course, we simply state that they save and invest 95 ounces. But when we leave the province of the ERE, we must realize that there is nothing automatic about this investment. There is no natural law that they must reinvest this amount. Suppose, for example, that the Capitalists₁ decide to break up the smooth flow of the ERE by spending all of the 100 ounces for their own consumption rather than investing the 95 ounces. It is evident that the entire market-born production structure would be destroyed. No income at all would accrue to the owners of all the higher-order capital goods, and all the higher-order capital processes, all the production processes longer than the very shortest, would have to be abandoned. We have seen above, and shall see in more detail below, that civilization advances by virtue of additional capital, which lengthens production processes. Greater quantities of goods are made possible only through the employment of more capital in longer processes. Should capitalists shift from saving-investment to consumption,

all these processes would be necessarily abandoned, and the economy would revert to barbarism, with the employment of only the shortest and most primitive production processes. The standard of living, the quantity and variety of goods produced, would fall catastrophically to the primitive level.¹⁷

What could be the reason for such a precipitate withdrawal of savings and investment in favor of consumption? The only reason—on the free market—would be a sudden and massive increase in the time-preference schedules of the capitalists, so that present satisfactions become worth very much more in terms of future satisfactions. Their higher time preferences mean that the existing rate of interest is not enough to induce them to save and invest in their previous proportions. They therefore consume a greater proportion of their gross income and invest less.

Each individual, on the basis of his time-preference schedule, decides between the amount of his money income to be devoted to saving and the amount to be devoted to consumption. *The aggregate time-market schedules (determined by time preferences) determine the aggregate social proportions between (gross) savings and consumption.* It is clear that the higher the time-preference schedules are, the greater will be the proportion of consumption to savings, while lower time-preference schedules will lower this proportion. At the same time, as we have seen, higher time-preference schedules in the economy lead to higher rates of interest, and lower schedules lead to lower rates of interest.

From this it becomes clear that *the time preferences of the individuals on the market determine simultaneously and by themselves both the market equilibrium interest rate and the proportions between consumption and savings (individual and aggregate).*¹⁸ Both of the latter

¹⁷Cf. Knut Wicksell, *Lectures on Political Economy* (London: Routledge and Kegan Paul, 1934), I, 189–91.

¹⁸For more on the relations between the interest rate, i.e., the price spreads or margins, and the proportions invested and consumed, see below.

are the obverse side of the same coin. In our example, the increase in time-preference schedules has caused a decline in savings, absolute and proportionate, and a rise in the interest rate.

The fallacies of the net product figures have led economists to include some “grossness” in their product and income figures. At present the favorite concept is that of the “gross national product” and its counterpart, gross national expenditures. These concepts were adopted because of the obvious errors encountered with the net income concepts.¹⁹ Current “gross” figures, however, are the height of illogicality, because they are not gross at all, but only partly gross. They include only gross purchases by capitalists of *durable* capital goods and the consumption of their self-owned durable capital, approximated by depreciation allowances set by the owners. We shall consider the problems of durable capital more fully below, but suffice it to say that there is no great difference between durable and less durable capital. Both are consumed in the course of the production process, and both must be paid for out of the gross income and gross savings of lower-order capitalists. In evaluating the payment pattern of the production structure, then, it is inadmissible to leave the consumption of nondurable capital goods out of the investment picture. It is completely illogical to single out durable goods, which are themselves only discounted embodiments of their nondurable services and therefore no different from nondurable goods.

The idea that the capital structure is maintained intact without savings, as it were automatically, is fostered by the use of the “net” approach. If even zero savings will suffice to maintain capital, then it seems as if the aggregate value of capital is a

¹⁹On gross and net product, see Milton Gilbert and George Jaszi, “National Product and Income Statistics as an Aid in Economic Problems” in W. Fellner and B.F. Haley, eds., *Readings in the Theory of Income Distribution* (Philadelphia: Blakiston, 1946), pp. 44–57; and Simon Kuznets, *National Income, A Summary of Findings* (New York: National Bureau of Economic Research, 1946), pp. 111–21, and especially p. 120.

permanent entity that cannot be reduced. This notion of the permanence of capital has permeated economic theory, particularly through the writings of J.B. Clark and Frank H. Knight, and through the influence of the latter has molded current "neoclassical" economic theory in America. To maintain this doctrine it is necessary to deny the stage analysis of production and, indeed, to deny the very influence of *time* in production.²⁰ The all-pervading influence of time is stressed in the period-of-production concept and in the determination of the interest rate and of the investment-consumption ratio by individual time-preference schedules. The Knight doctrine denies any role to time in production, asserting that production "now" (in a modern, complex economy) is timeless and that time preference has *no* influence on the interest rate. This doctrine has been aptly called a "mythology of capital." Among other errors, it leads to the belief that there is no economic problem connected with the replacement and maintenance of capital.^{21,22}

A common fallacy, fostered directly by the net-income approach, holds that the important category of expenditures in the

²⁰If permanence is attributed to the mythical entity, the aggregate value of capital, it becomes an independent factor of production, along with labor, and earns interest.

²¹The fallacy of the "net" approach to capital is at least as old as Adam Smith and continues down to the present. See Hayek, *Prices and Production*, pp. 37–49. This book is an excellent contribution to the analysis of the production structure, gross savings and consumption, and in application to the business cycle, based on the production and business cycle theories of Böhm-Bawerk and Mises respectively. Also see Hayek, "The Mythology of Capital" in W. Fellner and B.F. Haley, eds., *Readings in the Theory of Income Distribution* (Philadelphia: Blakiston, 1946), pp. 355–83; *idem*, *Profits, Interest, and Investment*, *passim*.

²²For a critique of the analogous views of J.B. Clark, see Frank A. Fetter, "Recent Discussions of the Capital Concept," *Quarterly Journal of Economics*, November, 1900, pp. 1–14. Fetter succinctly criticizes Clark's failure to explain interest on consumption goods, his assumption of a permanent capital fund, and his assumption of "synchronization" in production.

production system is consumers' spending. Many writers have gone so far as to relate business prosperity directly to consumers' spending, and depressions of business to declines in consumers' spending. "Business cycle" considerations will be deferred to later chapters, but it is clear that there is little or no relationship between prosperity and consumers' spending; indeed almost the reverse is true. For business prosperity, the important consideration is the price spreads between the various stages—i.e., the rate of interest return earned. It is this rate of interest that induces capitalists to save and invest present goods in productive factors. The rate of interest, as we have been demonstrating, is set by the configurations of the time preferences of individuals in the society. It is not the total quantity of money spent on consumption that is relevant to capitalists' returns, but the *margins*, the spreads, between the product prices and the sum of factor prices at the various stages—spreads which tend to be proportionately equal throughout the economy.

There is, in fact, *never any need to worry about the maintenance of consumer spending*. There must always be consumption; as we have seen, after a certain amount of monetary saving, there is always an irreducible minimum of his monetary assets that every man will spend on current consumption. The fact of human action insures such an irreducible minimum. And as long as there is a monetary economy and money is in use, it will be spent on the purchase of consumers' goods. The proportion spent on capital in its various stages and *in toto* gives a clue to the *important* consideration—the real output of consumers' goods in the economy. The total amount of money spent, however, gives no clue at all. Money and its value will be systematically studied in a later chapter. It is obvious, however, that the number of units spent could vary enormously, depending on the quantity of the money commodity in circulation. One hundred or 1,000 or 10,000 or 100,000 ounces of gold might be spent on consumption, without signifying anything except that the quantity of money units available was less or greater. The total

amount of money spent on consumption gives no clue to the quantity of goods the economy may purchase.

The important consideration, therefore, is time preferences and the resultant proportion between expenditure on consumers' and producers' goods (investment). The lower the proportion of the former, the heavier will be the investment in capital structure, and, after a while, the more abundant the supply of consumers' goods and the more productive the economy. The obverse of the coin is the determining effect of time preferences on the price spreads that set the rate of interest, and the income of the capitalist savers-investors in the economy. We have already seen the effect of a lowering of investment on the first rank, and below we shall analyze fully the effect on production and interest of a lowering of time preferences and the effects of various changes in the quantity of money on time preferences and the production structure.

Before continuing with an analysis of time preference and the production structure, however, let us complete our examination of the components of the time market.²³

The pure demanders of present goods on the time market are the various groups of laborers and landowners—the sellers of the services of original productive factors. Their price on the market, as will be seen below, will be set equal to the *marginal value product* of their units, *discounted* by the prevailing rate of interest. The greater the rate of interest, the less will the price of their service be, or rather, the greater will be the *discount* from their marginal value product considered as the matured present good. Thus, if the marginal value product of a certain labor or land factor is 10 ounces per unit period, and the rate of interest is 10 percent, its earning price will be approximately nine ounces per year if the final product is one year away. A higher rate of interest would lead to a lower price, and a lower rate to a higher price, although the maximum price is one slightly below the full MVP (marginal value product), since the interest rate can never disappear.

²³Cf. Böhm-Bawerk, *Positive Theory of Capital*, pp. 299–322, 329–38.

It seems likely that the demand schedule for present goods by the original productive factors will be highly inelastic in response to changes in the interest rate. With the large base amount, the discounting by various rates of interest will very likely make little difference to the factor-owner.²⁴ Large changes in the interest rate, which would make an enormous difference to capitalists and determine huge differences in interest income and the profitability of various lengthy productive processes, would have a negligible effect on the earnings of the owners of the original productive factors.

On the time market, we are considering all factors in the aggregate; the interest rate of the time market permeates all particular aspects of the present-future market, including all purchases of land and labor services. Therefore, when we are considering the supply of a certain factor on the market, we are considering it *in general*, and not its supply schedule for a specific use. A group of homogeneous pieces of land may have three alternative uses: say, for growing wheat, raising sheep, or serving as the site of a steel factory. Its supply schedule for each of the three uses will be elastic (relatively flat curve) and will be determined by the amount it can obtain in the next best use—i.e., the use in which its discounted MVP is next highest. In the present analysis, we are not considering the factor's supply curve for a *particular* industry or use; we are considering its supply curve for all users *in the aggregate*, i.e., its supply curve on the time market in exchange for present goods. We are

²⁴The rate of interest, however, will make a great deal of difference in so far as he is an owner and seller of a durable good. Land is, of course, durable almost by definition—in fact, generally permanent. So far, we have been dealing only with the sale of factor *services*, i.e., the “hire” or “rent” of the factor, and abstracting from the sale or valuation of durable factors, which embody future services. Durable land, as we shall see, is “capitalized,” i.e., the value of the factor as a whole is the discounted sum of its future MVP's, and there the interest rate will make a significant difference. The price of durable land, however, is irrelevant to the supply schedule of land *services* in demand for present money.

therefore considering the behavior of all owners of a homogeneous factor of land (or of one owner if the land factor is unique, as it often is). Land is very likely to have *no* reservation price, i.e., it will have little subjective-use-value to the owner. A few landlords may place a valuation on the possibility of contemplating the virgin beauty of the unused land; in practice, however, the importance of such reservation-demand for land is likely to be negligible. It will, of course, be greater where the owner can use the land to grow food for himself.

Labor services are also likely to be inelastic with respect to the interest discount, but probably less so than land, since labor has a reservation demand, a subjective use-value, even in the aggregate labor market. This special reservation demand stems from the value of leisure as a consumers' good. Higher prices for labor services will induce more units of labor to enter the market, while lower prices will increase the relative advantages of leisure. Here again, however, the difference that will be made by relatively large changes in the interest rate will not be at all great, so that the aggregate supply-of-labor curve (or rather curves, one for each homogeneous labor factor) will tend to be inelastic with regard to the interest rate.

The two categories of independent demanders of present goods for future goods, then, are the *landowners* and the *laborers*. The suppliers of present goods on the time market are clearly the *capitalists*, who save from their possible consumption and invest their savings in future goods. But the question may be raised: Do not the capitalists also *demand* present goods as well as supply them?

It is true that capitalists, after investing in a stage of production, demand present goods in exchange for their product. This particular demand is inelastic in relation to interest changes since these capital goods also can have no subjective use-value for their producers. This demand, however, is strictly derivative and dependent. In the first place, the product for which the owner demands present goods is, of course, a future good, but

it is also one stage *less distantly future* than the goods that the owner purchased in order to produce it. In other words, Capitalists₃ will sell their future goods to Capitalists₂, but they had bought future goods from Capitalists₄, as well as from landowners and laborers. Every capitalist at every stage, then, *demand*s goods that are *more* distantly future than the product that he supplies, and he supplies present goods for the duration of the production stage until this product is formed. He is therefore a *net supplier of present goods*, and a *net demander of future goods*. Hence, his activities are guided by his role as a supplier. The higher the rate of interest that he will be able to earn, i.e., the higher the price spread, the more he will tend to invest in production. If he were not essentially a supplier of present goods, this would not be true.

The relation between his role as a supplier and as a demander of present goods may be illustrated by the diagram in Figure 46.

This diagram is another way of conveniently representing the structure of production. On the horizontal axis are represented the various stages of production, the dots furthest to the left being the highest stages, and those further to the right being the lower stages. From left to right, then, the stages of production are lower and eventually reach the consumers'-good

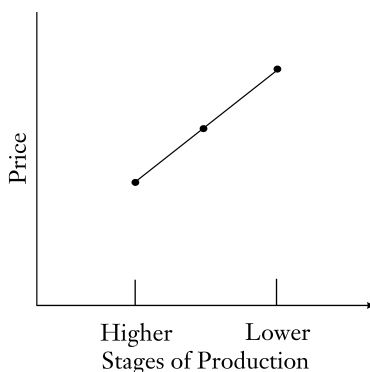


FIGURE 46. RELATION OF CUMULATIVE FACTOR PRICES TO STAGES OF PRODUCTION

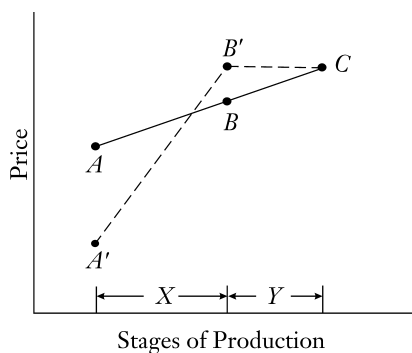


FIGURE 47. EFFECT OF THE TENDENCY
TOWARD A UNIFORM RATE OF INTEREST

stage. The vertical axis represents prices, and it could interchangeably be either the production structure of one particular good or of all the goods in general. The prices that are represented at each stage are the *cumulative* prices of the factors at each stage, *excluding* the interest return of the capitalists. At each stage rightward, then, the level of the dots is higher, the difference representing the interest return to the capitalists at that stage. In this diagram, the interest return to capitalists at two adjacent stages is indicated, and the constant slope indicates that this return is equal.

Let us now reproduce the above diagram in Figure 47.²⁵ The original production structure diagram is marked at points *A*, *B*, and *C*. Capitalists *X* purchase factors at price *A* and sell their product at point *B*, while capitalists *Y* buy at *B* and sell their product at *C*. Let us first consider the highest stage here portrayed—that of capitalists *X*. They purchase the factors at point *A*. Here they *supply* present goods to owners of factors. Capitalists *X*, of course, would prefer that the prices of the factors be

²⁵Strictly, of course, the slope would not be constant, since the return is in equal *percentages*, not in equal absolute amounts. Slopes are treated as constant here, however, for the sake of simplicity in presenting the analysis.

lower; thus, they would prefer paying A' rather than A . Their interest spread cannot be determined until their selling prices are determined. Their activities as suppliers of present goods in exchange for interest return, therefore, are not really completed with their purchase of factors. Obviously, they could not be. The capitalists must transform the factors into products and sell their products for money before they obtain their interest return from their supply of present goods. The suppliers of future goods (landowners and laborers) *complete* their transactions immediately, as soon as they obtain present money. But the capitalists' transactions are incomplete until they obtain present money once again. Their demand for present goods is therefore strictly dependent on their previous supply.

Capitalists X , as we have stated, sell their products at B to the next lower rank of capitalists. Naturally, they would prefer a higher selling price for their product, and the point B' would be preferred to B . If we looked only at this sale, we might be tempted to state that, as demanders of present goods, capitalists X prefer a higher price, and therefore a lower discount for their product, i.e., a lower interest rate. This, however, would be a superficial point of view, for we must look at both of their exchanges, which are necessarily considered together if we consider their *complete* transaction. They prefer a lower buying point and a higher selling point, i.e., a more steeply sloped line, or a *higher rate of discount*. In other words, the capitalists prefer a higher rate of interest and therefore always act as *suppliers* of present goods. Of course, the result of this particular change (to a price spread of $A'B'$) is that the next lower rung of capitalists, capitalists Y , suffer a narrowing of their price spread, along the line $B'C$. It is, of course, perfectly agreeable to capitalists X if capitalists Y suffer a lowering of their interest return, so long as the return of the former improves. Each capitalist is interested in improving his own interest return and not necessarily the rate of interest in general. However, as we have seen, *there cannot for long be any differences in interest return between one stage and another or between one production process and another*. If the $A'B'C$

situation were established, capitalists would pour out of the *Y* stage and into the *X* stage, the increased demand would bid up the price above *A'*, the sales at *B'* would be increased and the demand lowered, and the supply at *C* lowered, until finally the interest returns were equalized. There is always a tendency for such equalization, and this equalization is actually completed in the ERE.

5. Time Preference, Capitalists, and Individual Money Stock

When we state that the time-preference schedules of all individuals in the society determine the interest rate and the proportion of savings to consumption, we mean *all* individuals, and not some sort of separate class called “capitalists.” There is a temptation, since the production structure is analyzed in terms of different classes—landowners, laborers, and capitalists—to conclude that there are three definite stratified groups of *people* in society corresponding to these classifications. Actually, in economic analysis of the market we are concerned with *functions* rather than *whole persons per se*. In reality, there is no special class of capitalists set off from laborers and landowners. This is not simply due to the trite fact that even capitalists must also be consumers. It is also due to the more important fact that *all* consumers *can be capitalists* if they wish. They will be capitalists if their time-preference schedules so dictate. Time-market diagrams such as shown above apply to every man, and not simply to some select group known as capitalists. The interchange of the various aggregate supply and demand diagrams throughout the entire time market sets the equilibrium rate of interest on the market. At this rate of interest, some individuals will be suppliers of present goods, some will be demanders, the curves representing the supply and demand schedules of others will be coinciding with their line of origin and they will not be in the time market at all. Those whose time-preference schedules at this rate permit them to be suppliers will be the *savers*—i.e., they will be the capitalists.

Let me illustrate my argument with a simple numerical example that traces the evolution of a Robinson Crusoe economy through five periods, starting with T_0 and ending with T_4 . The economy is represented in Table 1 (below) in terms of the daily allocation of Crusoe's labor among alternative employments and the resulting product of each of these employments. In period T_0

TABLE 1

PERIOD	INPUT	OUTPUT	DURABILITY NEW CAPITAL	GROSS & NET INVESTMENT/TOTAL CAPITAL
T_0	12 hrs. → 12 hrs. →	12 hrs. leisure 4 fish		$G = 0$; $N = 0$; $K = 0$
T_1	11 hrs. → 9 hrs. → ----- 4 hrs. →	11 hrs. leisure 3 fish ----- building net ($B = 500$ hrs.)	Fishing net: 500 days	$G = 4$ hrs. per day $N = 4$ hrs. per day $\Delta K = 4$ hrs. per day for 125 days
T_2	14 hrs. → 9 hrs. → ----- 1 hr. →	14 hrs. leisure 9 fish ----- replacing net		$G = 1$ hr. per day $N = 0$ hrs. per day $K = 500$ hrs.
T_3	13 hrs. → 7 hrs. → ----- 1 hr. → 3 hrs. →	13 hrs. leisure 7 fish ----- replacing net building ladder ($B = 600$ hrs.)	Ladder: 1,200 days	$G = 4$ hrs. per day $N = 3$ hrs. per day $\Delta K = 3$ hrs. per day for 200 days
T_4	13 hrs. → 8 hrs. → 1½ hrs. → ----- 1 hr. → ½ hr. →	13 hrs. leisure 8 fish 6 coconuts ----- replacing net replacing ladder		$G = 1\frac{1}{2}$ hrs. per day $N = 0$ hrs. per day $K = 1,100$ hrs.
T_5	13 hrs. → 7 hrs. → 1 hr. → ----- 1 hr. → ½ hr. → 1½ hrs. →	13 hrs. leisure 7 fish 4 coconuts ----- replacing net replacing ladder building house ($B = 3,000$ hrs.)	House: 10,000 days	$G = 3$ hrs. per day $N = 1\frac{1}{2}$ hrs. per day $\Delta K = 1\frac{1}{2}$ hrs. per day for 2,000 days

Crusoe divides his daily labor endowment of 24 hours evenly between the production of leisure and the catching of fish by hand, yielding 12 hours of leisure and 4 fish. The result is a stationary economy in which gross investment (G), which is equal to replacement investment (R) plus net investment (N), and total capital invested (K) are both constant and equal to 0. Net investment, defined as a change in total invested capital, is therefore also 0.

It can now be assumed that Crusoe experiences a lowering of his time preferences and decides to invest in building a durable good, let us say, a fishing net that will triple his future productivity in catching fish. The net, we assume, requires a building time (B) of 500 hours of labor and will remain fully productive for 500 days, after which it will become totally useless and must be replaced. We further assume that its durability is invariant to the intensity of its daily use. Crusoe chooses to allocate 4 hours per day for 125 days to build the net, sacrificing or “saving” 1 fish and 1 hour of leisure per day and accumulating a total capital investment of 500 labor hours during the transition period, T_1 . Crusoe’s pattern of productive activities during T_1 brings into being a progressing economy in which net investment is positive and total capital is increasing. When the fishing net is completed at the end of T_1 , and assuming Crusoe’s intertemporal preferences remain unchanged, a new stationary economy emerges in period T_2 in which Crusoe’s standard of living improves to 14 hours of leisure and 9 fish. To maintain this standard of living intact, Crusoe would need to devote 1 hour of labor per day to replacing the existing fishing net with a new one, so that total capital invested in this economy remains constant at 500 hours and net investment falls back to 0.

Now it may be the case that, as a result of the more abundant provision of present consumer goods resulting from his previous act of net saving, Crusoe’s time preferences fall again, so that the stationary economy depicted in T_2 never materializes, and Crusoe’s economy moves directly to the progressing economy depicted in period T_3 . In other words, the present prospect of the eighth and ninth fish and the fourteenth hour of leisure per day ranks lower on Crusoe’s current value scale than, for example, the quantity of future coconuts that may be obtained by investing in the construction of a ladder that permits him to collect them from trees. Thus Crusoe invests 3 hours per day for 200 days building a ladder that will completely wear out after providing a product for 1,200 days, again regardless of the intensity of its daily use. When the ladder has been completed Crusoe’s economy may then (a) either settle into the stationary economy depicted in T_4 , in which net investment is once again zero and total capital investment is maintained constant at 1,100 hours with daily replacement investment equal to $1\frac{1}{2}$ hours, or, (b) by virtue of a further decline in his time preferences induced by his rising real income, Crusoe may immediately undertake yet another act of net investment. For instance, he may undertake the construction of a house, as in T_5 , that will

cost him a decline in the potential standard of living attainable in the stationary economy of T_4 .

It is important to note that, despite the fact that Crusoe's real income in T_3 is sufficiently greater than it was in T_1 to afford Crusoe both an unambiguously higher standard of living and the wherewithal to undertake extra investment beyond the requisite replacement investment, the resources needed for the net investment are not somehow gratuitously available but are the product of a fall in Crusoe's time preferences and a corresponding act of net saving. The same is true with regard to the relationship between the progressing economies described in periods T_5 and T_3 , respectively. Thus, in the course of Crusoe's economic development, it is possible that the stationary economies portrayed in periods T_2 and T_4 are never realized, because Crusoe's economy is in continual transition to a production structure based on ever-higher levels of the total capital stock. Nevertheless, these notional no-growth economies still play a key role in the evolution of Crusoe's economy because they are the source of the opportunity costs incurred by Crusoe in his choices to undertake discrete acts of net saving and net investment. Thus, in T_5 , Crusoe lengthens his production structure vis-à-vis T_4 in order to accommodate his choice to sacrifice present enjoyment of 1 fish and 2 coconuts for a period of 2,000 days to achieve his investment goal of a shelter that yields him housing services for the succeeding 10,000 days.

This example is not designed to prove my argument against Garrison but merely to illustrate the difference in our positions and to shed light on an important methodological assumption upon which we differ. Garrison holds that "secular growth" occurs when ongoing gross investment with fixed technology and intertemporal preferences is sufficiently large to provide for maintenance of the existing capital structure as well as providing resources for accumulating additional capital. According to Garrison, therefore, Crusoe's choice in T_1 to reallocate 4 hours of labor from consumer goods' industries (above the dashed line) to capital goods industries (below the dashed line) initiates a secular growth process that propels the economy sequentially through periods T_3 and T_5 without any further alteration in Crusoe's time preferences. Garrison's contention that this growth process takes place in the absence of intervening "wealth effects" implies that the stationary economies depicted in periods T_2 and T_4 are completely irrelevant to the story.⁷

My objections to Garrison's story on secular growth are both substantive and methodological. Substantively, an immediate inference from what Mises calls "categorical" time preference—the preference for present over future satisfaction that is expressed in every action—is that an actor's "period of provision"

⁷"Our treatment of secular growth abstracts from this relationship between wealth and time preferences" (p. 55).

A. THE ECONOMIC NATURE OF PROFIT AND LOSS

1. The Emergence of Profit and Loss

In the capitalist system of society's economic organization the entrepreneurs determine the course of production. In the performance of this function they are unconditionally and totally subject to the sovereignty of the buying public, the consumers. If they fail to produce in the cheapest and best possible way those commodities which the consumers are asking for most urgently, they suffer losses and are finally eliminated from their entrepreneurial position. Other men who know better how to serve the consumers replace them.

If all people were to anticipate correctly the future state of the market, the entrepreneurs would neither earn any profits nor suffer any losses. They would

Ludwig von Mises (1881–1973) was dean of the Austrian School of economics. This paper was prepared for the meeting of the Mont Pèlerin Society held in Beauvallon, France, September 9–16, 1951. It is included in *Planning for Freedom* (South Holland, Ill.: Libertarian Press, 1952).

have to buy the complementary factors of production at prices which would, already at the instant of the purchase, fully reflect the future prices of the products. No room would be left either for profit or for loss. What makes profit emerge is the fact that the entrepreneur who judges the future prices of the products more correctly than other people do buys some or all of the factors of production at prices which, seen from the point of view of the future state of the market, are too low. Thus the total costs of production—including interest on the capital invested—lag behind the prices which the entrepreneur receives for the product. This difference is entrepreneurial profit.

On the other hand, the entrepreneur who misjudges the future prices of the products allows for the factors of production prices which, seen from the point of view of the future state of the market, are too high. His total cost of production exceeds the prices at which he can sell the product. This difference is entrepreneurial loss.

Thus profit and loss are generated by success or failure in adjusting the course of production activities to the most urgent demand of the consumers. Once this adjustment is achieved, they disappear. The prices of the complementary factors of production reach a height at which total costs of production coincide with the price of the product. Profit and loss are ever-present features only on account of the fact that ceaseless change in the economic data makes again and again new discrepancies, and consequently the need for new adjustments originates.

2. The Distinction Between Profits and Other Proceeds

Many errors concerning the nature of profit and loss were caused by the practice of applying the term profit to the totality of the residual proceeds of an entrepreneur.

Interest on the capital employed is not a component part of profit. The dividends of a corporation are not profit. They are interest on the capital invested plus profit or minus loss.

The market equivalent of work performed by the entrepreneur in the conduct of the enterprise's affairs is entrepreneurial quasi-wages but not profit.

If the enterprise owns a factor on which it can earn monopoly prices, it makes a monopoly gain. If this enterprise is a corporation, such gains increase the dividend. Yet they are not profit proper.

Still more serious are the errors due to the confusion of entrepreneurial activity and technological innovation and improvement.

The maladjustment the removal of which is the essential function of entrepreneurship may often consist in the fact that new technological methods have not yet been utilized to the full extent to which they should be in order to bring about the best possible satisfaction of consumers' demand. But this is not necessarily always the case. Changes in the data, especially in consumers' demand, may require adjustments which have no reference at all to technological innovations and improvements. The entrepreneur who simply increases the production of an article by adding to the existing production facilities a new outfit without any

change in the technological method of production is no less an entrepreneur than the man who inaugurates a new way of producing. The business of the entrepreneur is not merely to experiment with new technological methods, but to select from the multitude of technologically feasible methods those which are best fit to supply the public in the cheapest way with the things they are asking for most urgently. Whether a new technological procedure is or is not fit for this purpose is to be provisionally decided by the entrepreneur and will be finally decided by the conduct of the buying public. The question is not whether a new method is to be considered as a more “elegant” solution of a technological problem. It is whether, under the given state of economic data, it is the best possible method of supplying the consumers in the cheapest way.

The activities of the entrepreneur consist in making decisions. He determines for what purpose the factors of production should be employed. Any other acts which an entrepreneur may perform are merely accidental to his entrepreneurial function. It is this that laymen often fail to realize. They confuse the entrepreneurial activities with the conduct of the technological and administrative affairs of a plant. In their eyes not the stockholders, the promoters and speculators, but hired employees are the real entrepreneurs. The former are merely idle parasites who pocket the dividends.

Now nobody ever contended that one could produce without working. But neither is it possible to produce without capital goods, the previously produced factors of further production. These capital goods are scarce, i.e., they do not suffice for the production of all things which one would like to have produced. Hence

the economic problem arises: to employ them in such a way that only those goods should be produced which are fit to satisfy the most urgent demands of the consumers. No good should remain unproduced on account of the fact that the factors required for its production were used—wasted—for the production of another good for which the demand of the public is less intense. To achieve this is under capitalism the function of entrepreneurship that determines the allocation of capital to the various branches of production. Under socialism it would be a function of the state, the social apparatus of coercion and oppression. The problem of whether a socialist directorate, lacking any method of economic calculation, could fulfill this function is not to be dealt with in this essay.

There is a simple rule of thumb to tell entrepreneurs from non-entrepreneurs. The entrepreneurs are those on whom the incidence of losses on the capital employed falls. Amateur-economists may confuse profits with other kinds of intakes. But it is impossible to fail to recognize losses on the capital employed.

3. Non-Profit Conduct of Affairs

What has been called the democracy of the market manifests itself in the fact that profit-seeking business is unconditionally subject to the supremacy of the buying public.

Non-profit organizations are sovereign unto themselves. They are, within the limits drawn by the amount of capital at their disposal, in a position to defy the wishes of the public.

A special case is that of the conduct of government affairs, the administration of the social apparatus of coercion and oppression, viz. the police power. The objectives of government, the protection of the inviolability of the individuals' lives and health and of their efforts to improve the material conditions of their existence, are indispensable. They benefit all and are the necessary prerequisite of social cooperation and civilization. But they cannot be sold and bought in the way merchandise is sold and bought; they have therefore no price on the market. With regard to them there cannot be any economic calculation. The costs expended for their conduct cannot be confronted with a price received for the product. This state of affairs would make the officers entrusted with the administration of governmental activities irresponsible despots if they were not curbed by the budget system. Under this system the administrators are forced to comply with detailed instructions enjoined upon them by the sovereign, be it a self-appointed autocrat or the whole people acting through elected representatives. To the officers limited funds are assigned which they are bound to spend only for those purposes which the sovereign has ordered. Thus the management of public administration becomes bureaucratic, i.e., dependent on definite detailed rules and regulations.

Bureaucratic management is the only alternative available where there is no profit and loss management.¹

¹Cf. Ludwig von Mises, *Human Action: A Treatise on Economics* (New Haven, Conn.: Yale University Press, 1949), pp. 306–07; *Bureaucracy*, (New Haven, Conn.: Yale University Press, 1944), pp. 40–73.

4. The Ballot of the Market

The consumers by their buying and abstention from buying elect the entrepreneurs in a daily repeated plebiscite as it were. They determine who should own and who not, and how much each owner should own.

As is the case with all acts of choosing a person—choosing holders of public office, employees, friends, or a consort—the decisions of the consumers are made on the ground of experience and thus necessarily always refers to the past. There is no experience of the future. The ballot of the market elevates those who in the immediate past have best served the consumers. However, the choice is not unalterable and can daily be corrected. The elected who disappoints the electorate is speedily reduced to the ranks.

Each ballot of the consumers adds only a little to the elected man's sphere of action. To reach the upper levels of entrepreneurship he needs a great number of votes, repeated again and again over a long period of time, a protracted series of successful strokes. He must stand every day a new trial, must submit anew to reelection as it were.

It is the same with his heirs. They can retain their eminent position only by receiving again and again confirmation on the part of the public. Their office is revocable. If they retain it, it is not on account of the deserts of their predecessor, but on account of their own ability to employ the capital for the best possible satisfaction of the consumers.

The entrepreneurs are neither perfect nor good in any metaphysical sense. They owe their position

exclusively to the fact that they are better fit for the performance of the functions incumbent upon them than other people are. They earn profit not because they are clever in performing their tasks, but because they are more clever or less clumsy than other people are. They are not infallible and often blunder. But they are less liable to error and blunder less than other people do. Nobody has the right to take offense at the errors made by the entrepreneurs in the conduct of affairs and to stress the point that people would have been better supplied if the entrepreneurs had been more skillful and prescient. If the grumbler knew better, why did he not himself fill the gap and seize the opportunity to earn profits? It is easy indeed to display foresight after the event. In retrospect all fools become wise.

A popular chain of reasoning runs this way: The entrepreneur earns profit not only on account of the fact that other people were less successful than he in anticipating correctly the future state of the market. He himself contributed to the emergence of profit by not producing more of the article concerned; but for intentional restriction of output on his part, the supply of this article would have been so ample that the price would have dropped to a point at which no surplus of proceeds over costs of production expended would have emerged. This reasoning is at the bottom of the spurious doctrines of imperfect and monopolistic competition. It was resorted to a short time ago by the American Administration when it blamed the enterprises of the steel industry for the fact that the steel production capacity of the United States was not greater than it really was.

Certainly those engaged in the production of steel are not responsible for the fact that other people did not likewise enter this field of production. The reproach on the part of the authorities would have been sensible if they had conferred on the existing steel corporations the monopoly of steel production. But in the absence of such a privilege, the reprimand given to the operating mills is not more justified than it would be to censure the nation's poets and musicians for the fact that there are not more and better poets and musicians. If somebody is to blame for the fact that the number of people who joined the voluntary civilian defense organization is not larger, then it is not those who have already joined but only those who have not.

That the production of a commodity p is not larger than it really is, is due to the fact that the complementary factors of production required for an expansion were employed for the production of other commodities. To speak of an insufficiency of the supply of p is empty rhetoric if it does not indicate the various products m which were produced in too large quantities with the effect that their production appears now, i.e., after the event, as a waste of scarce factors of production. We may assume that the entrepreneurs who instead of producing additional quantities of p turned to the production of excessive amounts of m and consequently suffered losses, did not intentionally make their mistake.

Neither did the producers of p intentionally restrict the production of p . Every entrepreneur's capital is limited; he employs it for those projects which, he

expects, will, by filling the most urgent demand of the public, yield the highest profit.

An entrepreneur at whose disposal are 100 units of capital employs, for instance, 50 units for the production of p and 50 units for the production of q . If both lines are profitable, it is odd to blame him for not having employed more, e.g., 75 units, for the production of p . He could increase the production of p only by curtailing correspondingly the production of q . But with regard to q the same fault could be found by the grumblers. If one blames the entrepreneur for not having produced more p , one must blame him also for not having produced more q . This means: one blames the entrepreneur for the facts that there is a scarcity of the factors of production and that the earth is not a land of Cockaigne.

Perhaps the grumbler will object on the ground that he considers p a vital commodity, much more important than q , and that therefore the production of p should be expanded and that of q restricted. If this is really the meaning of his criticism, he is at variance with the valuations of the consumers. He throws off his mask and shows his dictatorial aspirations. Production should not be directed by the wishes of the public but by his own despotic discretion.

But if our entrepreneur's production of q involves a loss, it is obvious that his fault was poor foresight and not intentional.

Entrance into the ranks of the entrepreneurs in a market society, not sabotaged by the interference of government or other agencies resorting to violence, is open to everybody. Those who know how to take advantage of any business opportunity cropping up

will always find the capital required. For the market is always full of capitalists anxious to find the most promising employment for their funds and in search of the ingenious newcomers, in partnership with whom they could execute the most remunerative projects.

People often failed to realize this inherent feature of capitalism because they did not grasp the meaning and the effects of capital scarcity. The task of the entrepreneur is to select from the multitude of technologically feasible projects those which will satisfy the most urgent of the not yet satisfied needs of the public. Those projects for the execution of which the capital supply does not suffice must not be carried out. The market is always crammed with visionaries who want to float such impracticable and unworkable schemes. It is these dreamers who always complain about the blindness of the capitalists who are too stupid to look after their own interests. Of course, the investors often err in the choice of their investments. But these faults consist precisely in the fact that they preferred an unsuitable project to another that would have satisfied more urgent needs of the buying public.

People often err very lamentably in estimating the work of the creative genius. Only a minority of men are appreciative enough to attach the right value to the achievement of poets, artists, and thinkers. It may happen that the indifference of his contemporaries makes it impossible for a genius to accomplish what he would have accomplished if his fellow men had displayed better judgment. The way in which the poet laureate and the philosopher *à la mode* are selected is certainly questionable.

But it is impermissible to question the free market's choice of the entrepreneurs. The consumers' preference for definite articles may be open to condemnation from the point of view of a philosopher's judgment. But judgments of value are necessarily always personal and subjective. The consumer chooses what, as he thinks, satisfies him best. Nobody is called upon to determine what could make another man happier or less unhappy. The popularity of motor cars, television sets, and nylon stockings may be criticized from a "higher" point of view. But these are the things that people are asking for. They cast their ballots for those entrepreneurs who offer them this merchandise of the best quality at the cheapest price.

In choosing between various political parties and programs for the commonwealth's social and economic organization most people are uninformed and groping in the dark. The average voter lacks the insight to distinguish between policies suitable to attain the ends he is aiming at and those unsuitable. He is at a loss to examine the long chains of aprioristic reasoning which constitute the philosophy of a comprehensive social program. He may at best form some opinion about the short-run effects of the policies concerned. He is helpless in dealing with the long-run effects. The socialists and communists in principle often assert the infallibility of majority decisions. However, they belie their own words in criticizing parliamentary majorities rejecting their creed, and in denying to the people, under the one-party system, the opportunity to choose between different parties.

But in buying a commodity or abstaining from its purchase there is nothing else involved than the consumer's

longing for the best possible satisfaction of his instantaneous wishes. The consumer does not—like the voter in political voting—choose between different means whose effects appear only later. He chooses between things which immediately provide satisfaction. His decision is final.

An entrepreneur earns profit by serving the consumers, the people, as they are and not as they should be according to the fancies of some grumbler or potential dictator.

5. The Social Function of Profit and Loss

Profits are never normal. They appear only where there is a maladjustment, a divergence between actual production and production as it should be in order to utilize the available material and mental resources for the best possible satisfaction of the wishes of the public. They are the prize of those who remove this maladjustment; they disappear as soon as the maladjustment is entirely removed. In the imaginary construction of an evenly rotating economy there are no profits. There the sum of the prices of the complementary factors of production, due allowance being made for time preference, coincides with the price of the product.

The greater the preceding maladjustments, the greater the profit earned by their removal. Maladjustments may sometimes be called excessive. But it is inappropriate to apply the epithet “excessive” to profits.

People arrive at the idea of excessive profits by confronting the profit earned with the capital employed in the enterprise and measuring the profit as a percentage of the capital. This method is suggested by the customary procedure applied in partnerships and corporations for the assignment of quotas of the total profit to the individual partners and shareholders. These men have contributed to a different extent to the realization of the project and share in the profits and losses according to the extent of their contribution.

But it is not the capital employed that creates profits and losses. Capital does not “beget profit” as Marx thought. The capital goods as such are dead things that in themselves do not accomplish anything. If they are utilized according to a good idea, profit results. If they are utilized according to a mistaken idea, no profit or losses result. It is the entrepreneurial decision that creates either profit or loss. It is mental acts, the mind of the entrepreneur, from which profits ultimately originate. Profit is a product of the mind, of success in anticipating the future state of the market. It is a spiritual and intellectual phenomenon.

The absurdity of condemning any profits as excessive can easily be shown. An enterprise with a capital of the amount c produced a definite quantity of p which it sold at prices that brought a surplus of proceeds over costs of s and consequently a profit of n per cent. If the entrepreneur had been less capable, he would have needed a capital of $2c$ for the production of the same quantity of p . For the sake of argument we may even neglect the fact that this would have necessarily increased costs of production as it would have

doubled the interest on the capital employed, and we may assume that s would have remained unchanged. But at any rate s would have been confronted with $2c$ instead of c and thus the profit would have been only $n/2$ per cent of the capital employed. The “excessive” profit would have been reduced to a “fair” level. Why? Because the entrepreneur was less efficient and because his lack of efficiency deprived his fellow men of all the advantages they could have got if an amount c of capital goods had been left available for the production of other merchandise.

In branding profits as excessive and penalizing the efficient entrepreneurs by discriminatory taxation, people are injuring themselves. Taxing profits is tantamount to taxing success in best serving the public. The only goal of all production activities is to employ the factors of production in such a way that they render the highest possible output. The smaller the input required for the production of an article becomes, the more of the scarce factors of production are left for the production of other articles. But the better an entrepreneur succeeds in this regard, the more is he vilified and the more is he soaked by taxation. Increasing costs per unit of output, that is, waste, is praised as a virtue.

The most amazing manifestation of this complete failure to grasp the task of production and the nature and functions of profit and loss is shown in the popular superstition that profit is an addendum to the costs of production, the height of which depends uniquely on the discretion of the seller. It is this belief that guides governments in controlling prices. It is the same belief that has prompted many governments to

make arrangements with their contractors according to which the price to be paid for an article delivered is to equal costs of production expended by the seller increased by a definite percentage. The effect was that the purveyor got a surplus the higher, the less he succeeded in avoiding superfluous costs. Contracts of this type enhanced considerably the sums the United States had to expend in the two World Wars. But the bureaucrats, first of all the professors of economics who served in the various war agencies, boasted of their clever handling of the matter.

All people, entrepreneurs as well as non-entrepreneurs, look askance upon any profits earned by other people. Envy is a common weakness of men. People are loath to acknowledge the fact that they themselves could have earned profits if they had displayed the same foresight and judgment the successful businessman did. Their resentment is the more violent, the more they are subconsciously aware of this fact.

There would not be any profits but for the eagerness of the public to acquire the merchandise offered for sale by the successful entrepreneur. But the same people who scramble for these articles vilify the businessman and call his profit ill-got.

The semantic expression of this enviousness is the distinction between earned and unearned income. It permeates the textbooks, the language of the laws and administrative procedure. Thus, for instance, the official Form 201 for the New York State Income Tax Return calls "Earnings" only the compensation received by employees and, by implication, all other income, also that resulting from the exercise of a profession, unearned income. Such is the terminology of a state

whose governor is a Republican and whose state assembly has a Republican majority.

Public opinion condones profits only as far as they do not exceed the salary paid to an employee. All surplus is rejected as unfair. The objective of taxation is, under the ability-to-pay principle, to confiscate this surplus.

Now one of the main functions of profits is to shift the control of capital to those who know how to employ it in the best possible way for the satisfaction of the public. The more profits a man earns, the greater his wealth consequently becomes, the more influential does he become in the conduct of business affairs. Profit and loss are the instruments by means of which the consumers pass the direction of production activities into the hands of those who are best fit to serve them. Whatever is undertaken to curtail or to confiscate profits impairs this function. The result of such measures is to loosen the grip the consumers hold over the course of production. The economic machine becomes, from the point of view of the people, less efficient and less responsive.

The jealousy of the common man looks upon the profits of the entrepreneurs as if they were totally used for consumption. A part of them is, of course, consumed. But only those entrepreneurs attain wealth and influence in the realm of business who consume merely a fraction of their proceeds and plough back the much greater part into their enterprises. What makes small business develop into big business is not spending, but saving and capital accumulation.

6. Profit and Loss in the Progressing and in the Retrogressing Economy

We call a stationary economy an economy in which the per head quota of the income and wealth of the individuals remains unchanged. In such an economy what the consumers spend more for the purchase of some articles must be equal to what they spend less for other articles. The total amount of the profits earned by one part of the entrepreneurs equals the total amount of losses suffered by other entrepreneurs.

A surplus of the sum of all profits earned in the whole economy above the sum of all losses suffered emerges only in a progressing economy, that is in an economy in which the per head quota of capital increases. This increment is an effect of saving that adds new capital goods to the quantity already previously available. The increase of capital available creates maladjustments insofar as it brings about a discrepancy between the actual state of production and that state which the additional capital makes possible. Thanks to the emergence of additional capital, certain projects which hitherto could not be executed become feasible. In directing the new capital into those channels in which it satisfies the most urgent among the previously not satisfied wants of the consumers, the entrepreneurs earn profits which are not counterbalanced by the losses of other entrepreneurs.

The enrichment which the additional capital generates goes only in part to those who have created it by saving. The rest goes, by raising the marginal productivity of labor and thereby wage rates, to the earners of wages and salaries and, by raising the prices of

definite raw materials and food stuffs, to the owners of land, and, finally, to the entrepreneurs who integrate this new capital into the most economical production processes. But while the gain of the wage earners and of the landowners is permanent, the profits of the entrepreneurs disappear once this integration is accomplished. Profits of the entrepreneurs are, as has been mentioned already, a permanent phenomenon only on account of the fact that maladjustments appear daily anew by the elimination of which profits are earned.

Let us for the sake of argument resort to the concept of national income as employed in popular economics. Then it is obvious that in a stationary economy no part of the national income goes into profits. Only in a progressing economy is there a surplus of total profits over total losses. The popular belief that profits are a deduction from the income of workers and consumers is entirely fallacious. If we want to apply the term deduction to the issue, we have to say that this surplus of profits over losses as well as the increments of the wage earners and the landowners is deducted from the gains of those whose saving brought about the additional capital. It is their saving that is the vehicle of economic improvement, that makes the employment of technological innovations possible and raises productivity and the standard of living. It is the entrepreneurs whose activity takes care of the most economical employment of the additional capital. As far as they themselves do not save, neither the workers nor the landowners contribute anything to the emergence of the circumstances which generate what is called economic progress and improvement. They are benefited by other peoples' saving

that creates additional capital on the one hand and by the entrepreneurial action that directs this additional capital toward the satisfaction of the most urgent wants on the other hand. A retrogressing economy is an economy in which the per head quota of capital invested is decreasing. In such an economy the total amount of losses incurred by entrepreneurs exceeds the total amount of profits earned by other entrepreneurs.

7. The Computation of Profit and Loss

The originary praxeological categories of profit and loss are psychic qualities and not reducible to any interpersonal description in quantitative terms. They are intensive magnitudes. The difference between the value of the end attained and that of the means applied for its attainment is profit if it is positive and loss if it is negative.

Where there are social division of efforts and cooperation as well as private ownership of the means of production, economic calculation in terms of monetary units becomes feasible and necessary. Profit and loss are computable as social phenomena. The psychic phenomena of profit and loss, from which they are ultimately derived, remain, of course, incalculable intensive magnitudes.

The fact that in the frame of the market economy entrepreneurial profit and loss are determined by arithmetical operations has misled many people. They fail to see that essential items that enter into this calculation are estimates emanating from the entrepreneur's

specific understanding of the future state of the market. They think that these computations are open to examination and verification or alteration on the part of a disinterested expert. They ignore the fact that such computations are as a rule an inherent part of the entrepreneur's speculative anticipation of uncertain future conditions.

For the task of this essay it suffices to refer to one of the problems of cost accounting. One of the items of a bill of costs is the establishment of the difference between the price paid for the acquisition of what is commonly called durable production equipment and its present value. This present value is the money equivalent of the contribution this equipment will make to future earnings. There is no certainty about the future state of the market and about the height of these earnings. They can only be determined by a speculative anticipation on the part of the entrepreneur. It is preposterous to call in an expert and to substitute his arbitrary judgment for that of the entrepreneur. The expert is objective insofar as he is not affected by an error made. But the entrepreneur exposes his own material well-being.

Of course, the law determines magnitudes which it calls profit and loss. But these magnitudes are not identical with the economic concepts of profit and loss and must not be confused with them. If a tax law calls a magnitude profit, it in effect determines the height of taxes due. It calls this magnitude profit because it wants to justify its tax policy in the eyes of the public. It would be more correct for the legislator to omit the term profit and simply to speak of the basis for the computation of the tax due.

The tendency of the tax laws is to compute what they call profit as high as possible in order to increase immediate public revenue. But there are other laws which are committed to the tendency to restrict the magnitude they call profit. The commercial codes of many nations were and are guided by the endeavor to protect the rights of creditors. They aimed at restricting what they called profit in order to prevent the entrepreneur from withdrawing to the prejudice of creditors too much from the firm or corporation for his own benefit. It was these tendencies which were operative in the evolution of the commercial usages concerning the customary height of depreciation quotas.

There is no need today to dwell upon the problem of the falsification of economic calculation under inflationary conditions. All people begin to comprehend the phenomenon of illusory profits, the offshoot of the great inflations of our age.

Failure to grasp the effects of inflation upon the customary methods of computing profits originated the modern concept of *profiteering*. An entrepreneur is dubbed a profiteer if his profit and loss statement, calculated in terms of a currency subject to a rapidly progressing inflation, shows profits which other people deem "excessive." It has happened very often in many countries that the profit and loss statement of such a profiteer, when calculated in terms of a noninflated or less inflated currency, showed not only no profit at all but considerable losses.

Even if we neglect for the sake of argument any reference to the phenomenon of merely inflation-induced illusory profits, it is obvious that the epithet profiteer is the expression of an arbitrary judgment of

value. There is no other standard available for the distinction between profiteering and earning fair profits than that provided by the censor's personal envy and resentment.

It is strange indeed that an eminent logician, the late L. Susan Stebbing, entirely failed to perceive the issue involved. Professor Stebbing equated the concept of profiteering to concepts which refer to a clear distinction of such a nature that no sharp line can be drawn between extremes. The distinction between excess profits or profiteering, and "legitimate profits," she declared, is clear, although it is not a sharp distinction.² Now this distinction is clear only in reference to an act of legislation that defines the term excess profits as used in its context. But this is not what Stebbing had in mind. She explicitly emphasized that such legal definitions are made "in an arbitrary manner for the practical purposes of administration." She used the term *legitimate* without any reference to legal statutes and their definitions. But is it permissible to employ the term legitimate without reference to any standard from the point of view of which the thing in question is to be considered as legitimate? And is there any other standard available for the distinction between profiteering and legitimate profits than one provided by personal judgments of value?

Professor Stebbing referred to the famous *acervus* and *calvus* arguments of the old logicians. Many words are vague insofar as they apply to characteristics which

²Cf. L. Susan Stebbing, *Thinking to Some Purpose* (New York: Pelican Books, 1939), pp. 185–87.

may be possessed in varying degrees. It is impossible to draw a sharp line between those who are bald and those who are not. It is impossible to define precisely the concept of baldness. But what Professor Stebbing failed to notice is that the characteristic according to which people distinguish between those who are bald and those who are not is open to a precise definition. It is the presence or the absence of hair on the head of a person. This is a clear and unambiguous mark of which the presence or absence is to be established by observation and to be expressed by propositions about existence. What is vague is merely the determination of the point at which non-baldness turns into baldness. People may disagree with regard to the determination of this point. But their disagreements refer to the interpretation of the convention that attaches a certain meaning to the word baldness. No judgments of value are implied. It may, of course, happen that the difference of opinion is in a concrete case caused by bias. But this is another thing.

The vagueness of words like bald is the same that is inherent in the indefinite numerals and pronouns. Language needs such terms, as for many purposes of daily communication between men, an exact arithmetical establishment of quantities is superfluous and too bothersome. Logicians are badly mistaken in attempting to attach to such words, whose vagueness is intentional and serves definite purposes, the precision of the definite numerals. For an individual who plans to visit Seattle the information that there are many hotels in this city is sufficient. A committee that plans to hold a convention in Seattle needs precise information about the number of hotel beds available.

Professor Stebbing's error consisted in the confusion of existential propositions with judgments of value. Her unfamiliarity with the problems of economics, which all her otherwise valuable writings display, led her astray. She would not have made such a blunder in a field that was better known to her. She would not have declared that there is a clear distinction between an author's "legitimate royalties" and "illegitimate royalties." She would have comprehended that the height of the royalties depends on the public's appreciation of a book and that an observer who criticizes the height of royalties merely expresses his personal judgment of value.

7

From an Evenly Rotating Economy to the Real World

In an evenly rotating economy, the problem of resource allocation would be easily solved. Knowledge of future preferences, resources, and techniques of production would be the result of a world without change. Equipped with this knowledge, market participants would be able to devote resources to their most satisfying lines of use without friction and inconsistent planning. Units of factors of production would be priced equal to their discounted marginal value product, thereby permitting investor-producers to earn only an interest return. Units of factors would be repeatedly employed in the same fashion as in the past, since to change particular usages would require the creation of a lower marginal value product, an inferior result that could be anticipated in advance and obviated. The known money values of future products would indicate the money values of resources to be used in their creation.

However, everyone knows that the real world is not a world of mere constants and perfect predictability. There is really no assurance about tomorrow. The tastes and value scales of individuals do not remain constant, and neither can anyone assume that the nature and amount of available resources will remain the same. And with time comes continuous revision in the recipes and techniques of production. Thus in the real world there is no simple and automatic solution to the task of resource allocation. Because of the ever-present factor of uncertainty, no

actor “knows” the future; each can only attempt to forecast it in terms of his own understanding of the potentiality of the present.

Nevertheless, the concept of the ERE is useful in explaining and understanding the real world of change. In the midst of continuous change, the market is relentlessly in pursuit of a general equilibrium in which all productive factors are being applied to their most desired uses and all profits and losses have disappeared. In other words, the tendency of the real market is always moving toward an evenly rotating economy. It is the factor of change that prevents that economy from ever being reached. With the conditions and data of the market being subject to constant change, revisions and adjustments in plans and actions are continually necessitated.

The concept of an ERE helps one to imagine a world in which changes in tastes, resources, and technology have ceased. More importantly, it yields an understanding of the direction that the market is continually taking as errors emanating from the imperfect knowledge of the future give rise to revised plans and actions on the part of market participants. For example, when producers underestimate the demand for a particular good, the resulting higher price of the good attracts more resources to that use and away from less important uses. As more attention is given to the production of this good, its unit price falls and the unit price of its resources rises, gradually eliminating the opportunity to profit from its production.

This is a process of adjusting to facts of the market that were not knowable in advance. Through this adjusting process, the market continually strives to reach the state of the ERE; the problem is that this quest is constantly interrupted and sidetracked as a result of subsequent change and its complement, the need for additional adjustment. It should be clear that the imaginary ERE is not being held up as some kind of ideal economy. Its purpose is only to help explain the workings of the real market economy. The contrast between the real world and the ERE is described by Rothbard:

The difference in the dynamic, real world is this. None of these future values or events is known; all must be esti-

mated, guessed at, by the capitalists. They must advance present money in a speculation upon the unknown future in the expectation that the future product will be sold at a remunerative price. In the real world, then, quality of judgment and accuracy of forecast play an enormous role in the incomes acquired by capitalists. As a result of the arbitrage of the entrepreneurs, the tendency is always toward the ERE; in consequence of ever-changing reality, changes in value scales and resources, the ERE never arrives.¹

This whole matter of the constant changeability of market conditions is the essence of the concept of uncertainty, as distinguished earlier from the concept of quantifiable risk. The key to this distinction is that the interrelationship of events and factors in the competitive market is so complex that it precludes the precise calculation of probability of the success or failure of any given entrepreneurial decision. Market conditions at any instant are comparatively unique; they do not lend themselves to the gathering of extensive empirical data that can be said to relate to homogeneous circumstances and events. Accurate anticipations of consumer preferences, competitor actions, technological change, and resource availabilities are far more difficult to make than typical actuarial predictions.

Actuarial predictions deal with matters that have an extensive history, are subject to detailed classification, and occurred under conditions that can be expected to remain for the most part unchanged for the time being. Businessmen, however, do not have the fortune of operating under many of these repetitive sequences of highly categorized events. As Knight has said the problem stems from the inability to accumulate sufficient empirical data relating to particular classes of subjects and events. As Hayek has put it, "In the social sciences we have to deal with . . . phenomena which are not made up of sufficiently large numbers of similar events to enable us to ascertain the probabilities of their occurrence."²

1. Rothbard, *Man, Economy, and State*, p. 464.

2. F. A. Hayek, "Coping with Ignorance," *Imprimis* 7, no. 7, (1978).

All of this is not to say that businessmen have absolutely no sense of what future developments are likely to be. They do make judgments and predictions about the future. But the point is that these anticipations are speculative and not mathematically precise. It is not that there are *no* indications concerning the future; it is that there is grossly incomplete knowledge of future developments. The following statements by Knight are pertinent:

It is a world of change in which we live, and a world of uncertainty. We live only by knowing *something* about the future; while the problems of life, or of conduct at least, arise from the fact that we know so little. This is as true of business as of other spheres of activity. The essence of the situation is action according to *opinion*, of greater or less foundation and value, neither entire ignorance nor complete and perfect information, but partial knowledge.³

Entrepreneurial Profits and Losses

Profit theory has often explained the emergence of money profits in the market economy either as a reward for taking risks or as the natural income earned by capital (as opposed to the rents of land and wages of labor) in the classical sense. Both of these analyses are incorrect. In the competitive market, all business activity is risky in the sense of being uncertain; yet not every business venture is monetarily profitable. A businessman who makes too many mistakes is not automatically rewarded with profits simply because he undertook ventures of a risky nature. Profits cannot be called simply a reward for risk-taking. The classical thesis that profits are the return peculiar to the category of capital or capital goods is an empty explanation because it fails to show just why something extra should arise from the usage of capital and not from the usage of the other factors of land and labor. At times this theory borders on a sort

3. Knight, *Risk, Uncertainty, and Profit*, p. 199.

of normal interest theory, but it lacks the principle of time-preference and is mistaken in tying interest only to capital goods. As has been shown, the phenomenon of interest is present in all matters involving the exchange of present goods for future goods.

Profits which are nonexistent in the evenly rotating economy are received by those entrepreneur-producers who most correctly anticipate the wishes of the consumers. Profits arise when productive factors are bought for prices lower than the prices for which their products are sold. In a world of uncertainty, the producers have to judge what the marginal value product will be for units of productive factors. Those who are able to discern discrepancies between current resource prices and the future prices of their products generate money revenues in excess of money costs by capitalizing on such opportunities. In such cases the resources can be said to have been underpriced. The ultimate prices of consumer goods are determined by the subjective valuations placed by consumers on the goods offered for sale. Thus the crucial task of the entrepreneur-producer in purchasing various units of resources is to anticipate as correctly as possible the future preferences of consumers. Using such anticipations, he is able to impute an anticipated marginal value product to the available factors of production.

Profits result if others have failed to value the particular factor units as highly and if it turns out that the entrepreneur-producer was reasonably correct in his anticipations. On the other hand, losses result whenever he acquires resources at amounts greater than the money value of the products generated from such resources. In these cases the resources can be said to be overpriced for the purposes to which they were put. Since there is no certainty about the future, there is room in the market economy for entrepreneurial losses as well as profits. Profits, then, do arise in connection with risk-taking but only when the anticipations turn out to be correct.

A theory of profits should also include a corollary explanation of losses. The principal determinant of business success is the foresight and alertness of those in charge of directing the

business. Mises has explained the source of money profits in the following way:

The ultimate source from which entrepreneurial profit and loss are derived is the uncertainty of the future constellation of demand and supply.

If all entrepreneurs were to anticipate correctly the future state of the market, there would be neither profits nor losses. The prices of all the factors of production would already today be fully adjusted to tomorrow's prices of products. In buying the factors of production the entrepreneur would have to expend (with due allowance for the difference between the prices of present goods and future goods) no less an amount than the buyers will pay him later for the product. An entrepreneur can make a profit only if he anticipates future conditions more correctly than other entrepreneurs. Then he buys the complementary factors of production at prices the sum of which, including allowance for the time difference, is smaller than the price at which he sells the product.⁴

It should be realized that the phenomenon of entrepreneurial profits and losses continues to occur only because there are persistent changes in market conditions. This is what was meant when it was earlier stated that the concept of the evenly rotating economy provides an understanding of the goal toward which the market continuously moves but never reaches. If new changes in market data were not to constantly occur, the prices of all complementary resources would be finally set so that total money costs would equal total money revenues and there would be nothing left for profits and losses. There is an inherent tendency for profits and losses to disappear as entrepreneurs make adjustments in their plans, moving into profitable lines and away from unprofitable ones. It is the recurrence of change and discovery in market conditions that precludes the permanent and complete elimination of profits and losses.

4. Mises, *Human Action*, pp. 293-94.

Consumer Valuations and Productive Resources

It has already been shown that the subjective valuations of consumers are the principal determinant in establishing prices of consumer goods. And the vital connection between the prices of consumer goods and the prices of factors of production was demonstrated in describing the conditions of the evenly rotating economy. In the ERE the prices of resources are derived from the money value of the product created. This essential relationship between the prices of final and intermediate goods and services is no less applicable in the dynamic market economy. Just as in the ERE, entrepreneurs bid for units of resources in the real market in light of their expected marginal value product. Prices of consumer goods are not set by simply adding up the money costs of production. The value scales of consumers determine the prices of produced consumer goods, and it is these expected prices of consumer goods that provide the basis for entrepreneurial bidding for units of scarce resources that are utilized in the generation of consumer goods. The process is the same as it would be in the ERE, except that in the real world product value cannot be imputed to the means of production with certainty.

The entrepreneur-producer's failure to see that the prices of productive resources arise from the expected price of his product occurs because he sees his costs as being externally determined and simply given. His problem, as he sees it, is to place available resources in productive uses that will yield revenues sufficiently in excess of these costs. But if the broader view that the economist takes is considered, one realizes that the prices of resources, or costs, stem from widespread bidding by countless participants since most factors can be employed in a wide variety of productive uses. Underlying all of this bidding are the anticipated marginal value products as envisioned by the various producers. For a highly nonspecific factor of production, the unit price that any given producer pays reflects the expected marginal value product of that factor in alternative uses, the culmination of bidding on the part of innumerable and diverse firms. The acceptance of a "given" price by the individual entre-

preneur-producer actually contributes another bid to the market process.

The derivation of prices of highly specialized factors from the expected value of their product is even more obvious. The price of this type of resource is actually far more sensitive to changes in the price of its product than is the price of a highly versatile resource to changes in the price of any *particular* product for which it is being used because the economic fate of the versatile factor is not so dependent upon how well any particular product fares economically. The gradations of its value in alternative uses entail much narrower gaps than does a specific resource whose value in some other use by definition approaches zero. One only needs to consider the predicament of the owner of cigarette machines if the demand for cigarettes were to significantly diminish or increase to grasp the relationship between product prices and the prices of specific resources.

The producer who sells his product to other producers rather than the ultimate consumer does not escape the influence of consumer valuations on the price of his product. The producer who purchases his product to be used further in the production process or to be sold to other producers or ultimate consumers will see the product in terms of what he in turn can sell the good or its product for. The influence of consumer valuations is pervasive regardless of the number of stages through which the resources pass before their culmination in the final consumer good. At some final level, producers who sell directly to consumers must directly impute dollar values expressive of consumer preferences to the resources and services purchased. It is this front line of producers who set the imputation of consumer prices to resource prices in motion, and this imputative relationship permeates every prior stage of the production process. No seller of producer goods and services can long stay in a particular line of business if the ultimate consumer good into whose production his product or service enters has grown unpopular, regardless of how many stages or levels removed from the final product his contribution is.

Sellers of producer goods and services may well be able to concern themselves only with the expected prices to be paid by

their own customers, and not trouble themselves with the prices that will eventually be paid by customers. Yet it cannot be ignored long that these immediate prices mirror over time the anticipated final prices, and this fact becomes more apparent the further one moves along the production process toward product completion. The closer to completion the intermediate goods become, the more specific they are and the closer the tie between them and the ultimate consumer good. For example, iron is more convertible than iron tubes, and iron tubes are more convertible than iron machine parts. In a modern economy the advent of intricate capital goods creates a serious issue of convertibility in a market environment of changing conditions. Less advanced times were characterized by far more flexible, though less productive, means of production. Mises has explained this dominant role of the consumers in the economic process of the market economy:

The consumers determine ultimately not only the prices of the consumers' goods, but no less the prices of all factors of production. They determine the income of every member of the market economy. . . . The competition between the entrepreneurs reflects the prices of consumers' goods in the formation of the factors of production. . . . It makes effective the subsumed decisions of the consumers as to what purpose the non-specific factors should be used for and to what extent the specific factors of production should be used.⁵

Of course, in the midst of the uncertainty and extremely long channels of production that characterize the modern market economy, there is plenty of room for error in pricing based on expected consumer preferences and product prices. As noted earlier, those who make too many mistakes are penalized by financial loss, and those who are more correct in their anticipations reap financial profits. Changes in market conditions are

5. Mises, *Human Action*, p. 271.

particularly harsh for the owners of capital goods that are not easily convertible to other uses. The owner of cigarette machines could be ruined if there were a widespread fall in the demand for cigarettes.

At any given moment capital goods are appraised exclusively from the point of view of their future usefulness. This potential usefulness is not merely a matter of technological usefulness but embraces the monetary significance of the item's anticipated product. Thus a relatively new machine can be rendered obsolete and virtually worthless as a result of changes in market data. The entrepreneur does not appraise his complex of productive factors from the standpoint of how much he expended for them in the past. As Jevons said, "In commerce bygones are forever bygones Industry is essentially prospective, not retrospective." This is the essential meaning of the concept of "sunk costs." Mises cogently makes the same point: "Errors committed in the past in the production of capital goods available today do not burden the buyer; their incidence falls entirely on the seller. In this sense the entrepreneur who proceeds to buy against money capital goods for future production crosses out the past."⁶

It can then be seen that nonspecific resources like raw iron and labor can be used to produce a specialized machine whose product is no longer important to the consuming public. This means that the money value of the machine would bear no relationship to the money costs of the versatile inputs whose usefulness has been dissipated in the conversion process. In retrospect, it would have been better had the versatile resource units been devoted to more desirable conversions. But such mistakes are likely to occur in the absence of perfect knowledge of the future.

The Consequences of the Past

Although all action is oriented to the future, one must not overlook the influence of the past on production. The fact that

6. *Ibid.*, p. 505.

changes in market conditions render an inconvertible capital is necessarily economically feasible to abandon the inferior good and shift to the superior one. One is certainly justified in saying that in retrospect committing resources to a form that eventually becomes inferior is economically wasteful. The entry of the asset on the owner's books would show this economic loss. It may be, however, that the inferior machine can still be used in competition with the superior one. Whether the inferior machine should remain in use or be abandoned for the more modern one depends on how well the latter performs.

The decision hinges on the net revenues that can be expected from each alternative from the present moment on. The additional cost of implementing the technologically superior machine may be too great to warrant the shift. The inferior machine is already in existence and its original cost is thus no longer relevant. On the other hand, the cost of the superior machine is still relevant because no decision on it has been made and no money has been committed for its acquisition. If the net revenues expected from continued use of the inferior machine are greater than that expected from alternative uses (including scrapping), then this continued use is economical.

The complaint that things would be better if the inferior machine had never been provided serves no purpose now. The task is to make the best of things as they now exist. This is what Mises means when he says, "History and the past have their say."⁷

The influence of the past has the same application to the question of advantageous and disadvantageous locations of inconvertible capital goods. Changes in market conditions can result in a plant's location becoming less desirable than some other place of operation, but costs of relocating can prohibit a shift in spite of the desirability of the new location.

Unrestricted and Restricted Markets

The economic analysis in this book deals primarily with a market economy in which there exist comparatively few artifi-

7. Ludwig von Mises, *Epistemological Problems of Economics* (Princeton: Van Nostrand Co., Inc., 1960), p. 220.

cial restrictions on the economic activities of its members. It is this relatively unhampered market that tends to direct resources so that, as Mises says, "No want more urgently felt should remain unsatisfied because the means suitable for its attainment were employed—wasted—for the attainment of a want less urgently felt." The importance of the subjective valuations of producers and consumers has been emphasized already. The unhampered market recognizes the wants of every individual, regardless of his function as a buyer or seller. (Actually, each able person performs both roles in the market economy.)

The significant point here is that although the wants of the consumers are preeminent regarding the goods and services offered for sale in the market, the ultimate decision to choose between the monetary reward of the market and the advantages of other pursuits is left up to each individual. Employees and investors act on the basis of nonmonetary as well as monetary factors. The sovereignty of the consumers is not unlimited.

It should be clear, however, that artificial restrictions that are granted to some producers and denied to others can be and have been superimposed on the otherwise unhampered market. As a result, restrictions like monopoly rights, patents, and copyrights emerge on the market as economic factors in the same way that other resources gain economic significance. The process of monetary calculation results in the association of economic value with each factor to the extent of its expected contribution to money revenues, which means that market prices can exist for such restrictive factors as transferable franchises, patents, and copyrights. The pricing of such restrictive factors is thus no different from the pricing of resource factors that are not artificially created.⁸

8. The issue of "monopolistic" restrictions evolving from market forces as opposed to governmental interventions has been widely treated in the economic literature. That these lucrative positions enjoyed by certain market participants can be seen as results of entrepreneurial alertness and anticipation is well argued by Kirzner in his *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

The Social Role of Profits

The objective of entrepreneurial activity in the market economy is to capitalize on opportunities to invest in factors of production at costs that are adequately lower than the revenues subsequently generated by productive activities. Those who are able to achieve this objective successfully receive money profits. The important result of profitable business operations is that resources are thereby diverted away from less desirable uses into uses that better suit the wishes of consumers. Profits, then, serve a vital social purpose. In a changing world there is always an opportunity to improve the way things are done. Improvements may take the form of more satisfying products and services or more efficient ways of generating presently preferred products and services.

So long as the ways of doing things are not frozen and people are not barred from pursuing improvements, profits will always occur and be a necessary part of the market economy. Only in the imaginary and static economy of the ERE are all opportunities for improvement in resource utilization exhausted. It is clear that changes in either preferences, resources, or technology call for rearrangements in the employment of available resources.

The emergence of discrepancies between product prices and the prices of the complementary factors of production signals to market participants that adjustments are in order. Profitable discrepancies attract increased assignment of resources to those particular lines of application; this extension is accompanied by higher unit prices of resources used and lower unit prices of those particular products. Over time the price discrepancies are eliminated in those particular lines; profits for those businesses disappear, at least until new discrepancies are discovered or created.

The superior foresight of the successful entrepreneur-producer does not benefit him permanently because others follow his example and lower his profits.⁹ If the difference between

9. This statement is true except for the rare and unlikely situation of complete ownership of a critical resource by a single entrepreneur-producer who is thereby insulated from competition from others. See Kirzner, *Competition and Entrepreneurship*. Both the total ownership by one owner and the nonsubstitutability of other resources required in this situation are extremely unlikely occurrences.

total money costs and total money revenues goes the opposite way and financial losses instead of profits are the result, adjustments are made in the other direction. Relevant factors of production are reshuffled into other employments until losses in the original lines of business are terminated and profit prospects restored. The occurrence of financial losses shows that resources would be better used elsewhere, that they have been put to uses that are inferior to alternative lines of employment as represented by their prevailing market prices.

It is the ceaseless search on the part of entrepreneurs for profitable opportunities that leads to the allocation of scarce resources to their most desirable productive usages. Along the way, they wipe out the discrepancies between resource values and product values and thereby remove market inconsistencies. Discrepancies between factor and product money values simultaneously expose existing misallocations of resources and promote corrective action in providing profit opportunities. It is thus important to realize, as Kirzner has pointed out, that "the entrepreneurial search for profits implies a *search for situations where resources are misallocated*."¹⁰ The crucial role of the entrepreneur, hence of profits, in the market economy is of utmost significance.

For it is impossible to eliminate the entrepreneur from the picture of the market economy. The various complementary factors of production cannot come together spontaneously. They need to be combined by the purposive efforts of men aiming at certain ends and motivated by the urge to improve their state of satisfaction. In eliminating the entrepreneur one eliminates the driving force of the whole market system.¹¹

Although there would be neither entrepreneurs nor entrepreneurial profits in an ERE, it has been shown that there

10. Israel M. Kirzner, *Market Theory and the Price System* (Princeton: D. Van Nostrand Co., Inc., 1963), p. 303.

11. Mises, *Human Action*, pp. 248, 249.

would exist an interest income for the producers who invest present money for future money. In the real world of change and profits, the time-preference principle is no less operative. This means that conceptually there can be recognized the phenomenon of interest in the market economy. However, because of the factor of uncertainty, each investment of present money is faced with the possibility of failure and loss. Consequently, the so-called rate of interest actually constitutes a combination of time and uncertainty factors that are intertwined to give a single rate. The distinction can be made only conceptually as the factor of uncertainty surrounds every instance of investment. The perception of varying degrees of uncertainty accounts for the structure of varying so-called rates of interest.

At the outset of this overview of the Austrian analysis of the market economy, it was stressed that in an economy of exchange, advanced and developed through specialization and the division of labor, two absolutely essential requirements must be satisfied. The first was the need for a common basis for calculating the relative merits of alternative resource employments. Calculations in kind were seen to be insufficient for the rational allocation of scarce resource in an advanced economy. This requirement calls for some medium through which the preferences of the members of the society, its consumers, could be expressed to and discerned by the employers of the productive resources. The second was the need for a means by which the decisions and actions of scattered and separate actors can be coordinated. It was concluded that both of these requirements are met by the use of a common means of exchange and its counterpart, money prices. Economic calculation, predicated upon a system of market prices, emerges as the indispensable means of effective resource employment.

It can now be seen that through the economic calculations of entrepreneur-producers, there is a rational process of factor utilization. These calculations are developed with the guidance of past market prices and money results and through projected market prices and monetary results relating to various resources and final products. The advent of change in market conditions

is reflected in certain price changes that signal for different courses of action to be taken to enhance the effectiveness of resource employment. Without the system of money prices and the ability to calculate expected results of various actions in terms that afford comparisons, there would be no way rationally to plan production activities on a scale characteristic of an advanced economy.

Efficient resource utilization necessitates some means by which prospective alternative lines of use can be related as well as possible to each prospective result of product. Although it is tenuous and imprecise, monetary calculation provides this means. And although erroneous calculations can be made because of poor judgment, resulting in the misallocation of resources, they can be quickly rectified by the financial loss revealed in retrospective calculation.

It bears repeating that monetary calculation is not concerned with the measurement of value. The task of resource allocation can be accomplished if calculations afford guidance to the relative importance of various uses and products. Monetary profits and losses indicate the more desirable and the less desirable applications of units of scarce resources. Although it is prospective monetary calculation that is primary, retrospective calculations of profit and loss are important both instructionally and in guiding decisions about capital maintenance and capital consumption. The concepts of capital and income, profit and loss, revenues and costs, provide the rational basis for resource allocations in the market economy. The allocation process is thereby purposive and not haphazard.

Suggested Readings

Kirzner, Israel M. *Competition and Entrepreneurship*. Chicago: University of Chicago Press, 1973.

_____. *Market Theory and the Price System*, pp. 297-309.

Mises, Ludwig von. *Human Action: A Treatise on Economics*. pp. 289-326.

Rothbard, Murray N. *Man, Economy, and State: A Treatise on Economic Principles*, pp. 463-559.

Mises Daily

A Critique of Neoclassical and Austrian Monopoly Theory

Tags: [Austrian Economics Overview](#), [Monopoly and Competition](#), [Other Schools of Thought](#)

06/25/2022 • [Mises Daily](#) • Dominick Armentano

One of the most controversial areas in Austrian economics, and one where even long-established Austrian theorists differ sharply, is monopoly theory. Indeed, as we shall see below, the differences are not merely semantic, nor are they confined to detail or some minor theoretical implication. Rather, there are major and fundamental disagreements between some of the leading Austrians, and these disagreements are created by wholly different theories concerning the *definition* of monopoly, the *origins* of monopoly, and the supposed *effects* of monopoly on consumer sovereignty and efficient resource allocation.

NEOCLASSICAL MONOPOLY THEORY

By way of contrast, and in order to place the Austrian theories of monopoly in perspective, it is perhaps necessary to review and criticize the traditional (neoclassical) theory of monopoly.¹

A monopolist in neoclassical analysis is a firm that faces the entire demand for the product under consideration. In order to maximize its profits, it produces an output where the marginal revenue associated with the last unit sold is just equal to the marginal costs associated with producing and selling that final unit. But since the demand function facing the monopolist is necessarily sloped downward (perhaps even steeply downward), the price charged for the output is *greater* than both marginal revenue and marginal cost.

This situation, it is argued, compares “unfavorably” with price and output (and cost) under competitive conditions. Under competitive conditions, since price and marginal revenue are equal, price is always identical with marginal cost when profits are maximized. Further, under competitive equilibrium conditions, price is always driven down to the minimum point of the average cost function, so that production tends to take place at its most “efficient” point. Therefore, monopoly prices are higher than competitive prices, outputs are less, and average costs greater than under comparable competitive (cost) conditions.

But, importantly, how is a firm able to *obtain* a monopoly position in the market and, thus, “misallocate” economic resources? In the first place the monopoly could simply be due to governmental prohibition of competitive entry, and there is certainly a recognition of this source of monopoly in the neoclassical literature. However, more recently it has been popular to stress certain *non-legal* “barriers to entry” that, allegedly, preserve monopoly and resource misallocation.² These barriers would include *any* difficulty or impediment that a new firm might have to overcome in order to compete successfully with an existing firm (monopolist). Thus, scale economies enjoyed by an existing firm, or commercially successful product differentiation employed by such a firm, becomes, in the new jargon, a barrier to entry that limits competition and reduces society’s “welfare.”

CONTEMPORARY MONOPOLY THEORY: A CRITIQUE

There are two avenues of criticism that one might take with respect to neoclassical monopoly theory. In the first place, one might criticize the purely competitive model which is employed as a benchmark and as a basis of comparison with monopolistic situations. And secondly, one might criticize the whole concept of non-legal barriers to entry, arguing, instead, that it is simply *consumer preference* that “limits competition” and that, consequently no misallocation of resources occurs.

Most economists would agree that pure competition is not actually possible. Some would agree, perhaps reluctantly, that it might not even be desirable or optimal if it *could* exist. (If they agree to this, of course, then they must also agree that moving toward pure competition is not necessarily desirable, either.) But few economists have noticed or emphasized the *fundamental* flaw of the purely competitive model, namely, that it is not a description of competition at all.³ Pure competition is a static, equilibrium condition whose very assumptions are such that competitive process is ruled out by definition. Or to put the matter more charitably, while pure competition may describe the final outcome of a particular competitive situation, the ultimate end result, it does not describe the competitive process that produced that particular outcome. The purely competitive theory is *not* a theory of competition as such.

The neoclassical habit of confusing competitive process with a final, static equilibrium condition makes for gross errors in economic analysis. For instance, product differentiation, advertising, price competition (including price discrimination), and innovation are rather routinely condemned as “monopolistic” and, thus, as resource *misallocating* and socially undesirable. This condemnation follows “logically” since not one of these activities is possible under purely competitive conditions. Hence everything that is truly competitive in the real world, truly rivalrous, gets labeled as “monopolistic” and resource misallocating in the Alice-in-Wonderland, purely competitive world. The analytical conclusions one is forced to come to, employing the purely competitive perspective, are not just wrong, not just unrealistic, but the very

opposite of the truth. Far from being able to “predict,” or, tell us anything meaningful concerning competitive behavior, pure competition can only describe what things would be like if the world contained zombie-like consumers with homogeneous tastes, atomistically structured firms identical in every important respect, with no locational advantages, no advertising, no entrepreneurship, and no rivalry whatever. Surely this is the major flaw and absurdity inherent in the purely competitive perspective.⁴

BARRIERS TO ENTRY: A CRITIQUE

Discussions about the non-legal barriers to entry suffer from the same difficulties. The two most popular and important “barriers to entry” are *product differentiation* and *scale economies*. Product differentiation limits competition since it makes competitive entry more costly. To use a favorite neoclassical example, the fact that the major automobile companies change styles every year increases the costs of competing in this industry. Would-be competitors must be willing and able to undergo the same or similar procedures, else they simply cannot compete. Even worse, once competition is “limited,” the auto companies routinely pass along the higher costs in the form of higher prices, which contribute, it is alleged, to a real reduction in consumer welfare.

On the other hand—indeed, on the opposite hand—scale economies also limit competition. The fact that certain firms realize lower costs per unit because of large volumes gives these firms the “power” to exclude smaller firms, or smaller potential entrants, from the market. Ergo, we are supposed to regret the reduced competition and consequent resource misallocation since inefficient firms cannot compete with efficient ones.

Actually, of course, the neoclassical theorists have gotten the matter completely and precisely *backward*. It is because, and only because, consumers find resources satisfactorily allocated that would-be competitors find entry difficult or impossible. Product differentiation, especially differentiation that does raise prices, can only act as a barrier to entry if consumers prefer that differentiation, and pay the presumably higher prices associated with, say, new annual auto styles. If consumers do not prefer such differentiation and, instead, reward the firms that change styles *less* often, or not at all, then product differentiation could hardly act as a barrier to competitive entry. Indeed, in the case just postulated, product differentiation would be an open invitation to entry and to competition.

To condemn commercially successful product differentiation as a misallocation of scarce resources, therefore, is to condemn the very “resource allocations” that consumers apparently prefer. It is the neoclassical economist’s allegedly “optimal” allocation of resources *under purely competitive conditions*

that product differentiation upsets, and not any allocation that can be associated with free consumer choice.

The same sort of argument can be made—and even more obviously—with respect to scale economies. Consumers do not regret the economies nor the consequent reduction in competition. Consumers could “increase competition” any time they choose to by indicating their willingness to pay higher prices to cover the higher costs of the smaller firms. That they do not usually do this indicates the resources are correctly allocated so far as they are concerned. Again, it is the economist’s vision of the purely competitive wonderland that is upset by the large, efficient firm, and not allocative efficiency from a *consumer* perspective.

The final absurdity in this area is to observe where such incorrect theories of competition are likely to lead. If product differentiation limits competition, i.e., limits the number of competitors, then more competition can be obtained by limiting product differentiation—by law. If efficient techniques of production or scale economies limit competition, i.e., the number of competitors, then more competition can be obtained by raising either costs or prices for the efficient companies—by law. Thus, to take the barriers-to-entry theory seriously is to end up proposing as rational public policy—in the name of consumer welfare—the very procedures that consumers would likely find most harmful. The only thing sadder than all of this is that such ideas have actually been taken seriously in some antitrust circles and by the courts, and we have had some real world legal decisions that reflect such theoretical nonsense.⁵

As should be quite clear from the above review and critique, there is much dissatisfaction with the traditional notions of monopoly and competition, and with the simplistic antitrust policies (anti-merger policy, for instance) founded on such assumptions. But if the neoclassical approach to monopoly and competition is defective, what is the correct approach in this area? Indeed, *is* there a logical and rational theory of monopoly and, accordingly, an appropriate public policy to complement that theoretical approach? In the sections below we will turn to a critical examination of Austrian monopoly theory in an attempt to answer these questions. The views of von Mises, Kirzner, and Rothbard will be taken as representative of various Austrian positions concerning monopoly.

MISES’S MONOPOLY THEORY

Monopoly exists for Ludwig von Mises when “...the whole supply of the commodity is controlled by a single seller or a group of sellers acting in concert.”⁶ This condition puts the monopolist (or cartel) in the position of being able to restrict supply in order to raise market price without having to “fear that his plans will be frustrated by interference on the part of the other sellers of the same commodity.”⁷ Mises holds,

however, that monopoly *prices* do not result unless the restriction in supply produces prices that actually increase the monopolist's "total net proceeds." Only if the demand for the product is inelastic in the price range under discussion could "monopoly prices emerge as differentiated from competitive prices." Hence, it is not "monopoly" as such that is catallactically relevant for Mises, but only the "configuration" of the demand function and the emergence of monopoly prices.⁸

Importantly if such monopoly prices do exist, then they are an "infringement of the supremacy of the consumers and the democracy of the market."⁹ Mises even goes further:

"Monopoly prices are consequential only because they are the outcome of a conduct of business defying the supremacy of the consumers and substituting the private interests of the monopolist for those of the public. They are the only instance in the operation of a market economy in which the distinction between production for profit and production for use could to some extent be made..."¹⁰ "

And again:

"The characteristic feature of monopoly prices is the monopolist's defiance of the wishes of the consumers."¹¹ "

Mises also argues that although most monopolies and monopoly prices are made possible by government intervention in the free market (tariffs, licenses, etc.), there are certain instances in which monopoly (and monopoly prices) arise in the unhampered market. He specifically mentions natural resource monopoly,¹² geographic monopoly,¹³ limited-space monopoly,¹⁴ and monopoly that might arise because consumers place a "special confidence...on the individual or firm concerned on account of previous experience,"¹⁵ as with certain trademarked drugs.

KJRZNER'S MONOPOLY THEORY

Professor Kirzner's theory of monopoly can be derived logically from his well-articulated theory of the competitive process.¹⁶ Kirzner views the market process as one in which market sellers are continually attempting to inch ahead of rivals by offering more attractive opportunities to potential buyers. And he views this process as *inherently* competitive since the key ingredient that makes the process function—entrepreneurship—can *never* be monopolized. For Kirzner, pure entrepreneurship requires no resources whatsoever; hence the freedom to enter the market is absolute since no obstacles to entry can ever exist in a free market.

However, the exercise of entrepreneurship is quite another matter. Here the exclusive ownership or control of “*all* the current endowment of a certain resource” is defined by Kirzner to *be* monopoly, can indeed block entry into the production of some specific good, and can hamper competition and “impede the course of the market process.” A monopoly producer for Kirzner is one whose “exclusive input blocks competitive entry into the production of his products.”¹⁷ To employ Kirzner’s example, without access to oranges, “production of orange juice is blocked.”¹⁸

Kirzner notes that monopoly should *not* refer to a producer who—in the absence of resource monopoly—is the single supplier of some product in the market. That firm, he reasons, is still fully subject to the market process since entry into competitive production is always possible. On the other hand, when “needed resources” are restricted because of monopoly ownership or control of a certain resource, the very *possibility* of competition—and the benefits to consumers that are the consequences of competition—are eliminated.¹⁹ Here, according to Kirzner, the monopolist is completely “immune from the competition of other entrepreneurs who might, in other circumstances, enter his field of activity.”²⁰

Kirzner is quick to note, however, that the monopolist is not immune from the competitive process itself. Although entry into some specific activity is by definition blockaded, entry into *similar* activities is not. Monopoly control over a resource simply diverts the competitive, entrepreneurial process into other similar activities, employing other resources which create a “turbulence” that surrounds and impinges upon the monopolist’s, original activity.

Importantly, Kirzner hints that the equilibrium tendency of a market containing resource monopoly is to produce a *higher* than “competitive-equilibrium price” for the resources and also a higher “surplus” for the product produced with that resource. This surplus can be accomplished by withdrawing some of the stock from the market and “forcing” up the market price.²¹ Thus, consumers *might* be harmed by such activity since scarce monopolized resources are not being employed to the “fullest extent compatible with the pattern of consumer tastes in the market.”²²

ROTHBARD’S MONOPOLY THEORY

Professor Rothbard’s analysis of monopoly, monopoly price, and the welfare implications of such economic conditions differs radically from that of both Mises and Kirzner. Indeed, in his discussion of monopoly, Rothbard is sharply critical not only of the neoclassical monopoly theories, but also implicitly critical (and occasionally explicitly critical) of views held by his fellow Austrian theorists as well.²³

As far as Rothbard is concerned, there are three possible definitions of monopoly: one, the single seller of any given good; two, a grant of special privilege by the state, reserving a certain area of production to one

particular individual or group; and three, “a person who has achieved a monopoly price.”²⁴

Although Rothbard admits that the first definition (single seller) is a coherent and even a “legitimate” one, he rejects it as *impractical* because it is too broad and all-inclusive. The impractical nature of this definition can be illustrated, Rothbard argues, by noting that any difference (differentiation) in any two goods or resources and, more importantly, any consumer-perceived difference in any two commodities or resources will make them unique (specific) goods and thus, by definition, “monopoly.” Hence, “the single seller of any given good” could always reduce to the notion that everyone is a monopolist since each person in a market system is presumed to have exclusive ownership of *his* own (unique) property. But a definition that makes everything monopoly and everyone a monopolist is barren, “confusing,” and “absurd” according to Rothbard.²⁵

Rothbard clearly prefers the second definition of monopoly—i.e., a grant of privilege from the state restricting competitive production or sale. This is a monopoly since entry into the privileged activity is prohibited by the state; logically, no such monopoly could ever exist in a free market. This definition will be adopted as the “proper” one should the final alternative definition prove nonsensical or illegitimate.²⁶

Rothbard’s criticism of the theory of “monopoly price” (as well as his criticism of the theory of “competitive price”) is certainly a controversial contribution to the literature on monopoly. For here he argues that in a free market there is simply no way of conceptually distinguishing “monopoly price” from a free-market competitive price.

On the free market there is no way of distinguishing a “monopoly price” or a “subcompetitive price” or of establishing any changes as movements from one to the other. No criteria can be found for making such distinctions. The concept of monopoly price as distinguished from competitive price is therefore untenable. We can speak only of the free market price.²⁷

It has been common, of course, to speak of monopoly price as that price accomplished when output is restricted under conditions of inelastic demand, thus increasing the net income of the supplier. Even Mises, it will be recalled, employed the term in this manner and drew some fairly dismal welfare implications from the “restriction.”

Rothbard argues, however, that there is no objective way to determine that such a price is a monopoly price or that such a “restriction” is antisocial. All we can know, according to Rothbard, is that *all* firms attempt to produce a stock of goods that maximizes their net income given their *estimation* of demand. They attempt to price (other things being equal) such that the range of demand above the asking price is

elastic. If they discover that they can increase their monetary income by producing less—or even destroying existing stock—in the next selling period, then they do so.

Rothbard maintains that to speak of the initial price as the “competitive” price, and the second-period price as the “monopoly” price makes no objective sense. How, he asks, is it to be objectively determined that the first price is really the “competitive” price? Could it, in fact have been a “subcompetitive” price? Indeed, the entire discussion is absurd for Rothbard since there are no *independent* criteria that would allow either determination. All that can be known for sure, he argues, is that the prices both before and after the supply change are free-market prices.

Rothbard also argues that “monopoly” prices cannot be inferred by comparing such prices to prices charged for *similar* factors. So long as the factors are not perfectly identical in the eyes of buyers, the differences in price (or profits) are simply free-market determinations of value for different goods. And any talk of monopoly price or monopoly “gain” when two *different* factors or goods are being compared is analytically incorrect.²⁸

Finally, the welfare implications concerning alleged monopoly prices would not follow even if such prices could exist. Since the inelasticity of demand for Rothbard is “purely the result of voluntary demands” of the consumers, and since the exchange (at the higher prices) *is* completely “voluntary” anyway, there is no way to conclude that consumers or their “welfare” have been injured.²⁹ Thus, for Rothbard there is no social “problem” associated with monopoly in a free market. Monopoly prices cannot be defined logically, let alone established in a free market.

CRITICAL REVIEW OF AUSTRIAN MONOPOLY THEORY

The views of Kirzner and Mises that monopoly consists of exclusive control over the whole supply of some specific resource create a number of familiar difficulties. In the first place, there would appear to be no objective way to define *beforehand* some “homogeneous” stock of resources that might be monopolized. All individually owned stocks of a resource could be differentiated at least with respect to location; in addition, the private-property system itself necessarily imparts a “differentiation” to all privately owned stocks. Further, even identical units of some given stock might be regarded differently by potential users, and there would be no way to determine this beforehand. Hence, this view of monopoly could reduce logically to the notion that each and every unit of everyone’s property stock is owned “monopolistically.”

Rothbard, it will be recalled, was critical of this definition of monopoly because its all-inclusiveness made it “impractical,” confusing, and, ultimately, “absurd.” But we can be critical of it on different grounds, employing Professor Kirzner’s own (correct) view of the competitive market process. It will be recalled that

Kirzner had argued that the key to competition was freedom of entry and that entry was impossible if potential entrepreneurs could not gain access to monopolized resources.³⁰ Yet, as has been noted above, if *all* individual stocks of resources are, in fact, *monopolized*, it would seem to follow that Kirzner's definition of monopoly would completely negate his own views on competition and market process. Indeed, it is difficult to understand how any competition or market process would even be possible with this definitional approach. How could *any* competition occur if *all* resources are monopolized?

Even if it were to be assumed for the moment that resources are *not* uniquely specific and are, instead, completely homogeneous, additional difficulties remain. Why, for instance, ought monopoly ownership to preclude the *possibility* of competition from potentially rivalrous entrepreneurs that *purchase* needed resources? Indeed, Kirzner himself has already stated that the market process is "*always*" competitive so long as there is freedom to buy and sell in the market.³¹ Even monopoly ownership does not erase the freedom to buy and sell since it is possible that access to resources could be obtained, say, through purchase. Yet Kirzner argues that the "*very possibilities themselves*" of competition may be eliminated by monopoly ownership of a resource.³²

Another difficulty with Professor Kirzner's approach is his use of the qualifying term, "*current* endowment of a certain resource."³³ Obviously, nothing prevents potentially rivalrous entrepreneurs from exploring for and exploiting new supplies of a specific resource. Indeed, "*current endowment*" of a resource is an ambiguous phrase since supplies of resources are normally classified as "*proved*," "*probable*," and "*possible*."

If Kirzner means to imply that a monopoly over the current *proved* endowment of a particular resource precludes the *possibility* of competition and allows the resource owner to be "immune from entrepreneurial competition,"³⁴ he would be arguing a tenuous point at best. Clearly such a "monopoly" allows no such thing. In this example, future³⁵ entry is clearly possible and cannot be precluded *a priori*. And since the entire Austrian tradition in this area is to treat the competitive process as one that unfolds through *time* anyway, how are the potential entrepreneurs effectively blocked from "discovering unexploited opportunities for profit"?

As a final point, monopoly over a resource would appear to make rational economic calculation difficult (if not impossible) since no "market" would then exist for the resource.³⁶ Without markets economic calculation is impossible since objective prices cannot be determined. A firm that monopolized "oranges" for instance, would have no objective way of knowing, subsequently, whether it was employing its resources efficiently in the production of "orange juice," or even whether it ought to be producing orange juice at all. This "definition" of monopoly, therefore, would appear to be operationally self-destructive. The

monopoly position would tend to generate inevitable irrationalities in production since entrepreneurs would have no objective way to calculate “costs.”

Mises, it will be recalled, realized the inherent difficulties of defining monopoly, and so he moved on to the catallactic significance of monopoly: obtaining the monopoly price and, thus, frustrating “the wishes of the consumers.” Professor Kirzner, although he denies that the elasticity of the demand function has any bearing whatever on whether a monopoly exists or not, nonetheless does argue that resource monopoly is likely to result in a restricted employment of such resources, higher prices, and larger surpluses for the producer employing the resource.³⁷ Importantly, such ownership (at least in the short run) has “harmful effects” since it creates an incentive “for not using a scarce resource to the fullest extent compatible with the pattern of consumer’s tastes in the market.”³⁸

It is really difficult to see, however, why any of this argument necessarily follows. The “pattern of consumer tastes in the market” would appear to be, simply, consumer demand. Consumer demand is the variable amount of some homogeneous stock that consumers would be willing and able to purchase at various prices. The important point to be made here is that in a free market such “demand” determinations by consumers are completely voluntary on their part, and all price-output combinations on that hypothetical function faithfully reflect that choice and relate those “wishes” to the producers. Consequently, consumers are at all times in complete control of (fully *sovereign* over) their own property at any given price-output combination,

It appears completely arbitrary to argue that only “low” prices, or “lower” prices induced by “supply increases,” or only the “elastic” portions of a consumer’s demand function are compatible with consumer sovereignty. Why are not consumers fully “sovereign” throughout the entire price-output range of their *own* demand function? After all it is *they* who determine, in certain instances, that they will trade greater volumes of dollars for fewer units of some good. Indeed, to prevent them from engaging in such exchanges would more accurately infringe upon their “sovereignty.” If and when consumers become dissatisfied with such combinations, they are perfectly free to change the “elasticity” of their own demand to combinations that they *do* prefer.

If the above analysis is correct, it follows that resource owners or producers that voluntarily “restrict” their supplies to obtain higher prices (not “force” them up as Professor Kirzner asserts)³⁹ have committed no socially harmful act. Restricted supplies and higher prices *relative* to what? *All suppliers in free markets restrict their supplies in the sense that they only supply as much of a good or resource as they determine will maximize their monetary or psychic income. But, importantly, this is precisely what the “monopolist” does.* If his action is “harmful,” then so is the economic activity of all other suppliers in the market.

Alternatively, it cannot be argued that what distinguishes “monopoly” supply from “competitive” supply is the consequently higher prices. In the first place we have already argued that the new price-output combination is perfectly compatible with expressed consumer demand and, therefore, with consumer sovereignty. Secondly, prices are always “high” relative to lower prices that *could* exist, but do not. Indeed, any price at all is “high,” “frustrates” consumers, and reduces their ultimate utility from consumption. But surely the ability to charge a lower price than the prevailing market price, or no price at all, can hardly be a correct criterion for judging whether a supply is competitive or monopolistic. Indeed, since producers are *also* sovereign under free-market conditions, we must conclude that *any* supply is competitive and *any* price is “compatible” with consumer sovereignty and consumer satisfaction.

ROTHBARD’S MONOPOLY THEORY RECONSIDERED

Rothbard it will be recalled had defined monopoly as “a grant of special privilege from the State reserving a certain area of production to one particular individual or group.” This definition of monopoly would appear to be immune from the sort of criticism employed above against both the neoclassical and Mises-Kirzner theories of monopoly. In the first place, we can be confident that competition is “lessened” by this sort of monopoly, and that resources are non-optimally allocated so far as consumers are concerned, since governmental monopoly restricts *by law* both competitive entry and, consequently, free consumer *choice*. Legal barriers to entry restrict entry by definition. Areas of production that are truly “naturally” monopolistic would hardly require *governmental* entry restrictions. Consequently, consumer choice must be distorted, and the subsequent resource allocations *must* be “inefficient,” since consumers are prevented by law from making choices that differ from those already made for them by the political authority. Hence, we conclude that governmental monopoly *always* restricts competition, *always* violates consumer (and producer) sovereignty, and *always* “injures” consumer welfare.

It would be tempting to argue that these “restrictions” and “injuries” are, perhaps, minor in the case of “minor” legal impediments to either production or exchange. Yet, there is no satisfactory way to cardinality measure either “competition” or consumer “utility.” Since utility is a completely subjective notion, and since interpersonal comparisons of utility are not possible, there is no objective way to determine how severe even “minor” state impediments to entry and competition actually are. It is completely possible, for instance, that what may *appear* to be an extremely inoffensive governmental regulation, i.e., setting minimum safety standards for sellers, may in fact be harmful in the extreme with respect to certain potential businessmen and specific classes of consumers.

We conclude, therefore, that any and *all* state restrictions are “monopolistic,” competition reducing, and destructive of consumer satisfaction vis-à-vis alternative free-market situations. We also conclude, in

summary, that this particular theory of monopoly is the *only* theory that meets all the standard critical objections and remains entirely consistent with the general Austrian methodology.

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- 1 For a review of this position see, for instance, Edwin Mansfield, *Microeconomics*, Second Edition (Norton, 1975), Chapters 9 & 10.
 - 2 Willard F. Mueller, *A Primer on Monopoly and Competition* (Random House, 1970), Chapter 2.
 - 3 Israel M. Kirzner, *Competition and Entrepreneurship* (University of Chicago Press, 1973).
 - 4 D. T. Armentano, *The Myths of Antitrust: Economic Theory and Legal Cases* (Arlington House, 1972), Chapter 2.
 - 5 *Ibid.*, pp. 212–15, 246, 267–68.
 - 6 Ludwig von Mises, *Human Action* (Yale University Press, 1963), p. 358.
 - 7 *Ibid.*
 - 8 *Ibid.*, pp. 358–60.
 - 9 *Ibid.*, p. 358.
 - 10 *Ibid.*, p. 371.
 - 11 *Ibid.*, p. 373.
 - 12 *Ibid.*, p. 371.
 - 13 *Ibid.*, p. 373.
 - 14 *Ibid.*, p. 375.
 - 15 *Ibid.*, p. 364.
 - 16 Kirzner, *op. cit.*, Chapter 1.
 - 17 *Ibid.*, p. 21.
 - 18 *Ibid.*, p. 103.
 - 19 *Ibid.*
 - 20 *Ibid.*, p. 105.
 - 21 *Ibid.*, p. 110.
 - 22 *Ibid.*, p. 111.
 - 23 Murray N. Rothbard *Man, Economy, and State*, Volume II (D. Van Nostrand Co., Inc., 1962), pp. 561–66. See also *Journal of Economic Literature*, September-October, 1974, pp. 902–3.
 - 24 Rothbard, *op. cit.*, pp. 590–93.
 - 25 *Ibid.*, p. 591.
 - 26 *Ibid.*, p. 593.
 - 27 *Ibid.*, p. 614.



Ibid., pp. 208–9.

²⁹ Ibid., p. 564.
Image Source: Getty

³⁰ Kirzner, op. cit., p.103.

³¹ Ibid., p. 20. This statement would seem to refute Kirzner’s entire position on monopoly. If markets are always competitive so long as there is freedom to buy and sell, then in a free market there is always competition and never any monopoly.

³² Ibid., p. 103.

³³ Ibid., p. 21.

³⁴ Ibid., p.110.

³⁵ And “future” in an entrepreneurial sense can mean the next moment competitive supply appears or threatens to appear.

³⁶ See Rothbard’s discussion of similar problems for cartels in *Man, Economy, and State*.

³⁷ Kirzner, op. cit., p. 110.

³⁸ Ibid., p. 111.

³⁹ Ibid., p. 110.

CHAPTER 11

Monopoly and Competition

We're entering the wild, wonderful world of monopoly and competition. To sum up from the last lecture, what's happened is that the words "monopoly" and "competition" have been changed. In the seventeenth, eighteenth, and nineteenth centuries, and also in the mind of the ordinary person even today, what competition means is competing; in other words, rivalry, trying to offer a better product or a cheaper price than the other guy, the next guy in the industry. Competing means acts of competing and, as I say, it's what the average person thinks of, what businessmen think of, when hearing the word "competition."

Also, a very important point, competition can be potential as well as active. Even if you have one firm in an industry, it could still suffer or be subjected to the rigors of competition, because if it raises prices and cuts production, another firm might come in and outcompete it, and then it's stuck with the other firm forever. And what business firms hate more than anything else is to bring in other competitors. And if they cut production and raise prices when they enjoy a monopoly price, then their higher profits will attract more competitors. Other capitalists will come in with new equipment and new plants, more modern equipment than this firm has. So potential competition is just as powerful as actual competition in the

minds of the businessmen. We have competing, either actual or potential or both.

“Monopoly” meant, from the seventeenth century on, a grant of exclusive privilege by the government. It means exclusively either one person or one firm or several firms. So, for example, the king of England gave to John Smith the monopoly of production of all playing cards in the kingdom of England. Anybody else who produced cards was shot. Doing this put you in a state of illegality, in other words.

Why did the government do this? John Smith benefits and the consumers suffer and potential competitors suffer. Suppose a given price and quantity supplied for playing cards, decks of cards. You say that only John Smith can produce it. That means you’re shifting the supply curve to the left and you’re forcing consumers to pay more for a lower quantity supplied. You’re keeping out all other competitors, people who would want to produce cards if they were allowed to do it.

You should ask yourself this in all cases of government interference, who benefits and who pays. Who? Whom?¹ In other words, who is screwing whom in any act of government whatsoever? The beneficiary is John Smith, the monopolist with playing cards. The losers are the consumers and the competitors, the people who would have competed; excluded competitors, in other words. Also benefiting is the king and his bureaucracy. In the old days, the king would simply sell the monopoly privilege to John Smith. John Smith gets a monopoly privilege producing playing cards for twenty years; the king gets paid for it. And also the king or the government builds up a bureaucracy and builds up political allies, in this case John Smith. This, of course, is happening all the time, not just with monopolies but also with cost-plus contracts, in fact with any government contract.

Take, for example, the New York City scandals right now, the famous parking violation scandal. The City administration had a question, who should get the computer contract—it wanted to buy computerized machines that search for parking violators. Two companies competed for the contract, Motorola—it’s an old distinguished computer company—and an obscure little outfit called CompuSource, one nobody ever heard of. CompuSource gets the contract. CompuSource has no money and no computers yet. Why did they get the contract? Because Stanley Friedman, the distinguished head of the Bronx Democracy—the Bronx Democratic Party—was the lobbyist of

¹Editor’s note: Rothbard is alluding to Lenin’s slogan, formulated in 1921.

the contract. Stanley Friedman received no money but, in return for getting the contract, received a majority shareholdership of the company. In other words, he got \$1.5 million in shares as his legal fee. He became the majority shareholder to a previously non-existent company, which was formed only for the purpose of getting the contract.

Who benefits? The recipient of the monopoly privilege or contract, and the government official. So whether it's the king who does it or some city official who does it, it really doesn't make much difference. The government is in a position of selling monopoly privileges and people are then buying them.

If roulette wheels are outlawed, for example, but if a police captain allows a certain roulette wheel establishment to operate in his district and he's on the take from the company that does it, then the police captain is selling monopoly privileges. The monopoly privilege is operating a roulette wheel in that district. This sort of thing is going on all the time. This is essentially known as the Government-Industrial Complex. In the defense area, it's called the Military-Industrial Complex, but it's wider than that. It's the Government-Industrial Complex, the Government-Business-Complex, also known as Government-Business Partnership. We'll see that examples of exclusive privilege are rife, for example in the taxi industry, the airlines before deregulation, etc., etc., etc.

Now, to continue with monopoly—the American Revolution was fought largely against monopoly. In other words, against the British government, which had given to the East India Company, a corporation which had a monopoly of all trade with the Far East, the exclusive privilege to import tea into America. And the Americans rose up against them and dumped the tea in Boston Harbor, in the so-called Boston Tea Party. This was an attack not only on the tax but also on the monopoly privilege. When the first American states were created, they put provisions in their constitutions outlawing monopoly. What they intended, of course, was not outlawing what is now meant by monopoly in the textbooks. They meant no grants of monopoly privilege by the government. Of course, this has become a dead letter basically; but at least it was there in the state constitutions to express the fact the American Revolution was an anti-monopoly revolution as well as an anti-tax one.

To simplify the situation, these were the definitions of “competition” and “monopoly” until the 1930s, basically. In the 1930s, a crazy new theory in microeconomics was coined slightly earlier than Keynesian macroeconomics. What we've had in the last thirty years is a process of roll-back

by which Keynesianism is getting increasingly discredited in macroeconomics, and none too soon; and also increasingly discredited is this new monopolistic competition theory, which, however, is still in the textbooks. In other words, it's been rolled back quite a bit. It's not taken as seriously as it used to be, in the 1930s. But it's still there, the alleged ideal of perfect competition.

During the 1930s, competition and monopoly were redefined. But the old terms were retained and they kept the old value connotation they had with their customary meanings. In other words, everybody was in favor of competition and against monopoly. The American public, economists, intellectuals, and everybody else agreed that competition was good and monopoly was bad. Or if they wanted to speak in so-called scientific terms, competition was efficient and monopoly was inefficient; but basically, this was another way of saying good and bad. And for obvious reasons they redefined the words "competition" and "monopoly," and then applied the same old value judgments, the emotional baggage these terms had, to a new set of definitions.

Competition was defined as a state not of competing, but as a state of so-called perfection and purity. Monopoly was a state of imperfection—monopolistic meant imperfect and impure. Now, notice the terms here. They're supposed to be value-free scientific terms. But perfect—who does not prefer perfection to imperfection? I mean, the very terminology gets you to be in favor of perfect. Who doesn't prefer pure to impure? Who doesn't prefer perfect competition to monopolistic competition? So the term "monopolistic competition" is used to suggest a negative value judgment.

And the redefinition was as follows. Competition meant a situation where each firm, not the industry but the firm, faces a horizontal demand curve, an infinitely elastic demand curve. And monopoly—or monopolistic competition, or impure, imperfect competition—it's all the same, bad—is defined as a situation where each firm faces a falling demand curve. That's it. Now, this is really the definition. You cut through all the jargon and all the junk in many chapters of the textbooks and this is the heart of the matter. Fortunately, Miller has less of such junk than you'll find in most other textbooks.

In previous lectures, I've already proved—and it took me several weeks to demonstrate this—that all demand curves are falling. Where then do we get this horizontal demand curve from? We get it in this way: The model is the wheat industry. There are two million wheat farms in the world and you have Hiram Jones, who has 100 acres of wheat in Iowa. If Hiram Jones

is a very, very tiny proportion of the total wheat industry, whatever he does on his wheat farm doesn't make any difference to the price. In other words, if he increases his production like 20 percent, it's not going to make a big dent in the total supply. We can therefore assume, according to the theory, that he's facing a horizontal demand curve. In other words, he can increase his supply by cutting the fat. He can sell it at the same price because it makes a very tiny dent on the total. In this model of the ideal, every firm is so tiny that it can't affect its price, relative to the total quantity supplied by the industry. Whether it goes out of business or triples its production will have no effect on price. This is supposed to be an ideal situation. Everything else is imperfect, impure, monopolistic.

And, of course, each one of us is a monopolist, by the way. Each one of us faces a falling demand curve. We're all monopolists, every one of us, if we're engineers or economists or whatever. If you go out in the engineering labor market and you insist on a higher wage rate, a very high wage rate, you're going to see a falling off of demand for your services. For example, you insist that you won't work for IBM for less than \$500,000 a year, you'll probably get disemployed very fast. What kind of a crazy system is it where everybody is a monopolist? Everybody except possibly Hiram Jones and the wheat industry. It makes very little sense.

The next point is trying to figure out why it is that competition is better than so-called monopoly. Why is it? What's so great about a horizontal demand curve anyway? And by the way, the result of this was, all during the 1930s and 1940s, the Anti-Trust Division, which was influenced by the economists who have this view, was trying to break up big business into small parts so as to duplicate the small wheat-farm situation. In other words, it's like taking General Motors and Ford and breaking them up into two million teeny little blacksmith shop-sized automobile plants. Automobiles used to be made in blacksmith shops and bicycle shops when the auto industry first got started in the 1900s. Bicycle shops used the wheel and axle technology, so they were able to shift to producing cars. But these shops were very small. You're grinding out two cars a month. That's the ideal of the perfect competition supporters.

I'll now give you the whole shtick, the full argument about, why is this better, why a falling demand curve is supposed to be evil.² I'm going to set forth for you now a series of insane assumptions, none of which are

²Editor's note: "Shtick" is a Yiddish word, here meaning "gimmick."

realistic, and all of which are flawed, deeply flawed. Using these assumptions, we wind up with the conclusion that competition in the sense of a horizontal demand curve is better than monopoly in the sense of a falling demand curve.

First of all, we need to consider the concept of final or long-run equilibrium. Now, long-run equilibrium is different from what I've been talking about, supply and demand on a day-to-day basis. Long-run equilibrium is this: In the real business world, there are lots of changes taking place in values and resources and technology. Suppose that the angel Gabriel came to the earth and froze everything, all value scales, resources, supply, labor, land, and technology, etc. Then, in a few years, you would wind up with every corporation making the same long-run interest rate say, 6 percent. In other words, there would be no pure profit and no pure losses, because everything would be the same all the time. If you can foresee everything, you're not going to make any losses. If a firm is now making heavy profits, for example one in a capital-poor industry, new firms will enter the industry, until you wind up with the usual 6 percent. If industries are making losses, firms will leave. You wind up after a kind of shuffling back and forth after a few years with everybody making 6 percent, no more, no less—or 4 percent, whatever the interest rate is.

But remember, final equilibrium does not exist; never can exist; never has existed and never will exist. You can't freeze the data. The data are always changing. Value scales are changing, fashions are changing; technology changes, investment changes and labor changes. A lot is changing all the time. So you never get to long-run equilibrium.

The important thing about long-run equilibrium is to show you how to analyze profits and interest. Equilibrium shows you that profits and losses are a matter of forecasting, and interest is a matter of time preference. It's really an analysis of where the economy is going. It should not be taken seriously as an existing situation because it never has existed and it never will.

But what has happened, unfortunately in microeconomics since the 1930s is that long-run equilibrium has been taken seriously as not only existing, but as something which should exist. But it shouldn't. If it did, we'd all be in miserable shape. We'd be in a state of stasis; where nothing ever improved and nothing ever changed. It would be pretty miserable, like an ant heap or a beehive. Anyway, this is supposed to be the ideal situation.

In this situation where all firms earn the same return, you wind up geometrically with total cost tangent to total revenue at whatever the production point is. In the average-cost diagram, you have your U-shaped

average-cost curve and you have an average-revenue curve—they would have to be tangent in final equilibrium.

And given a U-shaped average cost curve, we can compare what happens when a firm faces a horizontal demand curve and a falling demand curve. The points of tangency will be different. With a firm facing a falling demand curve, the output will be smaller and the price will be higher than a firm with a horizontal demand curve. That's it. That's the whole shtick. The supporters of perfect competition compare this to a monopoly privilege where the government excludes firms. Here you have a smaller product at a higher price. The conclusion they draw is that consumers are being screwed by a monopoly whenever a firm faces a falling demand curve. Therefore, the Anti-Trust Division should come in and break every firm up into teeny parts so as to get to the bottom of the average cost curve.

Now, to say there are many problems with this is putting it kindly. In the first place, mean, just one question: How big is this difference in price and quantity anyway? You're going to the trouble of breaking up firms. Is this difference one half of 1 percent or is it really important? Nobody knows. Remember, all laws in economics are qualitative. You might be going through this entire headache for a very small fraction of return. As a matter of fact, some economists have tried to estimate what this percentage is. It's something like 2 percent. But that's the least of the problems here.

One problem is, who says we have a U-shaped cost curve? As we've already seen, it's not really U-shaped. In most cases, the cost curve goes down and it's flat. In a flat plateau, none of this works. This whole thing is out the window because, first of all, the intersection point is now a whole area, not just one point. You have a whole range at which marginal costs and average costs are equal. It's possible that a falling demand curve could intersect with the cost curve at its lowest point.

Don't forget, there's nothing that says that the falling demand curve has to be linear. Remember, the linear part is truly for simplification purposes. Nobody knows that it's a straight line. All we know is that it's falling. There could be a little gap in the line. And so you could easily twist it around a little bit so that a falling demand curve, like a horizontal demand curve, could hit the cost curve at the bottom. With a flat bottom, the intersection point is pretty extensive.

Second of all, the model only works in equilibrium. In other words, the rest of the time, in the real world when there is no equilibrium, none of this applies. There's no way you can say that output is smaller or priced higher in so-called monopolistic situations. You can only show that in

long-run equilibrium. Since there never is long-run equilibrium, this whole thing is pointless. This situation, tangency at one point, never exists in real life. It never can exist. It never will exist. And we'd be in bad shape if it did exist. There's nothing great about long-run equilibrium.

Also, and finally, and probably the most important point here is, who says that the cost curve would remain the same if large firms were broken up? Where is it written? In fact, it's just the opposite. If we took General Motors or Ford and broke them up into 500,000 or whatever number of teeny plants, each the size of the blacksmith shop, you might hit the bottom of the cost curve, it's true. But the cost curve would be extremely high because each plant would be very inefficient. You wouldn't capture the advantage of large-scale production. So you might get a price of \$5 million per car, which only a few millionaires could afford. This is, by the way, what happened in the early days of the automobile. It was a toy for the rich. Diamond Jim Brady and his like could ride around in them. And only when Henry Ford introduced mass production and interchangeable parts could the average person ride.

So in other words, we could have inefficient production in an industry, but the consumers would have the thrill of knowing that each firm would be at the bottom of the cost curve. You would have eliminated the so-called monopoly here. On the other hand, unfortunately, you would be paying \$5 million a car because each cost curve would be enormously higher than the cost curve under large-scale production. So the fallacy of the perfect competition school is to assume the cost curves are equal after breaking up large firms. Cost curves are never equal. And the reason for large-scale production is precisely because the cost-curve is lower.

So all this, I think, is to demonstrate the egregious fallacy with this whole idea that somehow perfect or pure competition is better than so-called monopolistic competition, that there's something evil about a falling demand curve.

So how did this whole idea arise? And the answer is interesting. It was partly in the anti-business climate of the 1930s that this kind of doctrine became popular. So what's been happening over the years is that the economics profession has been slowly rolling backward from this commitment to this crazy perfect-competition doctrine. But it's still there as an idea. It's still listed as the ideal outcome. And it'll take quite a while before that gets blasted loose, I'm afraid.

What's happening now is the economists have essentially stopped endorsing the idea of breaking up all businesses into tiny little blacksmith-shop size. But they're still somehow intellectually committed to this alleged ideal, largely because you see the U tangency in equations in differential calculus. If everything is tangent and in equilibrium and the curves are smoothly arcing and so forth, you also have beautiful equations of tangency and the graphs are great. This produces the alleged hard science of economics. Of course, this hard science is only alleged; it's really a fabrication of hard science. But as soon as you drop tangency and equilibrium and bring in the real world, the graphs and equations have to be either modified or eliminated. The "science" has to be abandoned.

Another feature of the perfect competition doctrine is that goods are "given." This means that you can't have any improvement. Any improvement is "monopolistic," because only one firm will come out with a new product or invention.

So according to this doctrine, if Polaroid is the first firm that comes out with the Polaroid process, it becomes monopolistic right away. "Monopoly," taken in the way perfect competition people use the term, is good because without it, you wouldn't have any improvements at all. Under their ideal, every firm would be like a small wheat farm. No firm would be able to invent a new product or a new process. There wouldn't be any computers. There wouldn't be any Xerox. There wouldn't be any Polaroid. There would be nothing, no calculators. Everybody would be stuck in the old wheat-farm kind of situation, where no one firm could do anything. No firm could even be active as a competing force, much less do anything else. So what I'm saying here is that the whole alleged ideal is a lot of hocus pocus; it's mumbo jumbo based on a whole series of crazy assumptions.

In real life, again, the real problem of monopoly is not the falling demand curve. There's nothing wrong with a falling demand curve. There's nothing inefficient or unethical or anything of the sort. The problem of monopoly is once again the same problems we had in the seventeenth, eighteenth, and nineteenth centuries, namely government grants of exclusive privilege, either for one firm or for several firms. That's really the situation when monopoly comes in. Cost-plus or exclusive contracts, or keeping out different parts of the industry and, thereby, shifting the supply curve to the left, raising prices, keeping out competitors, that sort of thing. This always has existed and always has been the problem with monopoly. It still is.

Let's see how this works. For example, before the deregulation of airlines, from the 1930s to a couple of years ago, [before 1986] we had the Civil Aeronautics Board. It's a lovely institution. It served as a cartelizing device, in other words, a monopolizing device. The CAB was lobbied for by the big airlines. It was essentially staffed by people from the big airlines. The idea was to exclude competing airlines and to assign monopoly routes and also to regulate the rates so the rate would keep going up. For example, I think only Eastern Airlines could do the New York to Boston route in those days. If anybody else tried to fly from New York to Boston, they were shot. In other words, they were considered illegal. They were excluded by the CAB. The CAB gave Certificates of Convenience and Necessity, I think they were called, to any airline on the route. If the CAB said, no, you can't fly on that route, you couldn't do it. There was no free market, no free enterprise in the airline industry. I think at one point Pan Am had the entire Pacific locked up. All routes to the Pacific had to be flown by Pan Am. I think Pan Am was the Republican Airline and TWA was the Democratic. The Democrats came in and they allowed TWA to fly that route.

And there still [i.e., in 1986] is, by the way, a very powerful international airline cartel, the IATA, International Airline Transport Association, that has a lock up on all European flights. Now those of you who have never flown to Europe will see, to your horror, that it's more expensive to fly from London to Frankfurt than it is from New York to London, because the intra-European flights are locked up by a very powerful inter-governmental cartel.

In other words, you have a rationing situation. You assign routes. You exclude everybody except one or two airlines on each route. You lock up particularly the major routes, the most profitable routes, and jack up the price.

Now originally, I think until as late as the 1950s, there was no such thing as First Class and Coach. All classes were First Class. Everything was extremely expensive, at least relatively speaking. But one thing you have to realize, which we'll emphasize in this course, is that a big company doesn't necessarily outcompete a small one. Sometimes small competitors are more efficient. And so, in this case, the small airlines came in and started out competing the big ones by offering cheaper service and a no-frills service. What you had then were heroic little airlines. There had names like Transamerica and Continental and Transcontinental. They were named the poor-people express. And immediately, the CAB and the rest of the airlines came in and prohibited them from scheduling their flights.

There was no safety problem, by the way. Safety is handled by the FAA, the Federal Aviation Administration. The CAB was purely in charge of economic monopoly; it was part of the airline business. And these small airlines had very good safety records, much better than the big airlines per mile flown. But the CAB said, "You guys are unfair competitors; we won't allow you to schedule your flights." In other words, they couldn't have any timetable. They had to sit there on the runway until they filled up. So they could only say, "We're flying on Tuesday." They couldn't say, "We're flying Tuesday at 11:00 a.m." They were prohibited by the law and by the CAB from doing that. They were non-scheduled airlines, called the non-scheds.

Even as non-scheds, they were able to outcompete the big airlines. They were able to fly people from New York to LA, let's say, for half the price of United or American or TWA. It's true, there were no frills. Some of these outfits used to weigh you along with the luggage. It was the maximum weight of you plus the luggage. Those of us who are on the heavyset side thought of it as a kind of discrimination. Still, in all, it's a trade-off, the ignominy of getting weighed against the fact that it costs you a lot less.

I remember my wife flew from Los Angeles to New York on a non-sched. I think it was Transamerica. It was very cheap. It was kind of scary. At one point, they announced, "Please, everybody, go to the back of the plane." It didn't give you a feeling of great confidence. Also, at one point, it was raining, and there was a leak in the ceiling of the plane. The stewardess, with great aplomb, went up there and took a Band-Aid and put it on the leak.

They didn't give you great security. On the other hand, they had a very good safety record. They had no crashes that I remember. And the competition of Transamerica and Transcontinental forced the big five to create a Coach section in the rear of their planes, with a fare cut in half of the First Class price. That was in the 1950s.

Finally, the CAB, they simply forced them out of business, saying, from now on, you can't fly anymore. That was the end of that, the end of Transamerica and the end of Transcontinental and the rest of them.

And there was another plane that went to Europe a friend of mine used to go on. It would fly to Iceland and Luxemburg, and on the return trip would land somewhere in a field in New Hampshire. You would then make your way to New York by train or bus. Again, it was very cheap, much cheaper than the official fares in that period.

What, happened when minimum fares were set by the CAB at a very high rate? There are all sorts of ways to compete. If you can't compete on the basis of price, you can compete on the basis of quality of service, the frills.

And so you start giving better food or swankier portions, prettier stewardesses and so on. These became the methods of competition rather than price.

At one point, IATA cracked down and said, from now on, no more hot meals on Trans-Atlantic flights. You can only have sandwiches. And so what the individual airlines started to do in order to break the cartel was to have open-faced sandwiches. They took the whole Beef Bourguignon dinner and put it on a piece of bread and called it a sandwich, in this way, getting around the crazy cartel regulations. You see this pattern frequently in economic history: the government puts on crazy regulations and the market tries to get around them.

What finally began to happen on the airlines is characteristic of government granted monopolies. If you're a monopoly, you've got a very high profit; but in the long-run, the profit gets competed away and costs rise. In other words, you have a high demand curve, which generates high profits. That increases your demand for workers and raw materials and these prices start going up. You have very high salaries, for example, for pilots and stewardesses, much higher for these big airlines than for anybody else, such as the un-scheduled type. You have very high costs, plush offices and so forth; and an enormous amount of inefficiency. You wound up after about forty years of this with the airlines losing money, even though they're monopolistic. This, by the way, is what happened with the railroads. Railroads were overbuilt. They were then regulated. Their fares were kept up by the Interstate Commerce Commission.

Finally, when the move for deregulation came in the late years of the Carter administration, 1978, the airlines were almost ready for it. They had to try something new. So they more or less went along with it, even though reluctantly, because the monopoly just wasn't working. They were just losing money anyway. And they began to realize, maybe we would do better under deregulation. Their love for monopoly had more or less withered away after forty years.

And as a result of deregulation, you had tremendous changes in the airline industry. Some lines went bankrupt. Other lines have popped up as new and effective competitors, like People's Express, which offers much cheaper fares. On the other hand, you're not quite sure when they're going to take off because they might sit there, loading up. And you realize that you pay for the difference.

So various outfits have been involved, and there has been a lot of reshuffling in the airline industry. Another development was the invention of the hub and spoke plan, which came about when the market began to

realize this plan was more efficient. There are hub cities, like Denver, let's say. Instead of having a lot of non-stop flights from New York to Los Angeles, you stop at Denver. You have a lot of airlines coming in from other cities into Denver and going out again. Nobody could have predicted it in advance, but this is what happened.

To keep you up on the news since the term has started, the current *Time* magazine, on the front cover, it says "Oil Price, Cheap Oil, Good News." And underneath, it has a headline, "Cheap Oil, Bad News." And then it has a typical *Time*-type discussion, which is very middle of the road, having quotes from both sides, saying "Cheap oil, good; Cheap oil bad." In the latest political flap, Vice President George H.W. Bush, who is, indeed, a Texas oil man came out in favor of raising the price of oil, "stabilizing it," thereby violating the current principles of the Reagan administration.

The price of oil has magnificently fallen from \$30—\$35 a barrel several years ago to about \$10 a barrel now (1986). In real terms, since prices in general have tripled in the last twenty years, it's the equivalent of about \$3 a barrel in 1967 or so. It's just a little bit higher than before the OPEC Arab oil explosion in the early 1970s.

So what happens with any price change? Hysteria hits. Whether the price is going up or down, most of the establishment and most of the media are attacking it. A terrible thing; it'll cause inflation or a depression, depending on the nature of the price change. The claims can't both be right. It couldn't have been a terrible thing to raise the price of oil from three bucks to \$35 and also terrible to go down to \$10. You can't have it both ways, unless you think that any change whatsoever is bad, which is an idiotic position.

So what's the real story here? If you're a Texas oil man, you love the \$35 barrel crude oil price. You don't like it going down to \$10. On the other hand, who cares about Texas oil men? Why should they set the standard for how we decide something?

You shouldn't judge these price changes by taking Gallup polls or asking a Texas congressman and a New England congressman. What you should do is figure out where the consumers stand on this thing. The whole point of production of an economy in general is for consumption. The whole point of producing oil is that it will eventually get to the consumer in the form of kerosene, gasoline, heating oil, or whatever it'll be

used for. From the days of the caveman to the present, more and more consumer wants are being satisfied. The standard of living keeps going up. Everything gets cheaper and more abundant. The choices available to the consumer keep improving and increasing. New products come on the market and the old products get cheaper. That's what an increased standard of living means, that the consumers can get more and more goods and services.

So we know how to judge any price change up or down, namely, cheaper is better. Hold it in your heart. This of course, is what the average person's reaction is anyway. What you find in economics is that the average person's immediate reaction is usually correct. Unfortunately, this reaction is often misdirected by phony economics and bad advice people get from the media. Of course, if you have maximum price controls, you screw everything up. I'm talking about cheaper on the free market. A cheaper market is an expression of increased supply. Cheaper prices often result from breaking up cartels, and cartels are our next topic.

Notice some of the phony arguments you get about cheap prices. One is that the trouble with cheaper oil is that people use a lot of it and then it'll get more expensive. In response, we worry about it if and when it does get more expensive. You don't say that you have to jack up the price of oil now and re-establish the cartel, essentially what Bush wants to do, to avoid an increase in the price of oil ten years from now. The whole concept is nuts. That's an argument so ridiculous, nobody can really hold it. These arguments are advanced for sinister economic interests. By "sinister," I mean interests that want to re-establish the cartel, jack up the price of oil and lower the supply, against the public interest. Texas oil people want to do these things, of course.

The cartel is the situation where suppliers of any sort try to band together to restrict the supply and raise the price, taking advantage of an alleged inelastic demand curve. Let's assume the demand curve for the industry is inelastic. We know, of course, the demand curve of every firm is elastic. It's fairly flat. If, for example, Wonder Bread tried to raise the price to two bucks a loaf, nobody's going to buy it, except a couple of the very wealthy Wonder Bread fanatics. Everybody will shift to Pepperidge Farm or Tasty Bread. But if all the bread firms get together and try to raise the price, they're trying to go up their industry demand curve. This industry demand curve doesn't have to be inelastic; but if it is, firms are tempted

to try to restrict production and raise the price, thereby benefiting each firm and screwing the consumer.

Most people think it's easy to have a cartel, but in this case, the average person has the wrong instincts. Let's say General Electric and Westinghouse are essentially a two-firm electrical industry. The vice presidents of each company get together over at the Union League Club and one says to the other, "Hey, Jim, why don't we increase our price by 20 percent? We'll both do it, and because we'll have an inelastic demand curve, we'll have increased profits." And Jim says, "That's a great idea, Joe." People think that's the end of it, but it isn't. It's very difficult to establish a cartel, even disregarding the anti-trust laws.

The reason is this. In order to have a viable rise in price, they have to cut production. But every businessman hates to cut production. Every businessman wants to expand his operations. So to form a cartel is a very difficult process, requiring months of negotiations.

Let's say that two or three firms in the industry each agree to cut production by 15 percent, using 1985 as the base year to determine the cuts. Well, they can do that. In a year or so, though, each one will say, "I've got new machines. I've got better equipment. I've got new products. Why should I be bound by the 1985 restrictions when I know that if I expand production, I can outcompete these other firms now? I can get a bigger share of the market." Each firm has to believe that, because to be an entrepreneur, you have to be an optimist. You're spending a lot of money, investing a lot of money. And pessimists don't last long in business. And so the cartel quotas tend to be busted. Each businessman tries to renegotiate the cartel agreement. They say, "I've got a better product. I want to increase my production this year." And the rival says, "No, you can't do that; you're violating the quota." And often, the whole agreement breaks up in mutual recriminations of hatred. So it's very difficult to maintain sustained quotas of this sort over time.

And, in addition to that, each firm has a tremendous temptation to cheat. They're restricted in production by 15 percent. They have a higher price and each is making higher profits. Each one says, "If I can cut my price secretly, I could pick up an enormous increase in sales. I'll go down the firm demand curve and make millions." So he goes to his customer, and says, "Look, Jim, I'll give you a secret discount, a rebate of 15 percent or 20 percent. Don't tell Westinghouse about it, because we have a cartel agreement to keep prices up and cut production." After about six months,

everybody spies on everybody else. Each firm finds out that the others cheat and the whole cartel breaks up in mutual hatred.

When the railroads were the big business in the nineteenth century, a person who owned two railroads would form a pool or a cartel with another railroad. He couldn't get his own managers not to cheat. Each vice-president in charge of sales was devoted to increasing sales and hated to make cuts. Even though the one tycoon owned both railroads, the managers still cheated.

Another reason cartels break up stems from the fact that there's a lot of loose capital around. Capitalists throughout the world, who have a lot of money they'd like to invest, are looking around for profitable investments. When they see a profitable cartel, they say, "Let's go in and put in a new plant, new equipment, and undercut the cartel." So a new capitalist comes in. They create a new railroad or a new plant. And the old firms are now confronted with this new plant with better equipment. Because it's starting from scratch, it's going to have new modern equipment. And then they're faced with a question: Either they have to cut the new firm into the cartel, which means they might have to cut their own production by 30 percent. Otherwise, the whole cartel gets busted, and you're back down again to square zero.

And when you have external pressure, when a new sugar refining plant comes in or a new shoe production plant or a new railroad, the new firm is there permanently. No industry likes the situation where a high-profit umbrella invites new, unwelcome competitors into the industry.

Every cartel in history, in the world, has broken up on the free market, very quickly broken up. It doesn't take very long either, a year or two. The cartel has to break up. The only thing which can sustain a cartel is government intervention, compulsory cartels to keep the price up, keep production limited, and keep new firms from coming in. This is a compulsory cartel, when the government comes in and forces the establishment of a cartel. It's the essence of what we're living under right now, whether you want to call it the warfare state, or the warfare-welfare state. Essentially, we have a cartelizing state where government intervenes to try to cartelize different industries.

Are Diamonds Really Forever?

The international diamond cartel, the most successful cartel in history, far more successful than the demonized OPEC, is at last falling on hard times. For more than a century, the powerful DeBeers Consolidated Mines, a South African corporation controlled by the Rothschild Bank in London, has managed to organize the cartel, restricting the supply of diamonds on the market and raising the price far above what would have been market levels.

It is not simply that DeBeers mines much of the world's diamonds; DeBeers has persuaded the world's diamond miners to market virtually all their diamonds through DeBeer's Central Selling Organization (CSO), which then grades, distributes, and sells all the rough diamonds to cutters and dealers further down on the road toward the consumer.

Even an unchallenged cartel, of course, does not totally control its price or its market; even it is at the mercy of consumer demand. One of the reasons that diamond prices and profits are slumping is the current world recession. World demand, and particularly consumer demand in the US for diamonds, has fallen sharply, with consumers buying fewer diamonds and downgrading their purchases to cheaper gems, which of course particularly hits the market in the expensive stones.

But how could even this degree of cartel success occur in a free market? Economic theory and history both tell us that maintaining a cartel, for any length of time, is almost impossible on the free market, as the firms who restrict their supply are challenged by cartel members who secretly cut their prices in order to expand their share of the market as well as by new producers who enter the fray enticed by their higher profits attained by the cartelists. So, how could DeBeers maintain such a flourishing, century-long cartel on the free market?

The answer is simple: the market has not been really free. In particular, in South Africa, the major center of world diamond production, there has been no free enterprise in diamond mining.

The government long ago nationalized all diamond mines, and anyone who finds a diamond mine on his property discovers that the mine immediately becomes government property. The South African government then licenses mine operators who lease the mines from the government and, it so happened, that lo and behold!, the only licensees turned out to be either DeBeers itself or other firms who were willing to play ball with the DeBeers cartel. In short: the international diamond cartel was only maintained and has only prospered because it was enforced by the South African government.

And enforced to the hilt: for there were severe sanctions against any independent miners and merchants who tried to produce “illegal” diamonds, even though they were mined on what used to be private property. The South African government has invested considerable resources in vessels that constantly patrol the coast, firing on and apprehending the supposedly pernicious diamond “smugglers.”

Back in the pre-Gorbachev era, it was announced that Russia had discovered considerable diamond resources. For a while, there was fear among DeBeers and the cartelists that the Russians would break the international diamond cartel by selling in the open market abroad. Never fear, however. The Soviet government, as a professional monopolist itself, was happy to cut a deal with DeBeers and receive an allocation of their own quota of diamonds to sell to the CSO.

But now the CSO and DeBeers are in trouble. The problem is not only the recession; the very structure of the cartel is at stake, with the problem centering on the African country of Angola.

Not that the communist government (or formerly communist, but now quasi-communist, government) refuses to cooperate with the cartel. It always has. The problem is threefold. First, even though the Angolan

civil war is over, the results have left the government powerless to control most of the country. Second, the end of the war has given independent wildcatters access to the Cuango River in northern Angola, a territory rich in diamonds. And third, the African-drought has dried up the Cuango along with other rivers, leaving the rich alluvial diamond deposits in the beds and on the banks of the Cuango accessible to the eager prospectors.

With the diamond deposits available and free of war, and the central government unable to enforce the cartel, 50,000 prospectors have happily poured into the Cuango Valley of Angola. Furthermore, the prospectors are being protected by a private army of demobilized but armed Angolan soldiers. As one Johannesburg broker pointed out, "If you fly a patrol over the province you can get shot down by a missile. And it's a 100-mile river. You can't put a fence around it."

So far, DeBeers has been holding the line by buying up the "over-supply" caused by the influx of Angolan diamonds; this year, the cartel may be forced to buy no less than \$500 million in "illegal" Angolan diamonds, twice as much as that country's official output. Consequently, DeBeers is taking heavy losses; as a result, Julian Ogilvie Thompson, the arrogant and aristocratic chairman of DeBeers, was forced to announce that the company was slashing its dividend, for only the second time since World War II. Immediately, DeBeers' shares plummeted by one-third, taking with it much of the Johannesburg Stock Exchange.

Overall, DeBeers's CSO had to purchase \$4.8 billion of rough diamonds in 1992, while being able to sell only \$3.5 billion. This huge pileup of inventory could break the cartel price; to stave off such a perceived disaster, DeBeers ordered cartel members to cut back 2.5 percent on the diamonds they had already contracted to market through the cartel. Such a large cutback sets the stage for individual firms to sneak supplies into the market and evade the cartel restrictions.

No wonder that Sir Harry Oppenheimer, the octogenarian head of DeBeers, decided to "vacation" in Russia at the end of August, presumably to persuade the Russians to resist any temptation to engage in free-market competition in the diamond market. With luck, however, the forces of free competition—as well as the world's consumers of diamonds—may triumph.

5. *Triangular Intervention: Price Control*

A triangular intervention occurs when an intervener either compels a pair of people to make an exchange or prohibits them from making an exchange. The coercion may be imposed on the *terms* of the exchange or on the nature of one or both of the products being exchanged or on the people doing the exchanging. The former type of triangular intervention is called a *price control*, because it deals specifically with the terms, i.e., the price, at which the exchange is made; the latter may be called *product control*, as dealing specifically with the nature of the product or of the producer. An example of price control is a decree by the government that no one may buy or sell a certain product at more (or, alternatively, less) than X gold ounces per pound; an example of product control is the prohibition of the sale of this product or prohibition of the sale by any but certain persons selected by the government. Clearly both forms of control have various repercussions on both the price and the nature of the product.

A price control may be effective or ineffective. It will be ineffective if the regulation has no influence on the market price. Thus, if automobiles are selling at 100 gold ounces on the market, and the government decrees that no autos be sold for more than 300 ounces, on pain of punishment inflicted on violators, the decree is at present completely academic and ineffective.¹⁹ However, should a customer wish to order an unusual custom-built automobile for which the seller would charge over 300 ounces, then the regulation *now* becomes effective and changes transactions from what they would have been on the free market.

There are two types of effective price control: a *maximum* price control that prohibits all exchanges of a good above a certain price, with the controlled price being *below* the market equilibrium price; and a *minimum* price control prohibiting

¹⁹Of course, even a completely ineffective triangular control is likely to increase the government bureaucracy dealing with the matter and therefore increase the total amount of *binary* intervention over the taxpayer. But more on this below.

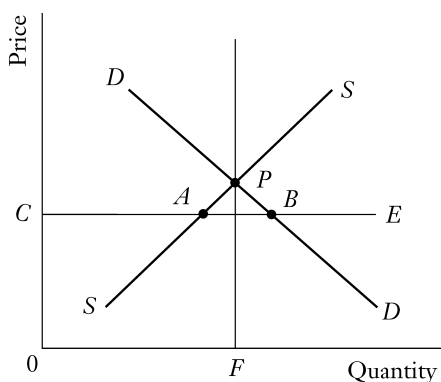


FIGURE 83. EFFECT OF A MAXIMUM PRICE CONTROL

exchanges below a certain price, this fixed price being *above* market equilibrium. Let Figure 83 depict the supply and demand curves for a good subjected to maximum price control: DD and SS are the demand and supply curves for the good. FP is the equilibrium price set by the market. The government, let us assume, imposes a maximum control price OC , above which any sale is illegal. At the control price, the market is no longer cleared, and the quantity demanded exceeds the quantity supplied by amount AB . In this way, an artificially created shortage of the good has been created. In any shortage, consumers rush to buy goods which are not available at the price. Some must do without, others must patronize the market, revived as illegal or “black,” paying a premium for the risk of punishment that sellers now undergo. The chief characteristic of a price maximum is the queue, the endless “lining up” for goods that are not sufficient to supply the people at the rear of the line. All sorts of subterfuges are invented by people desperately seeking to arrive at the clearance of supply and demand once provided by the market. “Under-the-table” deals, bribes, favoritism for older customers, etc., are inevitable features of a market shackled by the price maximum.²⁰

²⁰A “bribe” is only payment of the market price by a buyer.

It must be noted that, even if the stock of a good is frozen for the foreseeable future and the supply line is vertical, this artificial shortage will still develop and all these consequences ensue. The more “elastic” the supply, i.e., the more resources shift out of production, the more aggravated, *ceteris paribus*, the shortage will be. The firms that leave production are the ones nearest the margin. If the price control is “selective,” i.e., is imposed on one or a few products, the economy will not be as universally dislocated as under general maxima, but the artificial shortage created in the particular line will be even more pronounced, since entrepreneurs and factors can shift to the production and sale of other products (preferably substitutes). The prices of the substitutes will go up as the “excess” demand is channeled off in their direction. In the light of this fact, the typical governmental reason for selective price control—“We must impose controls on this necessary product so long as it continues in short supply”—is revealed to be an almost ludicrous error. For the truth is the reverse: price control creates an artificial shortage of the product, which continues *as long as* the control is in existence—in fact, becomes ever worse as resources have time to shift to other products. If the government were really worried about the short supply of certain products, it would go out of its way *not* to impose maximum price controls upon them.

Before investigating further the effects of general price maxima, let us analyze the consequences of a *minimum* price control, i.e., the imposition of a price *above* the free-market price. This may be depicted in Figure 84. *DD* and *SS* are the demand and supply curves respectively. *OC* is the control price and *FP* the market equilibrium price. At *OC*, the quantity demanded is less than the quantity supplied, by the amount *AB*. Thus, while the effect of a maximum price is to create an artificial shortage, a minimum price creates an artificial unsold surplus, *AB*. The unsold surplus exists even if the *SS* line is vertical, but a more elastic supply will, *ceteris paribus*, aggravate the surplus. Once again, the market is not cleared. The artificially high price at first attracts resources into the field, while, at the

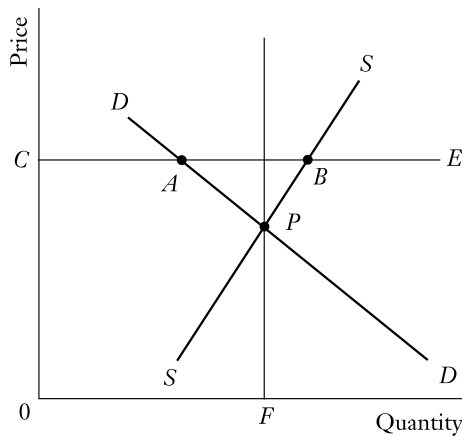


FIGURE 84. EFFECT OF A MINIMUM PRICE CONTROL

same time, discouraging buyer demand. Under selective price control, resources will leave other fields where they benefit themselves and consumers better, and transfer to this field, where they overproduce and suffer losses as a result.

This offers an interesting example of intervention tampering with the market and causing entrepreneurial losses. Entrepreneurs operate on the basis of certain criteria: prices, interest rate, etc., established by the free market. Interventionary tampering with these signals destroys the continual market tendency to adjustment and brings about losses and misallocation of resources in satisfying consumer wants.

General, over-all price maxima dislocate the entire economy and deny consumers the enjoyment of substitutes. General price maxima are usually imposed for the announced purpose of “preventing inflation”—invariably while the government is inflating the money supply by a large amount. Over-all price maxima are equivalent to imposing a *minimum* on the PPM (see Figure 85): OF (or $S_m S_m$) is the money stock in the society; $D_m D_m$ the social demand for money; FP is the equilibrium PPM (purchasing power of the monetary unit) set by the market. An imposed minimum PPM above the market (OC) injures the clearing “mechanism” of the market. At OC the money stock

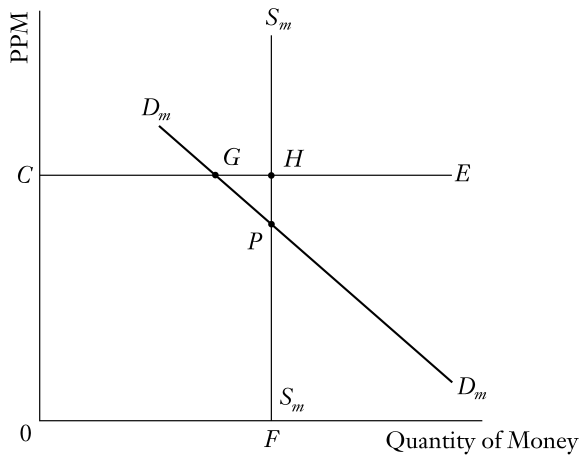


FIGURE 85. EFFECT OF IMPOSING GENERAL PRICE MAXIMA

exceeds the money demanded. As a result, people possess a quantity of money GH in “unsold surplus.” They try to sell their money by buying goods, but they cannot. Their money is anesthetized. To the extent that a government’s over-all price maximum is effective, a part of people’s money becomes useless, for it cannot be exchanged. But a mad scramble inevitably ensues, with each person hoping that *his* money can be used.²¹ Favoritism, lining up, bribes, etc., inevitably abound, as well as great pressure for a “black” market (i.e., *the* market) to provide a channel for the surplus money.

A general price minimum is equivalent to a *maximum* control on the PPM. This sets up an unsatisfied, excess, demand for money over the stock of money available—specifically, in the form of unsold stocks of goods in every field.

²¹Ironically, the government’s destruction of part of the people’s money almost always takes place *after* the government has pumped in new money and used it for its own purposes. The injury that the government imposes on the public is twofold: (1) it takes resources away from the public by inflating the currency (see below); and (2) after the money has percolated down to the public, it destroys part of the money’s usefulness.

The principles of maximum and minimum price control apply to *any* prices, whatever they may be: of consumers' goods, capital goods, land or labor services, or, as we have seen, the "price" of money in terms of other goods. They apply, for example, to minimum wage laws. When a minimum wage law is effective, i.e., where it imposes a wage above the market value of a grade of labor (above the laborer's discounted marginal value product), the supply of labor services exceeds the demand, and the "unsold surplus" of labor services means *involuntary mass unemployment*. Selective, as opposed to general, minimum wage rates, create unemployment in particular industries and tend to perpetuate these pockets by attracting labor to the higher rates. Labor is eventually forced to enter less remunerative, less value-productive lines. This analysis applies whether the minimum wage is imposed by the State or by a labor union.

The reader is referred to chapter 10 above for an analysis of the rare case of a minimum wage imposed by a *voluntary* union. We saw that this creates unemployment and shifts labor to less remunerative and value-productive branches of employment, *but* that these results must be treated as voluntary. To prohibit people from joining unions and agreeing voluntarily on union wage scales and on the *mystique* of unionism would subject workers by force to the dictates of consumers and would impose a welfare loss upon the former. However, as we stated above, a spread among the workers of praxeological knowledge, of a realization that union solidarity causes unemployment and lower wage rates for many workers, would probably weaken this solidarity considerably. Empirically, on the other hand, almost all cases of effective unionism are imposed through coercion exercised by unions, i.e., through union *intervention* in the market.²² The effects of union intervention are then the same as the

²²In the present-day United States, much of the task of coercion has been assumed on the unions' behalf by the government. This was the essence of the Wagner Act, the law of the land since 1935. (The

same degree of government intervention would have been. As we have pointed out, the analysis of intervention applies to *whatever* agency wields the violence, whether private or governmental. Unemployment and misallocations of many workers to less efficient and lower-paying jobs again occur in this case and again involuntarily.

Our analysis of the effects of price control applies also, as Mises has brilliantly shown, to control over the price (“exchange rate”) of one money in terms of another.²³ This was partially seen in Gresham’s Law, one of the first economic laws to be discovered. Few have realized that this law is merely a specific instance of the general consequences of price controls. Perhaps this failure is due to the misleading formulation of Gresham’s Law, which is usually phrased: “Bad money drives good money out of circulation.” Taken at its face value, this is a paradox that violates the general rule of the market that the best methods of satisfying consumers tend to win out over the poorer. The phrasing has been fallaciously used even by those who generally favor the free market, to justify a State monopoly

Taft-Hartley Act was only a relatively unimportant amendment to the Wagner Act, which continues on the books.) The crucial provisions of this act are: (1) to coerce all workers in a certain production unit (arbitrarily defined *ad hoc* by the government) into being represented by a union in bargaining with an employer, if a majority of workers agree; (2) to prohibit the employer from refusing to hire union members or union organizers; and (3) to compel the employer to bargain with this union. Thus, unions have been invested with governmental authority, and the strong arm of the government uses coercion to force workers and employers alike to deal with the unions. On special coercive privilege granted to unions, *see also* Roscoe Pound, “Legal Immunities of Labor Unions” in *Labor Unions and Public Policy* (Washington, D.C.: American Enterprise Association, 1958), pp. 145–73; and Frank H. Knight, “Wages and Labor Union Action in the Light of Economic Analysis” in Bradley, *Public Stake in Union Power*, p. 43. *Also see* Petro, *Power Unlimited*, and chapter 10, pp. 714–15 above.

²³Mises, *Human Action*, pp. 432 n., 447, 469, 776.

CHAPTER 14

Airport Congestion: A Case of Market Failure?

The press touted it as yet another chapter in the unending success story of “government-business cooperation.” The traditional tale is that a glaring problem arises, caused by the unchecked and selfish actions of capitalist greed. And that then a wise and farsighted government agency, seeing deeply and having only the public interest at heart, steps in and corrects the failure, its sage regulations gently but firmly bending private actions to the common good.

The latest chapter began in the summer of 1984, when it came to light that the public was suffering under a 73 percent increase in the number of delayed flights compared to the previous year. To the Federal Aviation Agency (FAA) and other agencies of government, the villain of the piece was clear. Its own imposed quotas on the number of flights at the nation’s airports had been lifted at the beginning of the year, and, in response to this deregulation, the shortsighted airlines, each pursuing its own profits, overscheduled their flights in the highly remunerative peak hours of the day. The congestion and delays occurred at these hours, largely at the biggest and most used airports. The FAA soon made it clear that it was prepared to impose detailed, minute-by-minute maximum limits on takeoffs and landings at each airport, and threatened to do so if the airlines themselves did

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not come up with an acceptable plan. Under this bludgeoning, the airlines came up with a “voluntary” plan that was duly approved at the end of October, a plan that imposed maximum quotas of flights at the peak hours. Government-business cooperation had supposedly triumphed once more.

The real saga, however, is considerably less cheering. From the beginning of the airline industry until 1978, the Civil Aeronautics Board (CAB) imposed a coerced cartelization on the industry, parceling out routes to favored airlines, and severely limiting competition, and keeping fares far over the free-market price. Largely due to the efforts of CAB chairman and economist Alfred E. Kahn, the Airline Deregulation Act was passed in 1978, deregulating routes, flights, and prices, and abolishing the CAB at the end of 1984.

What has really happened is that the FAA, previously limited to safety regulation and the nationalization of air traffic control services, has since then moved in to take up the torch of cartelization lost by the CAB. When President Reagan fired the air-controllers during the PATCO strike in 1981, a little-heralded consequence was that the FAA stepped in to impose coerced maxima of flights at the various airports, all in the name of rationing scarce air-control services. An end of the air-controller crisis led the FAA to remove the controls in early 1984, but now here they are more than back again as a result of the congestion.

Furthermore, the quotas are now in force at the six top airports. Leading the parade in calling for the controls was Eastern Airlines, whose services using Kennedy and LaGuardia airports have, in recent years, been outcompeted by scrappy new People’s Express, whose operations have vaulted Newark Airport from a virtual ghost airport to one of the top six (along with LaGuardia, Kennedy, Denver, Atlanta, and O’Hare at Chicago.) In imposing the “voluntary” quotas, it does not seem accidental that the peak hour flights at Newark Airport were drastically reduced (from 100 to 68), while the LaGuardia and Kennedy peak hour flights were actually increased.

But, in any case, was the peak hour congestion a case of market failure? Whenever economists see a shortage, they are trained to look immediately for the maximum price control below the free market. And sure enough, this is what has happened. We must realize that all commercial airports in this country are government-owned and operated—all by local governments except Dulles and National, owned by the federal government. And governments are not interested, as is private enterprise, in rational pricing, that is, in a pricing that achieves the greatest profits.

Other political considerations invariably take over. And so every airport charges fees for its “slots” (landing and takeoff spots on its runways) far below the market-clearing price that would be achieved under private ownership. Hence congestion occurs at valuable peak hours, with private corporate jets taking up space from which they would obviously be out-competed by the large commercial airliners. The only genuine solution to airport congestion is to impose market-clearing pricing, with far higher slot fees at peak than at non-peak hours. And this would accomplish the task while encouraging rather than crippling competition by the compulsory rating of underpriced slots imposed by the FAA. But such rational pricing will only be achieved when airports are privatized—taken out of the inefficient and political control of government.

There is also another important area to be privatized. Air control services are a compulsory monopoly of the federal government, under the aegis of the FAA. Even though the FAA promised to be back to pre-strike air control capacity by 1983, it still employs 19 percent fewer air controllers than before the strike, all trying to handle 6 percent greater traffic.

Once again, the genuine solution is to privatize air-traffic control. There is no real reason why pilots, aircraft companies, and all other aspects of the airline industry can be private, but that somehow air control must always remain a nationalized service. Upon the privatization of air control, it will be possible to send the FAA to join the CAB in the forgotten scrap heap of history.

CHAPTER 15

The Union Problem

Labor unions are flexing their muscles again. Last year, a strike against the *New York Daily News* succeeded in inflicting such losses upon the company that it was forced to sell cheap to British tycoon Robert Maxwell, who was willing to accept union terms. Earlier, the bus drivers' union struck Greyhound and managed to win a long and bloody strike. How were the unions able to win these strikes, even though unions have been declining in numbers and popularity since the end of World War II? The answer is simple: in both cases, management hired replacement workers and tried to keep producing. In both cases, systematic violence was employed against the product and against the replacement workers.

In the *Daily News* strike, the *Chicago Tribune* Company, which owned the *News*, apparently did not realize that the New York drivers' union had traditionally been in the hands of thugs and goons; what the union apparently did was commit continuing violence against the newsstands—injuring the newsdealers and destroying their stands, until none would carry the *News*. The police, as is typical almost everywhere outside the South, were instructed to remain “neutral” in labor disputes, that is, look the other way when unions employ gangster tactics against employers and non-striking workers. In fact, the only copies of the *News*

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visible during the long strike were those sold directly to the homeless, who peddled them in subways. Apparently, the union felt that beating up or killing the homeless would not do much for its public relations image. In the Greyhound strike, snipers repeatedly shot at the buses, injuring drivers and passengers. In short, the use of violence is the key to the winning of strikes.

Union history in America is filled with romanticized and overblown stories about violent strikes: the Pullman strike, the Homestead strike, and so on. Since labor historians have almost all been biased in favor of unions, they strongly imply that almost all the violence was committed by the employer's guards, wantonly beating up strikers or union organizers. The facts are quite the opposite. Almost all the violence was committed by union goon squads against the property of the employer, and in particular, against the replacement workers, invariably smeared and dehumanized with the ugly word "scabs." (Talk about demeaning language!)

The reason unions are to blame is inherent in the situation. Employers don't want violence; all they want is peace and quiet, the unhampered and peaceful production and shipment of goods. Violence is disruptive, and is bound to injure the profits of the company. But the victory of unions depends on making it impossible for the company to continue in production, and therefore they must zero in on their direct competitors, the workers who are replacing them.

Pro-union apologists often insist that workers have a "right to strike." No one denies that. Few people—except for panicky instances where, for example, President Truman threatened to draft striking steel workers into the army and force them back into the factories—advocate forced labor. Everyone surely has the right to quit. But that's not the issue. The issue is whether the employer has the right to hire replacement workers and continue in production.

Unions are now flexing their muscle politically as well, to pass legislation in Congress to prohibit employers from hiring permanent replacement workers, that is, from telling the strikers, in effect: "OK, you quit, so long!" Right now, employers are already severely restricted in this right: they cannot hire permanent replacement workers, that is, fire the strikers, in any strikes over "unfair labor" practices. What Congress should do is extend the right to fire to these "unfair labor" cases as well.

In addition to their habitual use of violence, the entire theory of labor unions is deeply flawed. Their view is that the worker somehow "owns"

his job, and that therefore it should be illegal for an employer to bid permanent farewell to striking workers. The “ownership of jobs” is of course a clear violation of the property right of the employer to fire or not hire anyone he wants. No one has a “right to a job” in the future; one only has the right to be paid for work contracted and already performed. No one should have the “right” to have his hand in the pocket of his employer forever; that is not a “right” but a systematic theft of other people’s property.

Even when the union does not commit violence directly, it should be clear that the much revered picket line, sanctified in song and story, is nothing but a thuggish attempt to intimidate workers or customers from crossing the line. The idea that picketing is simply a method of “free expression” is ludicrous: if you want to inform a town that there’s a strike, you can have just one picket, or still less invasively, take out ads in the local media. But even if there is only one picket, the question then arises: on whose property does one have the right to picket, or to convey information? Right now, the courts are confused or inconsistent on the question: do strikers have the right to picket on the property of the targeted employer? This is clearly an invasion of the property right of the employer, who is forced to accept a trespasser whose express purpose is to denounce him and injure his business.

What of the question: does the union have the right to picket on the sidewalk in front of a plant or of a struck firm? So far, that right has been accepted readily by the courts. But the sidewalk is usually the responsibility of the owner of the building abutting it, who must maintain it, keep it unclogged, etc. In a sense, then, the building owner also “owns” the sidewalk, and therefore the general ban on picketing on private property should also apply here.

The union problem in the United States boils down to two conditions in crying need of reform. One is the systematic violence used by striking unions. That can be remedied, on the local level, by instructing the cops to defend private property, including that of employers; and, on the federal level by repealing the infamous Norris-LaGuardia Act of 1932, which prohibits the federal courts from issuing injunctions against the use of violence in labor disputes.

Before 1932, these injunctions were highly effective in blocking union violence. The act was passed on the basis of much-esteemed but phony

research by Felix Frankfurter, who falsely claimed that the injunctions had been issued not against violence but against strikes *per se*.¹

The second vital step is to repeal the sainted “Wagner Act” (National Labor Relations Act) of 1935, which still remains, despite modifications, the fundamental law of labor unions in the United States, and in those states that have patterned themselves after federal law. The Wagner Act is misleadingly referred to in economics texts as the bill that “guarantees labor the right to bargain collectively.” Bunk. Labor unions have always had that right. What the Wagner Act did was to force employers to bargain collectively “in good faith” with any union which the federal National Labor Relations Board decides has been chosen in an NLRB election by a majority of the “bargaining unit”—a unit which is defined arbitrarily by the NLRB.

Workers in the unit who voted for another union, or for no union at all, are forced by the law to be “represented” by that union. To establish this compulsory collective bargaining, employers are prevented from firing union organizers, are forced to supply unions with organizing space, and are forbidden to “discriminate” against union organizers.

In other words, we have been suffering from compulsory collective bargaining since 1935. Unions will never meet on a “fair playing field” and we will never have a free economy until the Wagner and Norris-LaGuardia Acts are scrapped as a crucial part of the statism that began to grip this country in the New Deal, and has never been removed.

¹For a masterful and definitive refutation of Frankfurter, which unfortunately came a half-century too late, see Sylvester Petro, “Unions and the Southern Courts—The Conspiracy and Tort Foundations of Labor Injunction,” *The North Carolina Law Review* (March 1982): 544–629.

CHAPTER 16

Outlawing Jobs: The Minimum Wage, Once More

There is no clearer demonstration of the essential identity of the two political parties than their position on the minimum wage. The Democrats proposed to raise the legal minimum wage from \$3.35 an hour, to which it had been raised by the Reagan administration during its allegedly free-market salad days in 1981. The Republican counter was to allow a “sub-minimum” wage for teenagers, who, as marginal workers, are the ones who are indeed hardest hit by any legal minimum.

This stand was quickly modified by the Republicans in Congress, who proceeded to argue for a teenage subminimum that would last only a piddling ninety days, after which the rate would rise to the higher Democratic minimum (of \$4.55 an hour). It was left, ironically enough, for Senator Edward Kennedy to point out the ludicrous economic effect of this proposal: to induce employers to hire teenagers and then fire them after eighty-nine days, to rehire others the day after.

Finally, and characteristically, George Bush got the Republicans out of this hole by throwing in the towel altogether, and plumping for a Democratic plan, period. We were left with the Democrats forthrightly proposing a big increase in the minimum wage, and the Republicans, after a series of illogical waffles, finally going along with the program.

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In truth, there is only one way to regard a minimum wage law: it is *compulsory unemployment*, period. The law says: it is illegal, and therefore criminal, for anyone to hire anyone else below the level of X dollars an hour. This means, plainly and simply, that a large number of free and voluntary wage contracts are now outlawed and hence that there will be a large amount of unemployment. Remember that the minimum wage law provides no jobs; it only outlaws them; and outlawed jobs are the inevitable result.

All demand curves are falling, and the demand for hiring labor is no exception. Hence, laws that prohibit employment at any wage that is relevant to the market (a minimum wage of 10 cents an hour would have little or no impact) must result in outlawing employment and hence causing unemployment.

If the minimum wage is, in short, raised from \$3.35 to \$4.55 an hour, the consequence is to disemploy, permanently, those who would have been hired at rates in between these two rates. Since the demand curve for any sort of labor (as for any factor of production) is set by the perceived marginal productivity of that labor, this means that the people who will be disemployed and devastated by this prohibition will be precisely the “marginal” (lowest wage) workers, e.g., blacks and teenagers, the very workers whom the advocates of the minimum wage are claiming to foster and protect.

The advocates of the minimum wage and its periodic boosting reply that all this is scare talk and that minimum wage rates do not and never have caused any unemployment. The proper riposte is to raise them one better; all right, if the minimum wage is such a wonderful anti-poverty measure, and can have no unemployment-raising effects, why are you such pikers? Why you are helping the working poor by such piddling amounts? Why stop at \$4.55 an hour? Why not \$10 an hour? \$100? \$1,000?

It is obvious that the minimum wage advocates do not pursue their own logic, because if they push it to such heights, virtually the entire labor force will be disemployed. In short, *you can have as much unemployment as you want*, simply by pushing the legally minimum wage high enough.

It is conventional among economists to be polite, to assume that economic fallacy is solely the result of intellectual error. But there are times when decorousness is seriously misleading, or, as Oscar Wilde once wrote, “when speaking one’s mind becomes more than a duty; it becomes a positive pleasure.” For if proponents of the higher minimum wage were simply

wrong-headed people of good will, they would not stop at \$3 or \$4 an hour, but indeed would pursue their dimwit logic into the stratosphere.

The fact is that they have always been shrewd enough to stop their minimum wage demands at the point where only marginal workers are affected, and where there is no danger of disemploying, for example, white adult male workers with union seniority. When we see that the most ardent advocates of the minimum wage law have been the AFL-CIO, and that the concrete effect of the minimum wage laws has been to cripple the low-wage competition of the marginal workers as against higher-wage workers with union seniority, the true motivation of the agitation for the minimum wage becomes apparent.

This is only one of a large number of cases where a seemingly purblind persistence in economic fallacy only serves as a mask for special privilege at the expense of those who are supposedly to be “helped.”

In the current agitation, inflation—supposedly brought to a halt by the Reagan administration—has eroded the impact of the last minimum wage hike in 1981, reducing the real impact of the minimum wage by 23 percent. Partially as a result, the unemployment rate has fallen from 11 percent in 1982 to under 6 percent in 1988. Possibly chagrined by this drop, the AFL-CIO and its allies are pushing to rectify this condition, and to boost the minimum wage rate by 34 percent.

Once in a while, AFL-CIO economists and other knowledgeable liberals will drop their mask of economic fallacy and candidly admit that their actions will cause unemployment; they then proceed to justify themselves by claiming that it is more “dignified” for a worker to be on welfare than to work at a low wage. This of course, is the doctrine of many people on welfare themselves. It is truly a strange concept of “dignity” that has been fostered by the interlocking minimum wage-welfare system.

Unfortunately, this system does not give those numerous workers who still prefer to be producers rather than parasites the privilege of making their own free choice.

Monopolistic grants can be either direct and evident, such as compulsory cartels or licenses; less direct, such as tariffs; or highly indirect, but nevertheless powerful. Ordinances closing businesses at specific hours, for example, or outlawing pushcart peddlers or door-to-door salesmen, are illustrations of laws that forcibly exclude competition and thereby grant monopolistic privileges. Similarly, *antitrust laws* and prosecutions, while seemingly designed to “combat monopoly” and “promote competition,” actually do the reverse, for they coercively penalize and repress efficient forms of market structure and activity. Even such a seemingly remote action as conscription has the effect of forcibly withdrawing young men from the labor market and thereby giving their competitors a monopolistic, or rather a *restrictionist*, wage.²⁸ Unfortunately, we have not the space here to investigate these and other instructive cases.

7. Binary Intervention: The Government Budget

Binary intervention occurs, we have seen, when the intervener forces someone to transfer property to him. All government rests

We might note here that on a truly free market there would be no need for any separate “theory of international trade.” Nations become significant economically only with government intervention, either by way of monetary intervention or barriers to trade.

²⁸Monopolistic privileges to *businesses may* confer a monopoly price, depending on the elasticity of the firm’s demand curve. Privileges to workers, on the other hand, *always* confer a higher, restrictionist price at lower than free-market output. The reason is that a business can expand or contract its production at will; if, then, a few firms are granted the privilege of producing in a certain field, they may expand production, if conditions are ripe, and *not* reduce total supply. On the other hand, aside from hours worked, which is not very flexible, restriction of entry into a labor market must *always* reduce the total supply of labor in that industry and therefore confer a restrictionist price. Of course, a *direct* restriction on production such as conservation laws always reduces supply and thereby confers a restrictionist price.

on the coerced levy of *taxation*, which is therefore a prime example of binary intervention. Government intervention, consequently, is not only triangular, like price control; it may also be binary, like taxation, and is therefore imbedded into the very nature of government and governmental activity.

For years, writers on public finance have been searching for the “neutral tax,” i.e., for that system of taxes which would keep the free market intact. The object of this search is altogether chimerical. For example, economists have often sought uniformity of taxes, so that each person, or at least each person in the same income bracket, pays the same amount of tax. But this is inherently impossible, as we have already seen from Calhoun’s demonstration that the community is inevitably divided into *taxpayers* and *tax-consumers*, who, of course, cannot be said to pay taxes at all. To repeat the keen analysis of Calhoun (see note 6 above): “nor can it be otherwise; unless what is collected from each individual in the shape of taxes shall be returned to him in disbursements, which would make the process nugatory and absurd.” In short, government bureaucrats *do not pay* taxes; they *consume* the tax proceeds. If a private citizen earning \$10,000 income pays \$2,000 in taxes, the bureaucrat earning \$10,000 does not *really* pay \$2,000 in taxes also; that he supposedly does is simply a bookkeeping fiction.²⁹ He is *actually* acquiring an income of \$8,000 and paying no taxes at all.

Not only bureaucrats will be tax-consumers, but, to a lesser degree, other, private members of the population as well. For example, suppose that the government taxes \$1,000 away from private people who would have spent the money on jewels, and uses it to purchase paper for government offices. This induces a shift in demand away from jewels and toward paper, a decline in

²⁹It will be more convenient to use dollars rather than gold ounces in this section; but we still assume complete equivalence of dollars and gold weights. We do not consider *monetary* intervention until the end of this chapter.

the price of jewels, and a flow of resources from the jewelry industry; conversely, paper prices will tend to increase, and resources will flow into the paper industry. Incomes will decline in the jewelry industry and rise in paper.³⁰ Hence, the paper industry will be, to some extent, beneficiaries of the government budget: of the tax-and-expenditure process of government. But not just the paper industry. For the new money received by the paper firms will be paid out to their suppliers and original factor-owners, and so on as the ripples impinge on other parts of the economy. On the other hand, the jewelry industry, stripped of revenue, reduces *its* demands for factors. Thus the burdens and benefits of the tax-and-expenditure process diffuse themselves throughout the economy, with the strongest impact at the points of first contact—jewelry and paper.³¹

Everyone in the society will be either a net taxpayer or a tax-consumer and this to different degrees, and it will be for the data of each specific case to determine where any particular person or industry stands in this distribution process. The only certainty is that the bureaucrat or politician in office receives 100 percent of his governmental income from tax proceeds and pays no genuine taxes in return.

The tax-and-expenditure process, therefore, will inevitably distort the allocation of productive factors, the types of goods produced, and the pattern of incomes, from what they would be on the free market. The larger the *level* of taxing and spending, i.e., the bigger the government budget, the greater the distortion will tend to be. And moreover, the larger the budget in relation

³⁰This does not mean that resources will flow directly out of jewelry and into paper. It is more likely that resources will flow into and out of industries similar to each other, occupationally and geographically, and that resources will readjust, step by step, from one industry to the next.

³¹In the long run of the ERE, of course, all firms in all industries earn a uniform interest return, and the bulk of the gains or losses are imputed back to the original specific factors.

to market activity, the greater the burden of government on the economy. A larger burden means that more and more resources of society are being coercively siphoned off from the producers into the pockets of government, those who sell to government, and the subsidized favorites of government. In short, the higher the relative level of government, the narrower the base of the producers, and the greater the “take” of those expropriating the producers. The higher the level of government, the less resources will be used to satisfy the desires of those consumers who have contributed to production, and the more resources will be used to satisfy the desires of nonproducing consumers.

There has been a great deal of controversy among economists on how to approach the analysis of taxation. Old-fashioned Marshallians insist on the “partial equilibrium” approach of looking only at a particular type of tax, in isolation, and then analyzing its effects; Walrasians, more fashionable today (and exemplified by the late Italian public finance expert, Antonio De Viti De Marco), insist that taxes cannot be considered at all in isolation, that they may be analyzed only in conjunction with what the government does with the proceeds. In all this, what would be the “Austrian” approach, had it been developed, is being neglected. This holds that both procedures are legitimate and necessary to analyze the taxing process fully. In short: the level of taxes-and-expenditures may be analyzed and its inevitable redistributive and distortive effects discussed; and, *within* this aggregate of taxes, individual types of taxes may then be analyzed in isolation. Neither the partial nor the general approaches should be overlooked.

There has also been a great amount of useless controversy about *which* activity of government imposes the burden on the private sector: *taxation* or *government spending*. It is actually futile to separate them, since they are both stages in the same process of burden and redistribution. Thus, suppose the government taxes the betel-nut industry one million dollars in order to buy paper for government bureaus. One million dollars’ worth of resources are shifted from betel nuts to paper.

This is done in *two* stages, a sort of one-two punch at the free market: first, the betel-nut industry is made poorer by taking away its money; then, the government uses this money to take paper out of the market for its own use, thus extracting resources in the second stage. Both sides of the process are a burden. In a sense, the betel-nut industry is compelled to *pay for* the extraction of paper from society; at least, it bears the immediate brunt of payment. However, even without yet considering the “partial equilibrium” problem of how or whether such taxes are “shifted” by the betel-nut industry onto other shoulders, we should also note that it is not the only one to pay; the consumers of paper certainly pay by finding paper prices raised to them.

The process can be seen more clearly if we consider what happens when taxes and government expenditures are *not* equal, when they are not simply obverse sides of the same coin. When taxes are less than government expenditures (and omitting borrowing from the public for the time being), the government creates new money. It is obvious here that government *expenditures* are the main burden, since this higher amount of resources is being siphoned off. In fact, as we shall see later when considering the binary intervention of *inflation*, creating new money is, anyway, a form of taxation.

But what of that rare case when taxation is higher than government spending? Say that the surplus is either hoarded in the government’s gold supply or that the money is liquidated through deflation (see below). Thus, assume that \$1,000,000 is taken from the betel-nut industry and only \$600,000 is spent on paper. In this case, the larger burden is that of taxation, which pays not only for the extracted paper but also for the hoarded or destroyed money. While the government extracts only \$600,000 worth of resources from the economy, the betel-nut industry loses \$1,000,000 of potential resources, and this loss should not be forgotten in toting up the burdens imposed by the government’s budgetary process. In short, when government expenditures and receipts differ, the “fiscal burden” on

society may be very approximately gauged by whichever is the greater total.

Since taxation cannot really be uniform, the government in its budgetary process of tax-and-spend inevitably takes coercively from Peter to give to Paul ("Paul," of course, including itself). In addition to distorting the allocation of resources, therefore, the budgetary process redistributes incomes or, rather, *distributes* incomes. For the free market does *not* distribute incomes; income there arises naturally and smoothly out of the market processes of production and exchange. Thus, the very concept of "distribution" as something separate from production and exchange can arise only from the government's binary intervention. It is often charged, for example, that the free market maximizes the utility of all, and the satisfactions of all consumers, only "*given* a certain existing distribution of income." But this common fallacy is incorrect; *there is no "assumed distribution" on the free market separate from the voluntary activities of every individual's production and exchange.* The only *given* on the free market is the *property right* of every man in his own person and in the resources which he finds, produces, or creates, or which he obtains in voluntary exchange for his products or as a gift from their producers.

The binary intervention of the government's budget, on the other hand, impairs this property right of every one in his own product and *creates* the separate process and the "problem" of distribution. No longer do income and wealth flow purely from service rendered on the market; they now flow to special privilege created by the State and away from those specially burdened by the State.

There are many economists who regard the "free market" as only being free of triangular interference; such binary interference as taxation is not considered intervention in the purity of the "free market." The economists of the Chicago School—headed by Frank H. Knight—have been particularly adept at splitting man's economic activity and confining the "market" to

a narrow compass. They can thus favor the “free market” (because they oppose such triangular interventions as price control), while advocating drastic binary interventions in taxes and subsidies to “redistribute” the income determined by that market. In short, the market is to be left “free” in one sphere, while being subject to perpetual harassment and reshuffling by outside coercion. This concept assumes that man is fragmented, that the “market man” is not concerned with what happens to himself as a “subject-to-government” man. This is surely an impermissible myth, which we might call the “tax illusion”—the idea that people do not consider what they earn *after* taxes, but only before taxes. In short, if A earns \$9,000 a year on the market, B \$5,000, and C \$1,000, and the government decides to keep redistributing the incomes so that each earns \$5,000, the individuals, apprised of this, are *not* going to keep foolishly assuming that they are still earning what they did before. They are going to take the taxes and subsidies into account.³²

Thus, we see that the government budgetary process is a coercive shift of resources and incomes from producers on the market to nonproducers; it is also a coercive interference with the free choices of individuals by those constituting the government. Below, we shall analyze the nature and consequences of government spending in more detail. At this time, let us emphasize the important point that government cannot be in any way a fountain of resources; all that it spends, all that it distributes in largesse, it must first acquire in revenue, i.e., it must first extract from the “private sector.” The great bulk of the revenues of government, the very nub of its power and its essence, is taxation, to which we turn in the next section. Another method is inflation, the creation of new money, which we shall discuss further below. A third method is borrowing

³²For a further discussion of the economic effects of taxation, see the next section below.

from the public, which will be discussed briefly in Appendix A below.³³

8. *Binary Intervention: Taxation*

A. INCOME TAXATION

Taxation, as we have seen, takes from producers and gives to others. Any increase in taxation swells the resources, the incomes, and usually the numbers of those living off the producers, while *diminishing* the production base from which these others are drawing their sustenance. Clearly, this is eventually a self-defeating process: there is a limit beyond which the top-heavy burden can no longer be carried by the diminishing stock of producers. Narrower limits are also imposed by the *disincentive* effects of taxation. The greater the amount of taxes imposed on the producers—the *taxpayers*—the lower the marginal utility of work will be, for the returns from work are forcibly diminished, and the greater the marginal utility of leisure forgone. Not only that: the greater will be the incentive to shift from the ranks of the burdened taxpayers to the ranks of the *tax-consumers*, either as full-time bureaucrats or as those subsidized by the government. As a result, production will diminish even further, as people retreat to leisure or scramble harder to join the ranks of the privileged tax-consumers.³⁴ In

³³A fourth method, revenue from sale of governmental goods or services, is a peculiar form of taxation; at the very least, to *acquire* the original assets for this “business,” taxation is needed.

³⁴In the less developed countries, where a money economy is still emerging from barter, any given amount of taxation will have a still more drastic effect: for it will make *monetary* incomes much less worthwhile and will shift people’s efforts from trying to make money back to untaxed barter arrangements. Taxation can therefore decisively retard development from a barter to a monetary economy, or even reverse the process. See C. Lowell Harriss, “Public Finance” in Bernard F. Haley, ed., *A Survey of Contemporary Economics* (Homewood, Ill.: Richard D. Irwin, 1952),

the market economy, net incomes are derived from wages, interest, ground rents, and profit; and in so far as taxes strike at the earnings from these sources, attempts to earn these incomes will diminish. The laborer, faced with a tax on his wages, has less incentive to work hard; the capitalist, confronting a tax on his interest or profit return, has more incentive to consume rather than to save and invest. The landlord, a tax being imposed on his rents, will have less of a spur to allocate land sites efficiently.

It has been objected that since a man's marginal utility of money assets increases as he holds less of a stock of money, lower money income will mean an increased marginal utility of income. As a result, a tax on money incomes creates both a "substitution effect" against work and in favor of leisure (or against saving in favor of consumption) and an "income effect" working in the opposite direction. This is true, and in rare empirical cases, the latter effect will predominate. In plain language, this means that when extra penalties are placed upon man's efforts he will generally slacken them; but in some cases, he will work harder to try to offset the burdens. In the latter cases, however, we must remember that he will lose the valuable consumption good of "leisure"; he will have less leisure now than he would have if his choices were still free. Working harder under penalty is only a cause for rejoicing if we regard the matter exclusively from the point of view of those living off the producers, who will thereby benefit from the tax. The standard of living of the workers, which must include leisure, has fallen.

The income tax, by taxing income from investments, cripples saving and investment, since it lowers the return from investing

p. 264. For a practical application, see P.T. Bauer, "The Economic Development of Nigeria," *Journal of Political Economy*, October, 1955, pp. 400 ff.

If any government taxes in *kind*, there is then no span of time between taxation and the extraction of physical resources from the private sector. Both take place in the same act.

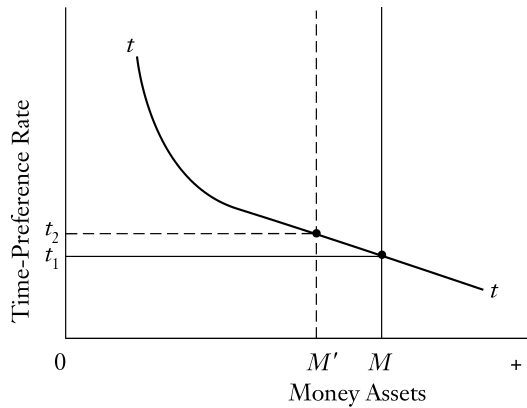


FIGURE 86. EFFECT OF INCOME TAX ON TAXPAYER'S RATIO OF CONSUMPTION TO SAVING AND INVESTMENT

below what free-market time preferences would dictate. The lower net interest return leads people to bring their savings-investment into line with the new realities; in short, the marginal savings and investments at the higher return will now be valued below consumption and will no longer be made.

There is another, unheralded reason why an income tax will particularly penalize saving and investment as against consumption. It might be thought that since the income tax confiscates a certain portion of a man's income and leaves him free to allocate the rest between consumption and investment, and since time preference schedules remain given, the proportion of consumption to saving will remain unchanged. But this ignores the fact that the taxpayer's real income and the real value of his monetary assets have been lowered by paying the tax. We have seen in chapter 6 that, given a man's time-preference schedule, the lower the level of his real monetary assets, the higher his time-preference rate will be, and therefore the higher the proportion of his consumption to investment. The taxpayer's position may be seen in Figure 86, which is essentially the reverse of the individual time-market diagrams in chapter 6. In the present case, money assets are *increasing* as we go rightward on

the horizontal axis, while in chapter 6 money assets were declining. Let us say that the taxpayer's initial position is a money stock of OM ; tt is his given time-preference curve. His *effective time-preference rate*, determining his consumption/investment proportion, is t_1 . Now, suppose that the government levies an income tax, reducing his initial monetary assets at the start of his spending period to OM' . His effective time-preference rate, the intersection of tt and the M' line, is now higher at t_2 . He shifts to a higher proportion of consumption and a lower proportion of saving and investment.³⁵

We have now seen two reasons why an income tax will shift the social proportion toward more consumption and less saving and investment. It might be objected that the time-preference reason is invalid, since the government officials and the people they subsidize will receive the tax revenues and find that *their* money stock has increased just as that of the taxpayers has declined. We shall see below, however, that no truly productive savings and investments can be made by government, its employees, or the recipients of its subsidies.

Some economists maintain that income taxation reduces savings and investment in society in yet a third way. They assert that income taxation, by its very nature, imposes a "double" tax on savings-investment as against consumption.³⁶ The reasoning

³⁵For this shift to occur, the individual's *real* monetary assets must decline, not just the nominal amount in terms of money. If, then, instead of this tax, there is deflation in the society, and the value of the monetary unit increases roughly proportionately everywhere, then the *nominal* fall in each individual's money stock will not be a *real* fall, and hence effective time-preference ratios will remain unchanged. In the case of income taxation, deflation will not occur, since the government will spend the revenue rather than contract the money supply. (Even in the rare case where all the tax money is liquidated by the government, the individuals taxed will lose more than others and hence will lose some real monetary assets.)

³⁶Thus, cf. Irving and Herbert W. Fisher, *Constructive Income Taxation* (New York: Harper & Bros., 1942). "Double" is used in the sense of *two* instances, not arithmetically twice.

runs as follows: Saving and consumption are really not symmetrical. All saving is directed toward enjoying more consumption in the future; otherwise, there would be no point at all to saving. Saving is abstaining from possible present consumption in return for the expectation of increased consumption at some time in the future. No one wants capital goods for their own sake. They are only the embodiment of increased consumption in the future. Saving-investment is Crusoe's building the stick to obtain more apples at a future date; it fructifies in higher consumption later. Hence, the imposition of an income tax is a "double" tax on consumption, and excessively penalizes saving and investment.³⁷

This line of reasoning correctly explains the investment-consumption process. It suffers, however, from a grave defect: it is irrelevant to problems of taxation. It is true that saving is a fructifying agent. But the point is that everyone knows this; that is precisely why people save. Yet, even though they know that saving is a fructifying agent, they do not save all their income. Why? Because of their time preferences for present consumption. Every individual, given his current income and value scales, allocates that income in the most desirable proportions between consumption, investment, and additions to his cash balance. Any other allocation would satisfy his desires less well and lower his position on his value scale. The fructifying power of saving is *already taken into account* when he makes his allocation. There is therefore no reason to say that an income tax doubly penalizes saving-investment; it penalizes the individual's entire standard of living, encompassing present consumption, future consumption, and his cash balance. It does not *per se* penalize saving any more than the other avenues of income allocation.

This Fisher argument reflects a curious tendency among economists devoted to the free market to be far more concerned

³⁷These economists generally conclude that not income, but only consumption, should be taxed as the only "real" income.

about governmental measures penalizing saving and investment than they are about measures hobbling consumption. Surely an economist favoring the free market must grant that the market's voluntary consumption/investment allocations are optimal and that any government interference in this proportion, *from either direction*, is distortive of that market and of production to meet the wants of the consumers. There is nothing, after all, particularly sacred about savings; they are simply the road to future consumption. But they are, then, clearly no more important than *present* consumption, the allocations between the two being determined by the time preferences of all individuals. The economist who balks more at interference with free-market savings than he does at infringement on free-market consumption is therefore implicitly advocating statist interference in the opposite direction. He is implicitly calling for a coerced distortion of resources to lower consumption and increase investment.³⁸

B. ATTEMPTS AT NEUTRAL TAXATION

So far, we have discussed the impact of a tax on an individual considered by himself. Equally important is the distortion of the market's *pattern* of factor prices and incomes, created by the way taxes bear down upon different people. The free market determines an intricate, almost infinite array and structure of prices, rates, and incomes. The imposition of different taxes disrupts these patterns and cripples the market's work of allocating resources and output. Thus, if firm A pays \$5,000 a year for a

³⁸The bias in favor of investment, or "growth," as against present consumption, is similar to the conservationist attack on present consumption. What is so worthy about *future* consumption and so unworthy about consuming in the *present*? Perhaps what we have here is an illicit smuggling of the less rational aspects of the "Protestant ethic" into economic science. Of the many problems involved, we may mention one here: What nonarbitrary quantitative standards for thrift can the economist establish once the free market's decision is overridden?

certain type of labor, and firm B pays \$3,000, laborers will tend to shift from B to A and thereby more efficiently serve the wants of consumers. But if the income earned at firm A is taxed \$2,000 per annum, while income at B is taxed negligibly or not at all, the market inducement to move from B to A will totally or virtually disappear, perpetuating a misallocation of productive resources and hampering the growth and even the existence of firm A.

We have seen above that the quest for a *neutral tax*—a tax neutral to the market, leaving the market roughly as it was before the tax was imposed—is a hopeless venture. For there can be no uniformity in paying taxes when some people in society are necessarily taxpayers, while others are privileged tax-consumers. But even if we disregard these objections and fail to consider the redistributionist effects of government *spending* out of tax revenues, we cannot arrive at a system of neutral taxation.³⁹ Many writers have maintained that uniformly proportional income taxes for all would yield a neutral tax; for then, the relative ratios of incomes in society would remain the same as before. Thus, if A received \$6,000 a year, B earned \$3,000, and C \$2,000, a 10-percent tax on each man would yield a “distribution” of: A, \$5,400; B, \$2,700; C, \$1,800—the same mutual ratios as before. (This assumes, of course, no disincentive effects of the tax on the various individuals or, rather, equiproportional disincentive effects on each individual in the society—a most unlikely occurrence.) But the trouble is that this “solution” misconceives the nature of what a neutral tax would have to be. For a tax truly neutral to the free market would not be one that left income patterns the same as before; *it would be a tax which would affect the income pattern, and all other aspects of the economy, in the same way as if the tax were really a free-market price.*

³⁹This is true if we also disregard the grave conceptual difficulties of arriving at a definition of “income,” in accounting for the imputed monetary value of work done within a household, of averaging fluctuating incomes over various years, etc.

This is a very important correction; for we must surely realize that when a service is sold at a certain price on the free market, this sale emphatically does *not* leave income “distribution” the same as before. For, normally, market prices are *not* proportional to each man’s income or wealth, but are uniform *in the sense of equal to everyone*, regardless of his income or wealth or even his eagerness for the product. A loaf of bread does *not* cost a multimillionaire a thousand times as much as it costs the average man. If, indeed, the market really behaved in this way, there would soon be no market, for there would be no advantage whatever in earning money. The more money one earned, the more, *pari passu*, the price of every good would be raised to him. Therefore, the entire civilized money economy and the system of production and division of labor based upon it would break down. Far from being “neutral” to the free market, then, a proportional income tax follows a principle which, if consistently applied, would eradicate the market economy and the entire monetary economy itself.

It is clear, then, that equal taxation of everyone—the so-called “head tax” or “poll tax”—would be a far closer approach to the goal of neutrality. But even here, there are serious flaws in its neutrality, entirely apart from the ineluctable taxpayer–tax-consumer dichotomy. For one thing, goods and services on the free market are purchased only by those freely willing to obtain them at the market price. Since a tax is a compulsory levy rather than a free purchase, it can never be assumed that each and every member of society would, in a free market, pay this equal sum to the government. In fact, the very compulsory nature of taxation implies that far less revenue would be paid in to the government were it conducted in a voluntary manner. Rather than being neutral, therefore, the equal tax would distort market results by imposing undue levies on at least three groups of citizens: the poor, the uninterested, and the hostile, i.e., those who, for one reason or another, would *not* have voluntarily paid these equal sums to the government.

Another grave problem in treating the equal tax as akin to a free-market price is that we do not know what “services” of government the people are supposed to be “purchasing.” For example, if the government uses the tax to subsidize a certain favored group, it is difficult to know what sort of “service” the payers of the head tax are reaping from this act of government. But let us take a seemingly clear-cut case of pure service, police protection, and let us assume that the head tax is being paid for this expenditure. The free-market rule is that equal prices are paid for equal services; but what, here, is an “equal service”? Surely, the service of police protection is of far greater magnitude in an urban crime center than it is in some sleepy backwater, where crime is rare. Police protection will certainly cost more in the crime-ridden area; hence, if it were supplied on the market, the price paid there would be higher than in the backwater. Furthermore, a person under particular threat of crime, and who might require greater surveillance, would have to pay a higher police fee. A uniform tax would be below market price in the dangerous areas and above it in the peaceful areas. To approach neutrality, then, a tax would have to vary in accordance with the *costs* of services and not be uniform.⁴⁰ This is the neglected *cost principle* of taxation.

The cost principle, however, is hardly neutral either. Apart from the inexorable taxpayer–tax-consumer problem, there is, again, the problem of how a “service” is to be defined and isolated. What is the “service” of redistribution from Peter to Paul, and what is the “cost” for which Peter is to be assessed? And even if we confine the discussion to such common services as police protection, there are grave flaws. In the first place, the costs of government, as we shall see further below, are bound to

⁴⁰We are not here conceding that “costs” determine “prices.” The general array of final prices determines the general array of cost prices, but *then* the viability of firms is determined by whether the price that people will pay for their particular products will be enough to cover the costs, which are determined throughout the market.

be much higher than those of the free market. Secondly, the State cannot calculate well and therefore cannot gauge its costs accurately. Thirdly, costs are equal to prices only in equilibrium; since the economy is never in equilibrium, costs are never a precise estimate of what the free-market price would have been. And finally, as in the equal tax, and in contrast to the free market, the taxpayer never *demonstrates* his benefit from the governmental act; it is simply and blithely assumed that he would have purchased the service voluntarily at this price.

Still another attempt at neutral taxation is the *benefit principle*, which states that a tax should be levied equal to the benefit which the individuals receive from the government service. It is not always realized what this principle would mean: e.g., that recipients of welfare benefits would have to pay the full costs of these benefits. Each recipient of government welfare would then have to pay *more* than he received, for he would also have to pay the “handling” costs of government bureaucracy. Obviously, there would be no such welfare or any other subsidy payments if the benefit principle were maintained. Even if we again confine the discussion to services like police protection, grave flaws still remain. Let us again disregard the persistent taxpayer-tax-consumer dichotomy. A fatal problem is that we cannot measure benefits or even know whether they exist. As in the head tax and cost principles, there is here no free market where people can *demonstrate* that they are receiving a benefit from the exchange greater than the value of the goods they surrender. In fact, since taxes are levied by coercion, it is clear that people’s benefits from government are considerably *less* than the amount that they are required to pay, since, if left free, they would contribute less to government. The “benefit,” then, is simply assumed arbitrarily by government officials.

Furthermore, even if the benefit were freely demonstrable, the *benefit principle* would not approach the process of the free market. For, once again, individuals pay a *uniform price* for services on the free market, regardless of the extent of their subjective benefits. The man who would “walk a mile for a Camel”

pays no more, ordinarily, than the man who couldn't care less. To tax everyone in accordance with the benefit he receives, then, is diametrically opposed to the market principle. Finally, if everyone's benefit is taxed away, there would be no reason for him to make the exchange or to receive the government service. On the market, not all people, not *even* the marginal buyers, pay the full amount of their benefit. The supramarginal buyers obtain unmeasurable surplus benefit, and *so do* the marginal buyers, for without such a surplus they would not buy the product. Moreover, for such services as police protection, the benefit principle would require the poor and the infirm to pay *more* than the rich and the able, since the former may be said to benefit more from protection. Finally, it should be noted that if each person's benefit from government is to be taxed away, the bureaucrats, who receive all their income from the government, would have to return their whole salary to the government and so serve without pay.⁴¹

⁴¹Ever since Adam Smith, economists have tried, fallaciously, to use the benefit principle to justify proportional, and even progressive, taxation, on the ground that people benefit "from society" in proportion, or even more than in proportion, to their incomes. But it is clear that the rich benefit *less* from such services as police protection, since they could more afford to pay for their own than the poor. And the rich derive no benefit from welfare expenditures. Therefore, the rich derive *fewer* benefits, absolutely, from government than the poor, and the benefit principle cannot be used to justify proportional or progressive taxation.

But, it might be objected, can't we say that everyone derives proportional benefits to his income from "society," though not from government? In the first place, this cannot be established. In fact, the opposite argument would be more accurate: for since both A and B participate in society and its benefits, any differential income between A and B must be due to their own *particular* worths rather than to society. Certainly equal benefits from society cannot be used to imply a proportional tax. And, furthermore, even if the argument were true, by what legerdemain can we say that "society" is equivalent to the State? If A, B, C, producers on the market, benefit from each other's existence as "society," how can G, the government, use this fact to establish *its* claim to *their* wealth?

We have thus seen that no principle of taxation can be neutral with respect to the free market. *Progressive* taxation, where each man pays *more* than proportionately to his income, of course makes no attempt at neutrality. If the proportional tax embodies a principle destructive to the entire market economy and the monetary economy itself, then the progressive tax does so still more. For the progressive tax penalizes the able and efficient in even greater proportion than their relative ability and efficiency. Progressive rates are a particular disincentive against especially able work or entrepreneurship. And since such ability is engaged in serving the consumer, a progressive tax levies a particular burden on the consumers as well.

In addition to the two ways discussed above by which income taxation penalizes saving, the progressive tax imposes an added penalty. For empirically, in most cases, the wealthy save and invest proportionately more of their incomes than the lower-income groups. There is, however, no apodictic, praxeological reason why this must always be so. The rule would not hold, for example, in a country where the wealthy bought jewelry while the poor thriftily saved and invested.

While the progressive principle is certainly highly destructive of the market, most conservative, pro-free-market economists tend to overweigh its effects and to underweigh the destructive effects of proportional taxation. Proportional income taxation has many of the same consequences, and therefore the *level* of income taxation is generally more important for the market than the degree of progressivity. Thus, society A may have a proportional income tax requiring every man to pay 50 percent of his income; society B may have a very steeply progressive tax requiring a poor man to pay $\frac{1}{4}$ percent and the richest man 10 percent of his income. The rich man will certainly prefer society B, *even though* the tax is progressive—demonstrating that it is not so much the progressivity as the height of his tax that burdens the rich man.

Incidentally, the poor producer, with a lower tax upon him, will also prefer society B. This demonstrates the fallacy in the

common conservative complaint against progressive taxation that it is a means “for the poor to rob the rich.” For both the poor man and the rich man have, in our example, chosen progression! The reason is that the “poor” do not “rob the rich” under progressive taxation. Instead, it is the State that “robs” both through taxation, whether proportional or progressive.

It may be objected that the poor benefit from the State’s expenditures and subsidies from the tax proceeds and thus do their “robbing” indirectly. But this overlooks the fact that the State can spend its money in many different ways: it may consume the products of specific industries; it may subsidize some or all of the rich; it may subsidize some or all of the poor. The fact of progressivity does not *in itself* imply that the “poor” are being subsidized en masse. Indeed, if some of the poor are being subsidized, others will probably not be, and so these latter net taxpayers will be “robbed” along with the rich. In fact, since there are usually far more poor than rich, the poor en masse may very well bear the greatest burden of even a progressive tax system.

Of all the possible types of taxes, the one most calculated to cripple and destroy the workings of the market is the *excess profits tax*. For of all productive incomes, profits are a relatively small sum with enormous significance and impact; they are the motor, the driving force, of the entire market economy. Profit-and-loss signals are the prompters of the entrepreneurs and capitalists who direct and ever redirect the productive resources of society in the best possible ways and combinations to satisfy the changing desires of consumers under changing conditions. With the drive for profit crippled, profit and loss no longer serve as an effective incentive, or, therefore, as the means for economic calculation in the market economy.

It is curious that in wartime, precisely when it would seem most urgent to preserve an efficient productive system, the cry invariably goes up for “taking the profits out of war.” This zeal never seems to apply so harshly to the clearly war-borne “profits” of steel workers in higher wages—only to the profits of

entrepreneurs. There is certainly no better way of crippling a war effort. In addition, the “excess” concept requires some sort of norm above which the profit can be taxed. This norm may either be a certain rate of profit, which involves the numerous difficulties of measuring profit and capital investment in every firm; or it may refer to profits at a base period before the war started. The latter, the general favorite because it specifically taps *war* profits, makes the economy even more chaotic. For it means that while the government strains for more *war* production, the excess profits tax creates every incentive toward lower and inefficient war production. In short, the EPT tends to freeze the process of production as of the peacetime base period. And the longer the war lasts, the more obsolete, the more inefficient and absurd, the base-period structure becomes.

C. SHIFTING AND INCIDENCE: A TAX ON AN INDUSTRY

No discussion of taxation, however brief, can overlook the famous problem of “the shifting and incidence” of taxation. In brief, who pays a tax? The person on whom it is levied, or someone else to whom the former is able to “shift” the tax? There are still economists, incredibly, who hew to the old nineteenth-century “equal diffusion” theory of taxation, which simply closes the problem by proclaiming that “all taxes are shifted to everyone,” so that there is no need to analyze each one in particular.⁴² This obscurantist tendency is fostered by treating “shifting” in too broad a way. Thus, if an income tax is levied on Jones at 80 percent, this will hurt *not only* Jones, but also—by decreasing Jones’ incentives as well as capacities—other consumers by reducing Jones’ work and savings. It is therefore true that the *effects* of taxation diffuse outward from the center of the target. But this is far from saying that Jones can simply shift the tax burden onto the shoulders of others. The concept of “shifting”

⁴²For a critique of this doctrine, see E.R.A. Seligman, *The Shifting and Incidence of Taxation* (New York: Macmillan & Co., 1899), pp. 122–36.

will here be limited to the case where the payment of a tax can be directly transferred *from* the original payer to someone else, and will not be used when others suffer *in addition* to the original taxpayer. The latter may be called the “indirect effects” of the tax.

The first rule of shifting is that *an income tax cannot be shifted*. This formerly accepted truth in economics is now countered with the popular assumption that, for example, a tax on wages will spur unions to demand higher wages to compensate for the tax, and that therefore the tax on wages is shifted “forward” onto the employer, who, in turn, shifts it again forward onto the body of consumers. And yet almost every step in this commonly proclaimed sequence is an egregious fallacy. It is absurd, in the first place, to think that workers or unions wait quietly for a tax to galvanize them into making demands. Workers *always* want higher wages; unions always demand more. The question is: Will they get more? There is no reason to think that they can. A worker can get only the value of the discounted marginal productivity of his labor. No clamor will raise that productivity, and therefore none can raise the wage he earns from his employer. Union demands for higher wages will be treated as usual, i.e., they can be satisfied only at the cost of the unemployment of some of the work force in that industry. But this is true whether or not there has been a tax on wages; the tax will have nothing to do with the final wage set on the market.

The idea that the increased cost will be passed on to the consumer by the employer is an illustration of perhaps the single most widespread fallacy on taxation: that businessmen can simply shift their higher costs forward onto the consumers in the form of higher prices. All the economic theory expounded in this book shows the error of this doctrine. For the price of a given product is set by the demand schedules of the consumers. There is nothing in higher costs or higher taxes which, *per se*, increases these schedules; hence, *any* change in selling prices, whether higher or lower, will *decrease* the revenues of the business involved. For each business, on the market, tends to be, at

all times, at its “maximum profit point” in relation to the consumers. Prices are already at their point of maximum return for the business; therefore, higher taxes or other costs imposed on the firm will reduce their net incomes rather than be smoothly and easily passed on to consumers. We thus arrive at this significant conclusion: *no tax* (not just an income tax) *can ever be shifted forward*.

Suppose that a particularly heavy tax—of whatever type—has been laid on a specific industry: say the liquor industry. What will be the effects? As we have noted, the tax will not simply be “passed on” to the consumers.⁴³ Instead, the price of liquor will remain the same; the net income of the firms will decline. This will mean that returns will be lower to capital and enterprise in liquor than in other industries of the economy; marginal liquor firms will suffer losses and go out of business; and, in general, productive resources of all types will flow out of liquor and into other industries. The *long-run effect*, therefore, is to decrease the supply of liquor produced, and therefore, by the law of supply and demand, to raise the price of liquor on the market. However, as we have said above, this process—this diffusion of suffering over the economy—is hardly “shifting.” For the tax is not simply “passed on”; it only permeates to the consumers *through* hurting the industry taxed. The final result will be a distortion of the factors of production; fewer goods are now being produced than the consumers would prefer in the liquor industry; and too many goods, relatively to liquor, are being produced in the other industry.

⁴³Businessmen are particularly prone to this “passing on” argument—obviously in an attempt to convince consumers that *they* are really paying any tax on that industry. Yet the argument is clearly belied by the very zeal of each industry to have its taxes lowered and to fight against a tax increase. If taxes could really be shifted so easily and businessmen were simply unpaid collection agents for the government, they would never protest a tax on their industry. (Perhaps this is the reason why almost no businessmen have protested being collection agents for withholding taxes on their *workers*!)

Taxes, in short, can more readily be “shifted backward” than forward. Strictly, the result is not shifting because it is not a painless process. But it is clear that the backward process (backward to the factors of production) happens more quickly and directly than the effects on consumers. For losses or lowered profits to liquor firms will immediately lower their demand for land, labor, and capital factors of production; this falling of demand schedules will lower wages and rents earned in the liquor industry; and these lower earnings will induce a shift of labor, land and capital out of liquor and into other industries. The rapid “backward-shifting” is in harmony with the “Austrian” theory of consumption and production developed in this volume; for prices of factors are determined by the selling prices of the goods which they produce, and *not vice versa* (which would have to be the conclusion of the naive “shifting-forward” doctrine).

It should be noted that, in some cases, the industry itself can welcome a tax upon it, for the sake of conferring an indirect, but effective, monopolistic privilege on the supramarginal firms. Thus, a flat “license” tax will confer a particular privilege on the more heavily capitalized firms, which can more easily afford to pay the fee.

D. SHIFTING AND INCIDENCE: A GENERAL SALES TAX

The most popular example of a tax supposedly shifted forward is the *general sales tax*. Surely, for example, if the government imposes a uniform 20-percent tax on all retail sales, and if we can make the simplifying assumption that the tax can be equally well enforced everywhere, then business will simply “pass on” the 20-percent increase in all prices to consumers. In fact, however, there is no way for prices to increase at all! As in the case of one particular industry, prices were previously set, or approximately so, at the points of maximum net revenue for the firms. Stocks of goods or factors have not yet changed, and neither have demand schedules. How then could prices rise? Moreover, if we look at the general array of prices, as is proper

when dealing with a general sales tax, these are determined by the supply of and the demand for money, from the goods and money sides. For the general array of prices to rise, there must be either an increase in the supply of money, a decrease in the demand schedule for money, or both. Nothing in a general sales tax causes a change in either of these determinants.⁴⁴

Furthermore, the long-run effects of a general sales tax on prices will be smaller than in the case of an equivalent partial excise tax. A tax on a specific industry, such as liquor, will push resources out of this industry and into others, and therefore the relative price of the taxed commodity will eventually rise. In a general, uniformly enforced sales tax, however, there is no room for such shifts of resources.⁴⁵

The myth that a sales tax can be shifted forward is comparable to the myth that a general union-imposed wage increase can be shifted forward to higher prices for consumers, thereby "causing inflation." There is here no way that the general array

⁴⁴It might be objected that the firms can pass along the sales tax because it is a *general* increase for all firms. Aside from the fact that no relevant general factor (supply, demand for money) has increased, the individual firm is still concerned only with its individual demand curve, and these curves have not shifted. A tax increase has done nothing to make a higher price *more profitable* than it was before.

⁴⁵Resources can now shift only from work into idleness (or into barter). This, of course, may and probably will happen; since, as we shall see further, a sales tax is a tax on incomes, the rise in opportunity cost of leisure may push some workers into idleness and thereby lower the quantity of goods produced. To this extent, prices *will* eventually rise, although hardly in the smooth, immediate, proportionate way of "shifting." See the pioneering article by Harry Gunnison Brown, "The Incidence of a General Output or a General Sales Tax," reprinted in R.A. Musgrave and C.S. Shoup, eds., *Readings in the Economics of Taxation* (Homewood, Ill.: Richard D. Irwin, 1959), pp. 330–39. While this was the first modern attack on the fallacy that sales taxes are shifted forward, Brown unfortunately weakened the implications of this thesis toward the end of his article.

of prices can rise, and the only possible result of such a wage increase is mass unemployment.⁴⁶

In considering the general sales tax, many people are misled by the fact that the price paid by the consumer necessarily *includes* the tax. If someone goes to a movie and pays \$1.00 admission, and if he sees prominently posted the information that this covers a “price” of 85¢ and a tax of 15¢, he tends to conclude that the tax has simply been added on to the “price.” But \$1.00 is the price, not 85¢, the latter sum simply being the revenue accruing to the firm after taxes. The revenue to the firm has, in effect, been *reduced* to allow for payment of taxes.

This is precisely the consequence of a general sales tax. Its immediate impact lowers the gross revenue of firms by the amount of the tax. In the long run, of course, firms cannot pay the tax, the loss in gross revenue of firms being imputed backward to interest income by capitalists and to wages and rents earned by owners of original factors—labor and ground land. A decrease in gross revenue to retail firms is reflected back to a decreased demand for the products of all the higher-order firms. The major result of a general sales tax is a general reduction in the net revenues accruing to original factors. The sales tax has been *shifted backwards* to original factor returns—to interest and to all wages and ground rents. No longer does every original factor of production earn its discounted marginal product. Original factors now earn *less* than their DMVPs, the reduction consisting of the sales tax paid to the government.

Let us now integrate this analysis of the incidence of a general sales tax with our previous general analysis of the benefits and burdens of taxation. This is accomplished by remembering that the proceeds of taxation are, in turn, spent by the government. Whether or not the government spends the money for

⁴⁶Of course, if the money supply is increased after a wage rise, and credit expanded, prices can be raised so that money wages are again not above their discounted marginal value products.

resources for its own activities or simply transfers the money to people it subsidizes, the effect is to *shift* consumption and investment demand from private hands to the government or to government-supported individuals, by the amount of the tax revenue. The tax has been ultimately levied on the *incomes* of original factors, and the money transferred from their hands to the government. The income of the government and of those subsidized by the government has been increased at the expense of the tax producers, and therefore consumption and investment demands on the market have been shifted from the producers to the expropriators by the amount of the tax. As a consequence, the value of the monetary unit will remain unchanged (barring a difference in demands for money between the taxpayers and the tax-consumers), but the *array* of prices will shift in accordance with the shift in demands. Thus, if the market has been spending heavily on clothing, and the government uses the revenue mostly for the purchase of arms, there will be a fall in the price of clothes and a rise in the price of arms, and a tendency for nonspecific factors to shift out of the production of clothing and into the production of armaments.

As a result, there will not finally be, as might be assumed, a proportional 20-percent fall in all original factor incomes as the result of a 20-percent general sales tax. Specific factors in industries that have lost business from the shift from private to governmental demand will lose proportionately more in income; specific factors in industries gaining in demand will lose proportionately less—some may gain so much as to gain absolutely from the change. Nonspecific factors will not be affected as much proportionately, but they too will lose and gain according to the difference that the concrete shift in demand makes in their marginal value productivity.

It should be carefully noted that the general sales tax is a conspicuous example of *failure to tax consumption*. The sales tax is commonly *supposed* to penalize consumption, rather than income or capital. Yet we find that the sales tax reduces, not just

consumption, but the *incomes* of original factors. *The general sales tax is therefore an income tax*, albeit a rather haphazard one. Many “right-wing” economists have advocated general sales taxation, as opposed to income taxation, on the grounds that the former taxes consumption but not savings-investment; many “left-wing” economists have opposed sales taxation for the same reason. Both are mistaken; the sales tax is an income tax, though of a more haphazard and uncertain incidence. The major effect of the general sales tax will be that of the income tax—to reduce the consumption *and* the saving-investment of the taxpayers.⁴⁷ In fact, since, as we have seen, the income tax by its nature falls more heavily on savings-investment than on consumption, we reach the paradoxical and important conclusion that a tax on *consumption* will fall more heavily on *savings-investment* than on consumption in its ultimate incidence.

E. A TAX ON LAND VALUES

Wherever taxes fall, they blight, hamper, and distort the productive activity of the market. Clearly, a tax on wages will distort the allocation of labor effort, a tax on profits will cripple the profit-and-loss motor of the economy, a tax on interest will tend

⁴⁷Mr. Frank Chodorov, in his *The Income Tax—Root of All Evil* (New York: Devin-Adair, 1954), fails to indicate what other type of tax would be “better” from a free-market point of view, than the income tax. It is clear from our discussion that there are few taxes indeed that will not be as bad as the income tax from the viewpoint of the free market. Certainly sales or excise taxation will not fill the bill.

Mr. Chodorov, furthermore, is surely wrong when he terms income and inheritance taxes *unique* denials of the right of individual property. Any tax whatever infringes on property right, and there is nothing in an “indirect tax” which makes the infringement any less clear. It is true that an income tax forces the subject to keep records and disclose his personal dealings, thus imposing a further loss in his utility. The sales tax, however, also forces record-keeping; the difference again is one of degree rather than of kind, since here the directness covers only retail storekeepers instead of the bulk of the population.

to consume capital, etc. One commonly conceded exception to this rule is the doctrine of Henry George that ground-landowners perform no productive function and that therefore the government may safely tax site value without reducing the supply of productive services on the market. This is the *economic*, as distinguished from the moral, rationale for the famous “single tax.” Unhappily, very few economists have challenged this basic assumption, the single-tax proposal being generally rejected on grounds purely pragmatic (“there is no way in practice of distinguishing site from improvement value of land”) or conservative (“too much has been invested in land to expropriate the landowners now”).⁴⁸

Yet this central Georgist contention is completely fallacious. The owner of ground land performs a very important productive service. He finds, brings into use, and then allocates, land sites to the most value-productive bidders. We must not be misled by the fact that the physical stock of land is fixed at any given time. In the case of land, as of other material goods, it is not just the physical good that is being sold, but a whole bundle of services along with it—among which is the service of transferring

⁴⁸Thus, even so eminent an economist as F.A. Hayek has recently written:

This scheme [the single tax] for the socialization of land is, in its logic, probably the most seductive and plausible of all socialist schemes. If the factual assumptions on which it is based were correct, i.e., if it were possible to distinguish clearly between the value of the “permanent and indestructible powers” of the soil . . . and . . . the value due to . . . improvement . . . the argument for its adoption would be very strong. (F.A. Hayek, *The Constitution of Liberty* [Chicago: University of Chicago Press, 1960], pp. 352–53)

Also see a somewhat similar concession by the Austrian economist von Wieser. Friedrich Freiherr von Wieser, “The Theory of Urban Ground Rent” in Louise Sommer, ed., *Essays in European Economic Thought* (Princeton, N.J.: D. Van Nostrand, 1960), pp. 78 ff.

ownership from seller to buyer, and doing so efficiently. Ground land does not simply exist; it must be *served to* the user by the owner (one man, of course, can perform both functions when the land is “vertically integrated”).⁴⁹ The landowner earns the highest ground rents by allocating land sites to their most value-productive uses, i.e., to those uses most desired by consumers. In particular, we must not overlook the importance of *location* and the productive service of the site-owner in assuring the most productive locations for each particular use.

The view that bringing sites into use and deciding upon their location is not really “productive” is a vestige from the old classical view that a service which does not tangibly “create” something physical is not “really” productive.⁵⁰ Actually, this function is just as productive as any other, and a particularly

⁴⁹I do not know anyone who has brought out the productivity of land-owners as clearly as Mr. Spencer Heath, an ex-Georgist. See Spencer Heath, *How Come That We Finance World Communism?* (mimeographed MS., New York: Science of Society Foundation, 1953); *idem*, *Rejoinder to ‘Vituperation Well Answered’ by Mr. Mason Gaffney* (New York: Science of Society Foundation, 1953); *idem*, *Progress and Poverty Reviewed* (New York: The Freeman, 1952).

⁵⁰Spencer Heath comments on Henry George as follows:

Wherever the services of land owners are concerned he is firm in his dictum that *all* values are physical . . . In the exchange services performed by [landowners], their social distribution of sites and resources, no physical production is involved; hence he is unable to see that they are entitled to any share in the distribution of physical things and that the rent they receive . . . is but recompense for their non-coercive distributive or exchange services. . . . He rules out all creation of values by the services performed in [land] distribution by free contract and exchange, which is the sole alternative to either a violent and disorderly or an arbitrary and tyrannical distribution of land. (Heath, *Progress and Poverty Reviewed*, pp. 9–10)

vital function it is. To hamper and destroy this function would wreck the market economy.⁵¹

F. TAXING "EXCESS PURCHASING POWER"

In this necessarily hasty overview of the high spots of taxation theory, we have space for only one more comment: a criticism of the very common view that, in a business boom, the government should increase taxation "in order to sop up excess purchasing power," and thereby halt the inflation and stabilize the economy. We shall discuss the problems of inflation, stabilization, and the business cycle below; here, let us note the oddity of assuming that a *tax* is somehow less of a social cost, less of a burden, than a *price*. Thus, suppose, in a boom, that Messrs. A, B, and C, with the money they have on hand, would spend a certain amount on some commodity—say pipes—at a certain market price, e.g., \$10 per pipe. The government decides that this is a most unfortunate situation, that the market price is—by some arbitrary, undivulged standard—"too high," and that therefore it must help its subjects by taxing their money away from them, and thus lowering prices. Suppose, indeed, that A,

⁵¹For the effects of the "single tax" and for other criticisms, see Murray N. Rothbard, *The Single Tax: Economic and Moral Implications* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1957); Rothbard, "A Reply to Georgist Criticisms" (mimeographed MS., Foundation for Economic Education, 1957); and Frank H. Knight, "The Fallacies in the 'Single Tax,'" *The Freeman*, August 10, 1953, pp. 810–11. One of the more amusing objections is that of the dean of Georgist economists, Dr. Harry Gunnison Brown. Although the Georgists base much of their economic case on a sharp distinction between ownership of land and ownership of improvements on that land, Brown tries to refute the disruptive economic effects of the single tax by implicitly assuming that land and improvements are owned by the same people anyway! Actually, of course, the disruptive effects remain; vertical integration by individuals or firms does not remove the economic principle from either of the integrated stages of production. See Harry Gunnison Brown, "Foundations, Professors and 'Economic Education,'" *The American Journal of Economics and Sociology*, January, 1958, pp. 150–52.

B, and C are taxed sufficiently to lower the pipe price to, say, \$8. By what reasoning are they better off, now that taxes have been increased by precisely the amount that their monetary funds have dwindled? In short, the “tax price” has gone up in order that the prices of other goods may decline. Why is a voluntary price, paid willingly by buyers and accepted by sellers, somehow “bad” or burdensome for the buyers, while at the same time a “price” levied compulsorily on the same buyers for dubious governmental services for which they have not demonstrated a need is somehow “good”? Why are high prices burdensome and high taxes not?

*9. Binary Intervention: Government Expenditures*⁵²

A. THE “PRODUCTIVE CONTRIBUTION” OF GOVERNMENT SPENDING

Government expenditures are a coerced transfer of resources from private producers to the uses preferred by government officials. It is customary to classify government spending into two categories: *resource-using*, and *transfer*. Resource-using expenditures frankly shift resources from private persons in society to the use of government: this may take the form of hiring bureaucrats to work for government—which shifts labor resources directly—or of buying products from business firms. Transfer payments are pure subsidy spending—when the government takes from Peter to pay Paul. It is true that, in the latter case, the government gives “Paul” money to decide the allocation as he wishes, and in a sense we may analyze the two types

⁵²Government expenditures are made from government revenue. In the preceding section we have dealt with the major source of governmental revenue, taxation. Below we shall deal with inflation, or money creation, and in the present section a discussion of government “enterprise” is included. For a brief treatment of the final major source of government revenue—borrowing from the public—see Appendix A below.

of spending separately. But the similarities here are greater than the differences. For, in both cases, resources are seized from private producers and shifted to the uses which government officials think best. After all, when a bureaucrat receives his government salary, this payment is in the same sense a “transfer payment” from the taxpayers, and the bureaucrat is also free to decide how further to allocate the income at his command. In both cases, money and resources are shifted from producers to nonproducers, who consume or otherwise use them.⁵³

This type of analysis of government has been neglected because economists and statisticians tend to assume, rather blithely, that government expenditures are a measure of its productive contribution to society. In the “private sector” of the economy, the value of productive output is sensibly gauged by the amount of money that consumers spend voluntarily on that output. Curiously, on the other hand, the government’s “productive output” is gauged, not by what is *spent on* government, but by what government itself spends! No wonder that grandiose claims are often made for the unique productive power of government spending, when a mere increase in that spending serves to raise the government’s “productive contribution” to the economy.⁵⁴

⁵³It may be objected that while bureaucrats may not be producers, other “Pauls” who receive subsidies on occasion are basically producers on the market. To the extent that they receive subsidies from the government, however, they are being nonproductive and living off the producers by compulsion. What is relevant, in short, is the extent to which they are in a *relation of State* to their fellow men. We might add that, in this work, the term “State” is never meant in an anthropomorphic manner. “State” really means people acting toward one another in a systematically “stateish” relationship.

I am indebted to Mr. Ralph Raico, of the University of Chicago, for the “relation of State” concept.

⁵⁴Originally, Professor Simon Kuznets contended that only *taxes* should gauge the government’s productive output, thus measuring production by revenue as in the case of private firms. But taxes, being compulsory,

What, then, *is* the productive contribution of government? Since the value of government is not gauged on the market, and the payments to the government are not voluntary, it is impossible to estimate. It is impossible to know how much would be paid in to the government were it purely voluntary, or indeed, whether one central government in each geographical area would exist at all. Since, then, the only thing we do know is that the tax-and-spend process diverts income and resources from what they would have been doing in the “private sector,” we must conclude that the government’s productive contribution to the economy is precisely zero. Furthermore, even if it be objected that governmental services are worth *something*, it would have to be noted that we are again suffering from the error pointed out by Bastiat: a sole emphasis on what is *seen*, to the neglect of what is *not* seen. We may see the government’s hydroelectric dam in operation; we do *not* see the things that private individuals would have done with the money—whether buying consumers’ goods or investing in producers’ goods—but which they were compelled to forgo. In fact, since private consumers would have done something else, something more desired, and therefore from their point of view more *productive*, with the money, we can be sure that the loss in productivity incurred by the government’s tax and spending is greater than whatever productivity it has contributed. In short, strictly, the government’s productivity is not simply zero, but *negative*, for it has imposed a loss in productivity upon society.⁵⁵

Government expenditure is often referred to as “investment” resulting in “capital.” And we have heard much in recent years about Soviet and other multi-Year Plans busily engaged in

cannot be used as a productive gauge. In contrast to the present method of national income accounting, Kuznets would have eliminated all government *deficits* from its “productive contribution.”

⁵⁵Even for those who do not accept this analysis, any who believe, empirically, that waste in government exceeds 50 percent of its expenditures would have to agree that our assumption is more accurate than the current estimate of 100 percent productivity by the government.

building up “capital” by government action. Yet it is illegitimate to use the term “capital” for government expenditures. Capital is the status of productive goods along the path to eventual consumption. In any sort of division-of-labor economy, capital goods are built, not for their own sake by the investor, but in order to use them to produce lower-order and eventually consumers’ goods. In short, a characteristic of an investment expenditure is that the good in question is not being used to fulfill the needs of the investor, but of someone else—the consumer. Yet, when government confiscates resources from the private market economy, it is precisely defying the wishes of the consumers; when government invests in any good, it does so to serve the whims of government officials, not the desires of consumers. Therefore, no government expenditures can be considered genuine “investment,” and no government-owned assets can be considered capital. Government expenditures are divisible into two parts: *consumption* expenditures by government officials, beneficiaries of government subsidies, and other nonproductive recipients; and *waste* expenditures, where government officials really believe that they are “investing” in “capital.” These waste expenditures result in *waste assets*.⁵⁶ The consumption of the governmentally privileged is, of course, in a different category from private consumption, since it is necessarily *at the expense* of the private consumption of producers. We may therefore call the former “antiproduktive consumption.”⁵⁷

⁵⁶If a waste asset owned by the government is sold to private enterprise, *then* all or part of it might become a capital good. But this potential does not make the good capital while used by the government. It might be objected that government purchases are genuine investments when used by a government “enterprise” that charges prices on the market. We shall see, however, that this is not really enterprise but *playing at* enterprise.

See below for a more detailed discussion of the waste involved in waste assets.

⁵⁷This is to be distinguished from the classical concept of “nonproductive consumption” as all consumption above that needed to maintain the productive capacity of the laborer.

B. SUBSIDIES AND TRANSFER PAYMENTS

Let us delve a little further into the typology of government spending. Transfer spending or subsidies distort the market by coercively penalizing the efficient for the benefit of the inefficient. (And it does so even if the firm or individual is efficient without a subsidy, for its activities are then being encouraged beyond their most economic point.) Subsidies prolong the life of inefficient firms and prevent the flexibility of the market from fully satisfying consumer wants. The greater the extent of government subsidy, the more the market is prevented from working, the more resources are frozen in inefficient ways, and the lower will be the standard of living of everyone. Furthermore, the more government intervenes and subsidizes, the more caste conflict will be created in society, for individuals and groups will benefit only *at one another's expense*. The more widespread the tax-and-subsidy process, the more people will be induced to abandon production and join the army of those who live coercively off production. Production and living standards will be progressively lowered as energy is diverted from production to politics and as government saddles a dwindling base of production with a growing and more top-heavy burden of the State-privileged. This process will be all the more accelerated because those who succeed in any activity will invariably tend to be those who are best at performing it. Those who particularly flourish on the free market, therefore, will be those most adept at production and at serving their fellow men; those who succeed in the political struggle for subsidies, on the other hand, will be those most adept at wielding coercion or at winning favors from wielders of coercion. Generally, different people will be in the different categories of the successful, in accordance with the universal specialization of skills. Furthermore, for those who are skillful at both, the tax-and-subsidy system will encourage and promote their predatory skills and penalize their productive ones.

A common example of direct transfer subsidy is governmental *poor relief*. State poor relief is clearly a *subsidization of poverty*,

for men are now automatically entitled to money from the State because of their poverty. Hence, the marginal disutility of income forgone from leisure diminishes, and idleness and poverty tend to increase further, which in turn increases the amount of subsidy that must be extracted from the taxpayers. Thus, a system of legally subsidized poverty tends to call forth more of the very poverty that is supposedly being alleviated. When, as is generally the case, the amount of subsidy depends directly on the number of children possessed by the pauper, there is a further incentive for the pauper to breed more children than otherwise and thereby multiply the number of paupers—and even more dependent paupers—still further.⁵⁸ The sincerity of the State's desire to promote charity towards the poor may be gauged by two perennial drives of government: to suppress "charity rackets" and to drive individual beggars off the streets because the "government makes plenty of provision for them."⁵⁹ The effect of both measures is to cripple voluntary

⁵⁸As Thomas Mackay aptly stated: "We can have exactly as many paupers as the country chooses to pay for." Thomas Mackay, *Methods of Social Reform* (London: John Murray, 1896), p. 210. Private charity to the poor, on the other hand, would not have the same vicious-circle effect, since the poor would not have a continuing compulsory claim on the rich. This is particularly true where private charity is given only to the "deserving" poor. On the nineteenth-century concept of the "deserving poor," cf. Barbara Wootton, *Social Science and Social Pathology* (London: George Allen & Unwin, 1959), pp. 51, 55, and 268 ff.

⁵⁹The reader may gauge from the following anecdote by an admirer of such a drive just *who* was the true friend of the poor organ-grinder—his customer or the government:

During a similar campaign to clean up the streets of organ-grinders (most of whom were simply licensed beggars) a woman came up to LaGuardia at a social function and begged him not to deprive her of her favorite organ-grinder.

"Where do you live?" he asked her.

individual gifts of charity and to force the public to route its giving into the channels approved by, and tied in with, government officialdom.

Similarly, governmental *unemployment relief*, often supposed to help in curing unemployment, has the precisely reverse effect: it subsidizes and intensifies unemployment. We have seen that unemployment arises when laborers or unions set a minimum wage above what they could obtain on the unhampered market. Tax aid helps them to keep this unrealistic minimum and hence prolongs the period of unemployment and aggravates the problem.

C. RESOURCE-USING ACTIVITIES

Let us now return to the resource-using activities of government, where the State professes to be providing a service of some sort to the public. Government “service” may be either furnished free or sold at a price to users. “Free” services are particularly characteristic of government. Police and military protection, firefighting, education, parks, some water supply come to mind as examples. The first point to note, of course, is that these services are not and cannot be truly *free*. A free good, as we saw early in this book, would not be a good and hence not an object of human action; it would simply exist in superabundance for all. If a good does not exist aplenty for all, then the resource is scarce, and supplying it costs society other goods forgone. Hence it cannot be free. The resources needed to supply the free governmental service are extracted from the rest of production. Payment is made, however, not by users on the basis of

“On Park Avenue!”

LaGuardia successfully pushed through his plan to eliminate the organ-grinders and the peddlers, despite the pleas of the penthouse slummers. (Newbold Morris and Dana Lee Thomas, *Let the Chips Fall* [New York: Appleton-Century-Crofts, 1955], pp. 119–20)

their voluntary purchases, but by a coerced levy on the taxpayers. A basic split is thus effected between *payment* and *receipt of service*. This split is inherent in all government operations.

Many grave consequences follow from the split and from the “free” service as well. As in all cases where price is below the free-market price, an enormous and excessive demand is stimulated for the good, far beyond the supply of service available. Consequently, there will always be “shortages” of the free good, constant complaints of insufficiency, overcrowding, etc. An illustration is the perpetual complaints about police insufficiency, particularly in crime-ridden districts, about teacher and school shortages in the public school system, about traffic jams on government-owned streets and highways, etc. In no area of the free market are there such chronic complaints about shortages, insufficiencies, and low quality service. In all areas of private enterprise, firms try to coax and persuade consumers to buy more of their product. Where government owns and operates, on the other hand, there are invariably calls on consumers for patience and sacrifice, and problems of shortages and deficiencies continually abound. It is doubtful if any private enterprise would ever do what the New York City and other governments have done: exhort consumers to use *less* water. It is also characteristic of government operation that when a water shortage develops, it is the *consumers* and not the government “enterprisers” who are blamed for the shortage. The pressure is on consumers to sacrifice, and to use less, while in private industry the (welcome) pressure is on entrepreneurs to supply more.⁶⁰

The well-known inefficiencies of government operation are *not* empirical accidents, resulting perhaps from the lack of a civil

⁶⁰See Murray N. Rothbard, “Government in Business” in *Essays on Liberty* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1958), IV, 186 ff. It is therefore characteristic of government ownership and “enterprise” that the consumer becomes, not a “king” to be courted, but a troublesome fellow bent on using up the “social” product.

service tradition. They are *inherent* in all government enterprise, and the excessive demand fomented by free and other underpriced services is just one of the many reasons for this condition.

Free supply not only subsidizes the users at the expense of nonusing taxpayers; it also misallocates resources by failing to supply the service where it is most needed. The same is true, to a lesser extent, wherever the price is under the free-market price. On the free market, consumers can dictate the pricing and thereby assure the best allocation of productive resources to supply their wants. In a government enterprise, this cannot be done. Let us take again the case of the free service. Since there is no pricing, and therefore no exclusion of submarginal uses, there is no way that the government, even if it wanted to, could allocate its services to their most important uses and to the most eager buyers. All buyers, all uses, are artificially kept on the same plane. As a result, the most important uses will be slighted. The government is faced with insuperable allocation problems, which it cannot solve *even to its own satisfaction*. Thus, the government will be confronted with the problem: Should we build a road in place A or place B? There is no rational way whatever by which it can make this decision. It cannot aid the private consumers of the road in the best way. It can decide only according to the whim of the ruling government official, i.e., only if the *government officials* do the “consuming,” and not the public.⁶¹ If the government wishes to do what is best for the public, it is faced with an impossible task.

D. THE FALLACY OF GOVERNMENT ON A “BUSINESS BASIS”

Government may either subsidize deliberately by giving a service away free, or it may genuinely try to find the true market price, i.e., to “operate on a business basis.” The latter is

⁶¹Thus, the government official may select a road that will yield him or his allies more votes.

CHAPTER 17

The Myth of Tax “Reform”

Everyone will agree that the American tax system is a mess. Taxes are far too high, and the patchwork system is so complicated that even IRS officials don’t understand it. Hence the evident need for some sort of dramatic, even drastic, reform. As often happens, a group of dedicated and determined reformers has arisen to satisfy that need. But before we embrace this new gospel, we should heed the old maxim about jumping from the frying pan into the fire, and also remember the warning of the great H.L. Mencken, who defined “reform” as “Mainly a conspiracy of prehensile charlatans to mulct the American taxpayer.” And we should also bear in mind that all acts of government, however worthy they may seem, have a way of winding up solving no problems and only making matters worse.

Working within current tax realities, the reformers’ plans are varied and change nearly daily, as they meet conflicting political pressures. But whether they be Kemp-Kasten, Bradley-Gephardt, the Treasury plan of fall, 1984 (Regan, or Reagan I), or the final Reagan plan of spring, 1985 (Reagan II), there is one common and seemingly simple goal: that every person or group should pay the same proportional tax on their net income,

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and that all deductions, exemptions, and shelters be abolished in the name of this uniform proportional tax (a “flat tax with no exemptions”).

The flat tax reformers have much in common with militant ideologues that we have become all too familiar with in the twentieth century. In the first place, they are egalitarians in this case, assuming it to be sinful or at least grossly “unfair” for any person or group to escape the scythe of the great uniform tax. Second, and along with this egalitarianism, they assume in brusque and lordly fashion that they alone represent and embody the “general interest,” and that all objections to a uniform flat tax may be quickly dismissed as the self-interested croakings of the “special interests.” It doesn’t seem to matter if the “special interests” encompass most of the American populace; they must be unceremoniously swept aside to achieve the flat tax paradise. The fact that most of the impetus for this and other reforms comes from academic economists puts the icing on the flat tax cake. Academic idealists have always been accustomed to sweeping aside everyone else’s interests and concerns as petty and “special,” while they speak automatically for the larger interests of mankind. At best, the reformers cavalierly overlook the enormous amount of harm and pain they will inflict in the course of their grandiose reform.

One example: the flat tax would impose an enormous amount of harm and damage on every American homeowner. In their wisdom, the flat taxers have decided that deduction of interest payments on your mortgage is a “subsidy” granted by the tax system, and that your true net income would permit no such deduction. They have also concluded that the unwitting homeowner also enjoys another “subsidy” from the government: failure to tax his “imputed rent”; that is, the amount that he would have had to pay in rent if he had been renting the house instead of owning it. One of the many problems with the latter proposal is that the poor homeowner is never able to pay his “imputed” taxes; no, his taxes would have to be paid in cold cash, even though his income is “psychic” and not earned in money. But we press on. A third body blow to the homeowner would be the flat taxer’s insistence on eliminating federal tax deductions for state and local taxes, most of which are property taxes on one’s home. Thus, we have a three-fold tax increase inflicted on the homeowner, and the effect of this one-two-three punch would be a permanent lowering of the market value of one’s home, which consists of the present value of expected future returns from the house.

These are but a few of the many grave consequences and damages that would flow from the reformers’ measures. But the reformers literally do

not care; no pains (almost invariably suffered by others) must be permitted to block or delay the speedy achievement of their Utopia. Any alterations are only grudging concessions to the fierce resistance of the “special interests” to the advent of the flat taxers’ New Jerusalem. Thus, the Regan plan of fall, 1984 (Reagan I), proposed to increase drastically the capital gains tax, toward the ideal of raising it to the precise level of the income tax, and also suggested a sharp lowering of oil depletion allowances. Great resistance was offered to the plan by risky venture capitalists, who would be particularly crushed by a high capital gains tax, and by the similarly damaged oil interests, always considered sinister in the popular imagination. As a result, the reformers were forced to abandon these two aspects of their Grand Plan in Reagan II. But in the long run, these forced retreats are not important; their goal—a uniform across-the-board flat tax—always remains the same.

But why is this plan so grand? So vitally important that our pain and hardships should be treated as nothing? Here the reformers offer little argument. Basically, their reasons boil down to two: their tax system would be simple (you could calculate your tax on a postcard), and above all, it would be fair.

THE ARGUMENT FOR SIMPLICITY

Making out your taxes, the reformers claim, would be simplicity itself. No more back-breaking work trying to figure out what’s going on, no more hiring tax lawyers or accountants. But the sweet simplicity of the argument can be disposed of very quickly. In the first place, anyone who wants simplicity can have it now, by using the short E-Z form, and two-thirds of Americans do so at the present time. So then the question to ask is: why do one-third of us choose complexity by spending many painful hours over the complex form, and why do we hire expensive lawyers and accountants to aid us? Surely, not because we love complexity and expense for their own sakes, but because we believe that there are things in life worse than complexity, and one of them is paying more taxes! We are willing to suffer some complexity in order to lower some of our monstrous tax burden. And by eliminating our deductions, exemptions, shelters, and so on, the reformers are imposing compulsory simplicity against our wishes. They are truly what the great nineteenth century Swiss historian Jacob Burckhardt said of the statist intellectuals of his day, “terrible simplifiers.”

But the joke is on us, for the reformers' system would really in no way be simple. We would still have to go through a complex and murky maze. For the key to the flat taxers is that the uniform proportionate tax is to be levied on all net income. But what is net income? The answers are far from simple, and good arguments can be found on either side. The interesting and crucial fact is that, on each of these arguments, the flat taxers invariably come down against the harried taxpayer, and in favor of bringing ever more of our income and assets into the greedy maw of the taxing Leviathan State.

Thus, are "capital gains" income? The reformers say yes, and call for taxing it to the same extent as ordinary income. Western Europe has not gone down the economic drain partly because its capital gains taxes have always been far lower than its income taxes, but this fact does not and cannot count in the harsh calculus of our reformers. Should capital gains be taxed as they accrue on our books or only as they are realized in cash? Once again, the reformers opt for accrual, grabbing our assets at an earlier date, and heedless of our problem of paying taxes in money while our "gains" have only accrued in our psyche or on paper. Are the losses in our tax shelters phony, or should they be treated as real losses to write off our income? The reformers insist that they are phony, and that therefore they must be disregarded when our taxes are estimated. But who is to say so? Who is to say that if I buy a horse farm in Virginia, and suffer losses, that these are losses I welcome in order to reduce my taxes? Who is equipped to look into my heart and mind and find out if these losses are "genuine" or not? And since when has the IRS acquired occult powers, along with the rest of its totalitarian armamentarium?

And what about the cherished American institution of the three-martini lunch? Reformers from Carter to Reagan have tried to crush that lunch, and to claim that these are not genuine or worthy business expenses. Net income is arrived at by deducting costs from gross income. But is the three-martini lunch a "genuine" cost of business, or is it a sneaky way of earning income that is not subject to tax? Who knows? Who knows how much genuine business, if any, is conducted at such lunches? Once again, the reformers know! And they know that such deductions can be swept away.

And there is the problem of the corporation. Corporations are entities. Should their income be taxed at the same rate as personal income? Economists have come to recognize that there is no living thing called a corporation. A corporate income tax is a double tax upon stockholders,

first as a “corporation,” and next upon their personal income. But while economists have been increasingly calling for abolition of the corporate tax, the reformers have in their wisdom decided that since all entities’ income must be taxed uniformly, the corporate income tax must be included and even raised if necessary to be taxed at the same rate.

None of these arguments is simple, but it’s instructive that in each and every case, the reformers have come down fiercely on the side of including all these incomes or assets in the taxation category. Their bias in favor of tax, tax, and more tax should be clear by now.

THE ARGUMENT FOR FAIRNESS

The major argument of the flat taxers is that it is “fairness” that demands a swift forced march toward their ideal. “Fairness” is worth almost any cost. But it is strange that this ethical argument comes from a profession (academic economists) who have made a career of loudly proclaiming that all of their doctrines are “value-free science” that have nothing to do with ethics. So when did they become expert ethicists? Indeed, the fairness argument is generally and blithely assumed to be true, after which the reformers can gleefully denounce every resister to higher or broader taxes as embodiments of sinister “special” interests.

One argument holds that fairness demands that everyone pay his or her equal share of the “services” of government. Let us set aside for a moment the surely important point that these “services” are often dubious, are inordinately expensive, and sometimes mean that the taxpayer is forced to pay for his own surveillance and oppression. Since when does “fairness” demand that everyone pay the same proportion of his income for a good or service? Mixed in with the argument for fairness is the view that government should do nothing to penalize one industry or occupation, or subsidize another. This neutral-to-the-market argument puts the flat taxers in the guise of militant adherents of free enterprise. This sounds admirable, but why does it imply that everyone should pay the same proportion of his income? When David Rockefeller and I buy a loaf of Wonder Bread at the supermarket, each of us pays the same price; no one is there to inspect our annual incomes and levy a proportionate fine. No one forces Rockefeller to pay \$1,000 for a loaf of Wonder Bread, just because his income is a thousand times that of the next man. The free market tends toward uniform and equal pricing for each product; one price for everyone, whatever that person’s race, creed, class, color, or income. Why should

it suddenly be different for taxes? In short, a quiet but highly important change has here been made in the concept of “equal,” from equal and uniform price for all on the free market, to equal proportion to income in the hands of the flat taxers.

“SUBSIDY” TRUE AND FALSE

At the heart of the fairness and neutral-to-the-market assumptions of the flat taxers is their express desire to eliminate subsidies, which are assumed to be both evil and non-neutral to the free market. The problem here is an equivocation on the term “subsidy.” It’s certainly true that our tax and budget system is riddled with subsidies, properly defined as taxing one group of people to line the pockets of another, or robbing Peter to pay Paul. If you or I are taxed to subsidize tobacco growers, or highway builders, or contractors, or welfare recipients, then these are indeed subsidies, cases where productive people are being robbed by the government to support groups who function, in effect, as parasites upon the producers. These are subsidies that should be eliminated forthwith. But what about, say, deductions for payment of interest on mortgages, tax credits for investment, or deductions for payment of state and local taxes? In what sense are they “subsidies”? Instead, what is really happening here is that some people—homeowners, investors, or state and local taxpayers—are graciously allowed by the government to keep more of their own money than they would have otherwise. I submit that being allowed to keep more of your hard-earned money is not a subsidy in any true sense; it simply means that you are being fleeced less intensely than you would have been. If a robber assaults you on the highway, and is about to run off with all of your funds, and you persuade him to let you keep some bus fare, is he “subsidizing” you? Surely not. Being allowed to keep your own money can scarcely be called a subsidy.

We are now able to see through two very different senses of the concept of “special interest.” It is all too true that the tobacco planter or the highway contractor who eagerly demands government funds are special interests aggressively dedicated to fleecing the taxpayer. But the investor, or the homeowner, or the venture capitalist, or whatever, who lobbies to be able to keep ‘more of his own money is a “special interest” in a very different sense. They are resisters properly dedicated to defending their own rights and assets against government assault. “Special” they might be, but they are, whether they know it or not, engaged in the noble effort

of defending the rights and the freedoms of all of us against assault and depredation.

By focusing on defenders of their property and rights as alleged subsidy-seekers, the flat taxers are engaging in a strategy of “divide and conquer.” The reformers have taken a growing movement of rebellion, resentment, and call for lower taxes and split the taxpayer forces by encouraging one set of us to seek out and persecute the other set. The flat taxers have managed to shift the focus of discussion from “lower taxes for all” to the proposition: “If you want your taxes to be lower, seek out and confiscate the assets of those bad people whose taxes are ‘unfairly’ low.” The focus becomes raising the other guy’s taxes instead of lowering yours and everyone else’s. This clever ploy of the high taxers unfortunately seems to be working.

The flat taxers like to proclaim their plan to be “revenue-neutral,” that is, the overall tax burden will not change. The lowering of some taxes on upper income groups, then, must be offset by “broadening the base,” or by extending the tax burden to more people and sources of income. But who is to guarantee that once the base is broadened, and more income sources are brought under government’s sway, it will not follow its natural proclivities and once again raise taxes for everyone?

WHAT IS A LOOPHOLE?

It is ironic that the slogan “close the loopholes,” which used to be a hallmark of left-liberalism, has now been adopted by the Reagan administration and by the flat taxers. The great free-market economist Ludwig von Mises once rose up in a conference on taxation that devoted much energy to the closing of tax loopholes, and asked the crucial question: “What is a loophole?” He answered that the assumption of the loophole theorists seemed to be that all of everyone’s income really belongs to the government, and that if the government fails to tax all of it away, it is thereby leaving a “loophole” that must be closed. The same charge applies to the deductions, exemptions, credits, and all the other loopholes out of a flat tax so condemned by our tax reformers.

Let us now consider the vexed question of ending deductibility of state and local taxes—a vital point to our reformers—because ending deductibility will provide a huge bonanza for our federal tax collectors. The flat taxers argue that by allowing deductions, the citizens of low-tax cities and states are “subsidizing” the citizens of high-tax states, and that an end to

deductions will put all regions on a plane of fairness and uniformity. Governor Mario Cuomo, on behalf of the notoriously tax-oppressed citizens of New York, accepted the charge of subsidy, and then eloquently threw it back to the critics of New York, asking, in effect, “What’s wrong with a subsidy? Are you against the citizens of New York subsidizing tobacco farmers in North Carolina, or subsidizing highway contractors in Iowa?” As a rare consistent supporter of left-liberalism, Cuomo was able to reveal the hypocrisy of those whose attacks on subsidies habitually suffer from a convenient double (or triple) standard. Being a left-liberal, Cuomo was not equipped to go one step further—to step outside the mammoth subsidy system and ask the crucial question: Are Iowans really subsidizing New Yorkers under deductibility? Or are the oppressed and cruelly taxed New Yorkers being spared from being doubly taxed on their own income? The average New Yorker is not responsible for his high taxation; he suffers unwillingly under the highest sales, income, and property taxes in the country. Why should he suffer more than the average Iowan? What is so “fair” about that?

The Reagan administration supporters of ending deductibility offer a pragmatic or strategic argument in reply. If you tax New Yorkers higher up by eliminating deductions, then they will rise up and roll back New York state and city taxes to the lower Iowan level. This is the old the-worse-the-better argument that unfortunately, in addition to being strategic rather than moral, never seems to work. One of the main arguments for bringing in the income tax in the early twentieth century was that now, in contrast to the indirect tariff, everyone would directly feel such a tax, and therefore the public would rise up to keep taxes low. Obviously it didn’t work that way. Instead, we kept and increased tariffs, and we exploited a new tax source and raised it to gigantic and crippling proportions.

“FAIRNESS”: EQUAL SLAVERY

One dramatic way of looking at our tax system in relation to the question of subsidy or fairness is to assume for a moment that this is 1850, and that the question arises in the North as to what should be done with slaves who had managed to escape from the South. Let us assume that both sides of a growing debate are ardently in favor of freedom and are opposed to slavery. Group A hails the slaves’ escape and advocates setting them free. But Group B argues as follows:

We are, of course, just as ardent a champion of slave freedom as the people of Group A. But we believe it is unfair for one group of slaves to escape, while the remainder of their brothers and sisters remain in slavery. Therefore, we hold that these escapees should be shipped back into slavery until such time as all the slaves can be freed together and simultaneously.

What would we think of such an argument? To call it specious would be a kindly understatement. But I submit that believers in the free market are arguing in precisely the same way when they say that all taxes must be uniform, and that all specific tax deductions or exemptions must be canceled until such time as everyone's taxes can be reduced uniformly. In both cases, the egalitarians are arguing not for equal freedom but for equal slavery or equal robbery in the name of "fairness." In both cases, the rebuttal holds that the enslavement or plunder of one group can in no way justify the enslavement or plunder of another, be it in the name of fairness, equity, or whatever.

THE ARGUMENT FOR MISALLOCATION OF RESOURCES

The most sophisticated argument of the flat tax reformers is that deductions, exemptions, and loopholes distort the allocation of resources from what it would be on the free market, and therefore should be abolished. This is an integral part of the neutrality-to-the-market argument, and is particularly insidious, because it makes the reformers appear to be knowledgeable and dedicated adherents of the free market. Let us take, for example, two credits or deductions: an investment tax credit, and an energy credit. The reformers argue that the result of the "subsidy" of tax credits is that more resources are now going into investment or energy, and less are going into other areas, than would on the free market, and that therefore these credits should be eliminated.

It is true that more resources are now going into investment, energy, and a slew of other areas, than would have in a purely free market system. But the reformers leave out a crucial point: what is the alternative? If investment, energy, or other credits or deductions are abolished, resources will not automatically go into more productive areas; instead, they go into government, via higher taxes. In short, the alternatives to energy credits are not merely Energy or All Other Consumption and Investment. They are threefold: Energy, Other Forms of Expenditure, and Government. And

a higher tax will simply be wasted, thrown down the rathole of unproductive and profligate government spending. In short, there is no waste—no misallocation—like government; anything else would be an improvement.

THE WAY OUT OF THE MESS

The policy conclusions that flow from our analysis are diametrically opposed to those of the flat taxers. In looking at the history of reform and at the arguments of the flat taxers, one can almost sympathize with Richard L. Doernberg, professor of law at Emory University, who throws up his hands and concludes that “We have a lousy system; let’s leave it alone or it will get worse.” Doernberg urges that the current tax code, as bad as it is, should remain precisely the way it is forever, so that at least people will know the score and be able to plan around its provisions.

But we can do better than that. We have to look differently at taxation. We have to stop looking at taxes as a mighty system for achieving social goals, which merely needs to be made “fair” and rational in order to usher in Utopia. We have to start looking at taxation as a vast system of robbery and oppression, by which some people are enabled to live coercively and parasitically at the expense of others. We must realize that from the point of view of justice or of economic prosperity, the less people are taxed, the better. That is why we should rejoice at every new loophole, new credit, new manifestation of the “underground” economy. The Soviet Union can produce or work only to the extent that individuals are able to avoid the myriad of controls, taxes, and regulations. The same is true of most Third World countries, and the same is increasingly true of us. Every economic activity that escapes taxes and controls is not only a blow for freedom and property rights; it is also one more instance of a free flow of productive energy getting out from under parasitic repression.

That is why we should welcome every new loophole, shelter, credit, or exemption, and work, not to shut them down but to expand them to include everyone else, including ourselves.

If, then, the standard for proper reform is to lower any and all taxes as much as possible, how might government services be supplied? To answer we must take a very hard look at government services. Are they “services,” or are they embodiments of repression? Or are they “services,” at best, that no one really wants? And if they are genuine services, wouldn’t they be supplied more efficiently, as well as voluntarily, by private enterprise? And if our friends the tax reformers are so all-fired concerned about the free market,

shouldn't they answer this question: Why not put your emphasis on privatizing and thereby drastically lowering/eliminating government services? Wouldn't that be really neutral to, and consistent with, the free market? How do we explain the fact that if we go back to the earlier years of our nation, the level of government spending and taxation—even adjusted for inflation and population growth—was enormously less, on every level of jurisdiction, than it is today? And yet the Republic survived, and even flourished.

We must, in short, get past the tax reformers' favorite ploy of revenue neutrality. Why must total revenue remain the same? Instead, it should be lowered drastically, and as much as possible.

We now return to the old question of "fairness": if there are any taxes or government spending left after our drastic cuts, how should the remaining taxes be levied? Here we reopen the point that fairness is the closest possible approximation to neutrality toward the free market. One method would be user fees, so that only direct users would pay for a service and there would be no extra coercion on non-users. For the rest, we should look at the free-market system of one price for a good or service. We might then suggest a system not of equal proportional income tax, but of equal tax, period. This is the age-old system of the "head tax," in which every citizen pays an equal amount each year to the government, in payment for whatever services may have been conferred upon him from governments' existence during that year. The abolition of the income tax would mean the end of snooping and surveillance by the IRS as well as the elimination of vast economic distortions and oppression caused by the system; the end of sales and property taxes would also be a great boon to the freedom and prosperity of Americans.

We would then and only then have a tax system that truly, and at long last, fulfilled the proclaimed goals of our flat tax reformers. For here would be a system that would be truly simple, truly fair, and genuinely neutral to the free market. Short of that goal, we could settle temporarily for former Congressman Ron Paul's (R-TX) interesting variant of the flat tax proposal: reducing all income tax rates to 10 percent, while at the same time keeping all existing deductions, credits, and exemptions. The principle should be clear: to support all reductions in taxes, whether they be by lower rates or widening of exemption and deductions; and to oppose all rate increases or exemption decreases. In short, to seek in every instance to remove the blight of taxation as much as possible. Here is one reform, at least, that could not fall under Mencken's definition of a plot to injure the American taxpayer.

Economic Calculation in the Socialist Commonwealth

Economic Calculation in the Socialist Commonwealth

Ludwig von Mises

Translated from German by S. Adler

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INSTITUTE

AUBURN, ALABAMA

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Foreword

The twentieth century has witnessed the beginning, development, and end of the most tragic experiment in human history: socialism. The experiment resulted in tremendous human losses, destruction of potentially rich economies, and colossal ecological disasters. The experiment has ended, but the devastation will affect the lives and health of generations to come.

The real tragedy of this experiment is that Ludwig von Mises and his followers—among the best economic minds of this century—had exposed the truth about socialism in 1920, yet their warnings went unheeded.

In this essay, “Economic Calculation in the Socialist Commonwealth,” Mises examines Marxism’s most fundamental claims. In doing so, Mises exposes socialism as a utopian scheme that is illogical, uneconomic, and unworkable at its core. It is “impossible” and must fail because it is devoid of economic rationale; it provides no means for any objective basis of economic calculation and thus no way to assign resources to their most productive uses. In 1920, however, the enthusiasm for socialism was so strong, especially among Western intellectuals, that Mises’s short and insightful masterpiece was either not understood or deliberately distorted by his critics.

Yet the actual implementation of socialism showed the complete validity of his analysis. Socialism attempted to replace billions of individual decisions made by sovereign consumers in the market with “rational economic planning” by a few vested with the power to determine the who, what, how, and when of production and consumption. It led to widespread shortages, starvation, and mass frustration of the population. When the Soviet government set 22 million prices, 460,000 wage rates, and over 90 million work quotas for 110 million government employees, chaos and shortages were the inevitable result. The socialist state destroyed work ethic, deprived people of entrepreneurial opportunity and initiative, and led to a widespread welfare mentality.

Socialism produced political monsters like Stalin and Mao Tse-Tung, and led to unheard-of crimes against humanity in all communist states. The destruction of Russia and Kampuchea, the humiliation of the Chinese and Eastern European people, are not “distortions of socialism” as the defenders of this doctrine would like to convince us: they are inevitable consequences of the destruction of the market which started with an attempt to replace the economic decisions of free individuals by the “wisdom of the planners.”

The real character of the so-called centrally planned economy is well illustrated by a quip I heard several years ago by Soviet economist Nikolai Fedorenko. He said that a fully balanced, checked, and detailed economic plan for the next year would be ready, with the help of computers, in 30,000 years. There are millions of product variants; there are hundreds of thousands of enterprises; it is necessary to make billions of decisions on inputs and outputs;

the plans must relate to labor force, material supplies, wages, costs, prices, “planned profits,” investments, transportation, storage, and distribution. These decisions originate from different parts of the planning hierarchy. They are, as a rule, inconsistent and contradictory to each other because they reflect the conflicting interests of different strata of bureaucracy. Because the next year’s plan must be ready by next year, and not in 29,999 years, it is inevitably neither balanced nor rational. And Mises proved that without private property in the means of production, even with 30,000 years of computer time, they still couldn’t make socialism work.

The defenders of socialism found themselves in a theoretical and practical deadlock as soon as they destroyed the institution of private property. Thus they resorted to the creation of artificial schemes. In the Soviet economy, profit is planned as a function of the cost. Enterprises are given “control figures” which determine the “planned profits” as a percentage of the costs. Thus the more you spend, the higher your profits. Under conditions of 100 percent monopolization, this simple device completely ruined the economies of the Soviet Union, Eastern Europe, and other “socialist” states to an extent comparable only to the barbarian invasions of Rome.

Today, the disastrous consequences of enforcing the utopia on the unfortunate populations of the communist states are clear even to their leaders. As Mises predicted, despite the “cloud-cuckoo lands of their fancy,” roasted pigeons failed to fly into the mouths of the comrades. And even according to official Soviet statistics, 234 of 277 basic consumer goods included by the USSR State Committee

on Statistics in the “market basket” of the Soviet people are “missing” from the state distribution system.

Yet Western advocates of socialism are still singing the old tune about the necessity to restrict property rights and replace the market with the “wisdom” of rational central planning.

In 1920, the world neglected or rejected Mises’s warning that “socialism is the abolition of rational economy.” We cannot afford to repeat this mistake today. We must stay alert to all schemes that would draw us into a new round of state experimentation on the people and the economy.

“Private property of the material factors of production,” Mises emphasized, “is not a restriction of the freedom of all other people to choose what suits them. It is, on the contrary, the means that assigns to the common man in his capacity as a buyer, supremacy in all economic affairs. It is the means to stimulate a nation’s most enterprising men to exert themselves to the best of their abilities in the service of all of the people.”

We must never again forget or ignore the insights of this great thinker, for the sake of liberty and the generations to come.

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Introduction to this Edition

Ludwig von Mises's seminal refutation of socialist economics, republished here, was written seventy years ago, but it is a description of the "real socialism" of today—or rather yesterday. Mises's thesis is that in a socialist economy rational economic calculation is impossible; its attempts to allocate resources efficiently in the absence of private ownership of the means of production must fail. The East Bloc's disastrous experience with socialism has shown the world that Mises was correct all along.

In this article, Mises writes of full-blown socialism, where the state is the sole owner of the means of production. Although made so long ago, his description reflects very well the economic realities of the Soviet Union since the late twenties, and of Central and Eastern Europe since the late forties until, practically, today.

In the socialist economy that Mises described, consumption goods are freely demanded and exchanged by individuals of different tastes. Money can exist, but only within the limited sphere of the market for consumer goods. In the sphere of production, however, there is no private ownership of the means of production. They are not exchanged, and as a consequence, it is impossible to

establish prices that reflect actual conditions. If there are no prices, there is no method of finding the most effective combination of the factors of production.

Mises's pathbreaking article led to a famous debate on socialist calculation. Polish economist Oskar Lange contested Mises's position and tried to show that socialism can work by a "trial and error" method.¹ In the Lange model, the economy has a free market for consumption goods. The production sphere is organized into enterprises and branches, and there is a Central Planning Board. The bosses of enterprises are required to establish production plans in exactly the same way the private entrepreneurs would do—in a way that minimizes costs and makes marginal cost equal to price. The Central Planning Board determines the rate of investment, the volume and structure of public goods, and the prices of all inputs. The rate of investment is established by equating the demand and supply of capital goods. The Board raises the prices when the demand is not satisfied and lowers them when supply is too large.

Presuming for a moment that this would work, the question arises: why is this method better than the real market? For Lange, there were two advantages. First, income can be more equally distributed. Since there is no capital income, people are paid according to their input labor. (Some talented people receive additional income which is a sort of "rent" on their particular skills.) Second, socialism allows for better planning of long-term

¹Oskar Lange, "On the Economic Theory of Socialism," *Review of Economic Studies* (1936–37).

investment. Investment will not be directed by short-term fluctuation of opinions about future opportunities, and thus it would be less wasteful and more rational. Similar to John Maynard Keynes and, later, Paul Samuelson, Lange thought that although the free market may give proper signals concerning short-term production decisions, it does not give long-term signals concerning investment.

Lange used neoclassical, not Marxist terminology. Although he was a socialist by conviction, he was fascinated by the intellectual side of marginalist economics and by the possibility of showing with this apparatus that Mises was wrong. Lange thought that, theoretically, the possibility of calculation without an actual market was shown by the Italian economist Enrico Barone in 1908.² Barone referred to a system of general equilibrium saying that if the sets of equations could be solved, the partial equilibria of producers and consumers could be established *ex ante*. Barone's point was, however, that such a possibility is practically impossible, so (similar to Mises) he supported the view that socialism cannot work efficiently. Lange's aim was to show that both Mises and Barone were wrong (but Mises to a larger degree) and that theoretically and practically, calculation was possible.

Lange thought he had finally solved the problems of socialist calculation that Mises had demonstrated in his essay "Economic Calculation in the Socialist Commonwealth." And to this point Lange wrote in his article "On the Economic Theory of Socialism":

²Enrico Barone, "Il ministero della produzione nello stato collettivista," *Giornale degli Economisti e Rivista di Statistica* 37 (1908).

Socialists have certainly good reason to be grateful to Professor Mises, the great *advocatus diaboli* of their cause. For it was his powerful challenge that forced the socialists to recognize the importance of an adequate system of economic accounting to guide the allocation of resources in a socialist economy. Even more, it was chiefly due to Professor Mises' challenge that many socialists became aware of the very existence of such a problem. . . . [T]he merit of having caused the socialists to approach this problem systematically belongs entirely to Professor Mises.

Thus Lange suggested the following:

Both as an expression of recognition for the great service rendered by him and as a memento of the prime importance of sound economic accounting, a statue of Professor Mises ought to occupy an honorable place in the great hall of the Ministry of Socialization or of the Central Planning Board of the socialist state.

Lange's theoretical views, as well as his conviction of the practical applicability of a "shadow market" in the socialist economy, were, in turn, questioned by Friedrich A. Hayek.³ Hayek thought that Lange had committed many errors. In Lange's version of socialism, an army of controllers would be needed to verify the calculations of the heads of enterprises. But what would motivate the heads of enterprises and branches? Would they be prevented from cheating. Moreover, the results of these calculations

³Friedrich A. Hayek, "Socialist Calculation: the Competitive 'Solution'," *Economica*, ns. vii, no. 26 (1940).

would have to be compared with additional, counterfactual calculations in order to see whether the bosses of enterprises have chosen the best combination of factors of production possible. All this would call for an enormous bureaucratic state.

The practical side of socialism took its own course. A communist economy as we know it was constructed in the Soviet Union in the late twenties and early thirties and then transplanted to Central and Eastern Europe after World War II. For a time it seemed to have worked well, at least from the point of view of the ruling bureaucracies, who did not hesitate to use totalitarian measures and mass terror.

There was no place for private ownership, nor for the market. The only method of coordinating economic activity was government command and bureaucratic allocation. The result was a prolonged crisis, marked by a stagnation or decrease of production, by inflation, ecological disaster (because of wasteful use of all types of resources—energy, water, forests, etc.), by falling standards of living, and by widespread public frustration and social pathology. This crisis, coupled with political developments including the rise of an organized opposition, brought about the revolutionary changes we witnessed in 1989.

In Eastern European countries, and in Poland in particular, there is now a strong desire to reintroduce private property and the free market.

When it has been accomplished, perhaps Lange's suggestion should be taken up: a statue of Mises should be erected in Poland—in tribute to his final intellectual triumph. For his vision of a free society provides firm

intellectual grounding for the emergence of a free and prosperous Poland.

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April 1990

Introduction

By Ludwig von Mises

There are many socialists who have never come to grips in any way with the problems of economics, and who have made no attempt at all to form for themselves any clear conception of the conditions which determine the character of human society. There are others, who have probed deeply into the economic history of the past and present, and striven, on this basis, to construct a theory of economics of the “bourgeois” society. They have criticized freely enough the economic structure of “free” society, but have consistently neglected to apply to the economics of the disputed socialist state the same caustic acumen, which they have revealed elsewhere, not always with success. Economics, as such, figures all too sparsely in the glamorous pictures painted by the Utopians. They invariably explain how, in the cloud-cuckoo lands of their fancy, roast pigeons will in some way fly into the mouths of the comrades, but they omit to show how this miracle is to take place. Where they do in fact commence to be more explicit in the domain of economics, they soon find themselves at a loss—one remembers, for instance, Proudhon’s fantastic dreams of an “exchange bank”—so that it is not difficult to point out their logical fallacies. When Marxism solemnly

forbids its adherents to concern themselves with economic problems beyond the expropriation of the expropriators, it adopts no new principle, since the Utopians throughout their descriptions have also neglected all economic considerations, and concentrated attention solely upon painting lurid pictures of existing conditions and glowing pictures of that golden age which is the natural consequence of the New Dispensation.

Whether one regards the coming of socialism as an unavoidable result of human evolution, or considers the socialization of the means of production as the greatest blessing or the worst disaster that can befall mankind, one must at least concede, that investigation into the conditions of society organized upon a socialist basis is of value as something more than “a good mental exercise, and a means of promoting political clearness and consistency of thought.”¹ In an age in which we are approaching nearer and nearer to socialism, and even, in a certain sense, are dominated by it, research into the problems of the socialist state acquires added significance for the explanation of what is going on around us. Previous analyses of the exchange economy no longer suffice for a proper understanding of social phenomena in Germany and its eastern neighbors today. Our task in this connection is to embrace within a fairly wide range the elements of socialistic society. Attempts to achieve clarity on this subject need no further justification.

¹Karl Kautsky, *The Social Revolution and On the Morrow of the Social Revolution* (London: Twentieth Century Press, 1907), Part II, p. 1.

1

The Distribution of Consumption Goods in the Socialist Commonwealth

Under socialism all the means of production are the property of the community. It is the community alone which can dispose of them and which determines their use in production. It goes without saying that the community will only be in a position to employ its powers of disposal through the setting up of a special body for the purpose. The structure of this body and the question of how it will articulate and represent the communal will is for us of subsidiary importance. One may assume that this last will depend upon the choice of personnel, and in cases where the power is not vested in a dictatorship, upon the majority vote of the members of the corporation.

The owner of production goods, who has manufactured consumption goods and thus becomes their owner, now has the choice of either consuming them himself or of having them consumed by others. But where the community becomes the owner of consumption goods, which

it has acquired in production, such a choice will no longer obtain. It cannot itself consume; it has perforce to allow others to do so. Who is to do the consuming and what is to be consumed by each is the crux of the problem of socialist distribution.

It is characteristic of socialism that the distribution of consumption goods must be independent of the question of production and of its economic conditions. It is irreconcilable with the nature of the communal ownership of production goods that it should rely even for a part of its distribution upon the economic imputation of the yield to the particular factors of production. It is logically absurd to speak of the worker's enjoying the "full yield" of his work, and then to subject to a separate distribution the shares of the material factors of production. For, as we shall show, it lies in the very nature of socialist production that the shares of the particular factors of production in the national dividend cannot be ascertained, and that it is impossible in fact to gauge the relationship between expenditure and income.

What basis will be chosen for the distribution of consumption goods among the individual comrades is for us a consideration of more or less secondary importance. Whether they will be apportioned according to individual needs, so that he gets most who needs most, or whether the superior man is to receive more than the inferior, or whether a strictly equal distribution is envisaged as the ideal, or whether service to the State is to be the criterion, is immaterial to the fact that, in any event, the portions will be meted out by the State.

Let us assume the simple proposition that distribution will be determined upon the principle that the State treats all its members alike; it is not difficult to conceive of a number of peculiarities such as age, sex, health, occupation, etc., according to which what each receives will be graded. Each comrade receives a bundle of coupons, redeemable within a certain period against a definite quantity of certain specified goods. And so he can eat several times a day, find permanent lodgings, occasional amusements and a new suit every now and again. Whether such provision for these needs is ample or not, will depend on the productivity of social labor.

Moreover, it is not necessary that every man should consume the whole of his portion. He may let some of it perish without consuming it; he may give it away in presents; he may even in so far as the nature of the goods permit, hoard it for future use. He can, however, also exchange some of them. The beer tippler will gladly dispose of non-alcoholic drinks allotted to him, if he can get more beer in exchange, whilst the teetotaler will be ready to give up his portion of drink if he can get other goods for it. The art lover will be willing to dispose of his cinema tickets in order the more often to hear good music; the Philistine will be quite prepared to give up the tickets which admit him to art exhibitions in return for opportunities for pleasure he more readily understands. They will all welcome exchanges. But the material of these exchanges will always be consumption goods. Production goods in a socialist commonwealth are exclusively communal; they are an inalienable property of the community, and thus *res extra commercium*.

The principle of exchange can thus operate freely in a socialist state within the narrow limits permitted. It need not always develop in the form of direct exchanges. The same grounds which have always existed for the building-up of indirect exchange will continue in a socialist state, to place advantages in the way of those who indulge in it. It follows that the socialist state will thus also afford room for the use of a universal medium of exchange—that is, of money. Its role will be fundamentally the same in a socialist as in a competitive society; in both it serves as the universal medium of exchange. Yet the significance of money in a society where the means of production are State controlled will be different from that which attaches to it in one where they are privately owned. It will be, in fact, incomparably narrower, since the material available for exchange will be narrower, inasmuch as it will be confined to consumption goods. Moreover, just because no production good will ever become the object of exchange, it will be impossible to determine its monetary value. Money could never fill in a socialist state the role it fills in a competitive society in determining the value of production goods. Calculation in terms of money will here be impossible.

The relationships which result from this system of exchange between comrades cannot be disregarded by those responsible for the administration and distribution of products. They must take these relationships as their basis, when they seek to distribute goods per head in accordance with their exchange value. If, for instance 1 cigar becomes equal to 5 cigarettes, it will be impossible for the administration to fix the arbitrary value of 1 cigar = 3 cigarettes

as a basis for the equal distribution of cigars and cigarettes respectively. If the tobacco coupons are not to be redeemed uniformly for each individual, partly against cigars, partly against cigarettes, and if some receive only cigars and others only cigarettes, either because that is their wish or because the coupon office cannot do anything else at the moment, the market conditions of exchange would then have to be observed. Otherwise everybody getting cigarettes would suffer as against those getting cigars. For the man who gets one cigar can exchange it for five cigarettes, and he is only marked down with three cigarettes.

Variations in exchange relations in the dealings between comrades will therefore entail corresponding variations in the administrations' estimates of the representative character of the different consumption-goods. Every such variation shows that a gap has appeared between the particular needs of comrades and their satisfactions because in fact, some one commodity is more strongly desired than another.

The administration will indeed take pains to bear this point in mind also as regards production. Articles in greater demand will have to be produced in greater quantities while production of those which are less demanded will have to suffer a curtailment. Such control may be possible, but one thing it will not be free to do; it must not leave it to the individual comrade to ask the value of his tobacco ticket either in cigars or cigarettes at will. If the comrade were to have the right of choice, then it might well be that the demand for cigars and cigarettes would exceed the supply, or vice versa, that cigars or cigarettes pile up in the distributing offices because no one will take them.

If one adopts the standpoint of the labor theory of value, the problem freely admits of a simple solution. The comrade is then marked up for every hour's work put in, and this entitles him to receive the product of one hour's labor, less the amount deducted for meeting such obligations of the community as a whole as maintenance of the unfit, education, etc.

Taking the amount deducted for covering communal expenses as one half of the labor product, each worker who had worked a full hour would be entitled only to obtain such amount of the product as really answered to half an hour's work. Accordingly, anybody who is in a position to offer twice the labor time taken in manufacturing an article, could take it from the market and transfer to his own use or consumption. For the clarification of our problem it will be better to assume that the State does not in fact deduct anything from the workers towards meeting its obligations, but instead imposes an income tax on its working members. In that way every hour of work put in would carry with it the right of taking for oneself such amount of goods as entailed an hour's work.

Yet such a manner of regulating distribution would be unworkable, since labor is not a uniform and homogeneous quantity. Between various types of labor there is necessarily a qualitative difference, which leads to a different valuation according to the difference in the conditions of demand for and supply of their products. For instance, the supply of pictures cannot be increased *ceteris paribus*, without damage to the quality of the product. Yet one cannot allow the laborer who had put in an hour of the most simple type of labor to be entitled to the product of an

hour's higher type of labor. Hence, it becomes utterly impossible in any socialist community to posit a connection between the significance to the community of any type of labor and the apportionment of the yield of the communal process of production. The remuneration of labor cannot but proceed upon an arbitrary basis; it cannot be based upon the economic valuation of the yield as in a competitive state of society, where the means of production are in private hands, since—as we have seen—any such valuation is impossible in a socialist community. Economic realities impose clear limits to the community's power of fixing the remuneration of labor on an arbitrary basis: in no circumstances can the sum expended on wages exceed the income for any length of time.

Within these limits it can do as it will. It can rule forthwith that all labor is to be reckoned of equal worth, so that every hour of work, whatever its quality, entails the same reward; it can equally well make a distinction in regard to the quality of work done. Yet in both cases it must reserve the power to control the particular distribution of the labor product. It will never be able to arrange that he who has put in an hour's labor shall also have the right to consume the product of an hour's labor, even leaving aside the question of differences in the quality of the labor and the products, and assuming moreover that it would be possible to gauge the amount of labor represented by any given article. For, over and above the actual labor, the production of all economic goods entails also the cost of materials. An article in which more raw material is used can never be reckoned of equal value with one in which less is used.

2

The Nature of Economic Calculation

Every man who, in the course of economic life, takes a choice between the satisfaction of one need as against another, *eo ipso* makes a judgment of value. Such judgments of value at once include only the very satisfaction of the need itself; and from this they reflect back upon the goods of a lower, and then further upon goods of a higher order.¹ As a rule, the man who knows his own mind is in a position to value goods of a lower order. Under simple conditions it is also possible for him without much ado to form some judgment of the significance to him of goods of a higher order. But where the state of affairs is more involved and their interconnections not so easily discernible, subtler means must be employed to accomplish a correct² valuation of the means of production. It would

¹[By “lower order” Mises refers to those goods made for final consumption, and by “higher order” those used in production.]

²Using that term, of course, in the sense only of the valuating subject, and not in an objective and universally applicable sense.

not be difficult for a farmer in economic isolation to come by a distinction between the expansion of pasture-farming and the development of activity in the hunting field. In such a case the processes of production involved are relatively short and the expense and income entailed can be easily gauged. But it is quite a different matter when the choice lies between the utilization of a water-course for the manufacture of electricity or the extension of a coal mine or the drawing up of plans for the better employment of the energies latent in raw coal. Here the roundabout processes of production are many and each is very lengthy; here the conditions necessary for the success of the enterprises which are to be initiated are diverse, so that one cannot apply merely vague valuations, but requires rather more exact estimates and some judgment of the economic issues actually involved.

Valuation can only take place in terms of units, yet it is impossible that there should ever be a unit of subjective use value for goods. Marginal utility does not posit any unit of value, since it is obvious that the value of two units of a given stock is necessarily greater than, but less than double, the value of a single unit. Judgments of value do not measure; they merely establish grades and scales.³ Even Robinson Crusoe, when he has to make a decision where no ready judgment of value appears and where he has to construct one upon the basis of a more or less exact estimate, cannot operate solely with subjective use value, but must take into consideration the intersubstitutability

³Franz Čuhel, *Zur Lehre von den Bedürfnissen* (Innsbruck: Wagner'ssche Universität-Buchhandlung, 1907), pp. 198 f.

of goods on the basis of which he can then form his estimates. In such circumstances it will be impossible for him to refer all things back to one unit. Rather will he, so far as he can, refer all the elements which have to be taken into account in forming his estimate to those economic goods which can be apprehended by an obvious judgment of value—that is to say, to goods of a lower order and to pain-cost. That this is only possible in very simple conditions is obvious. In the case of more complicated and more lengthy processes of production it will, plainly, not answer.

In an exchange economy the objective exchange value of commodities enters as the unit of economic calculation. This entails a threefold advantage. In the first place, it renders it possible to base the calculation upon the valuations of all participants in trade. The subjective use value of each is not immediately comparable as a purely individual phenomenon with the subjective use value of other men. It only becomes so in exchange value, which arises out of the interplay of the subjective valuations of all who take part in exchange. But in that case calculation by exchange value furnishes a control over the appropriate employment of goods. Anyone who wishes to make calculations in regard to a complicated process of production will immediately notice whether he has worked more economically than others or not; if he finds, from reference to the exchange relations obtaining in the market, that he will not be able to produce profitably, this shows that others understand how to make a better use of the goods of higher order in question. Lastly, calculation by exchange value makes it possible to refer values back to a unit. For this purpose, since goods are mutually substitutable in accordance with

the exchange relations obtaining in the market, any possible good can be chosen. In a monetary economy it is money that is so chosen.

Monetary calculation has its limits. Money is no yardstick of value, nor yet of price. Value is not indeed measured in money, nor is price. They merely consist in money. Money as an economic good is not of stable value as has been naïvely, but wrongly, assumed in using it as a “standard of deferred payments.” The exchange-relationship which obtains between money and goods is subjected to constant, if (as a rule) not too violent, fluctuations originating not only from the side of other economic goods, but also from the side of money. However, these fluctuations disturb value calculations only in the slightest degree, since usually, in view of the ceaseless alternations in other economic data—these calculations will refer only to comparatively short periods of time—periods in which “good” money, at least normally, undergoes comparatively trivial fluctuations in regard to its exchange relations. The inadequacy of the monetary calculation of value does not have its mainspring in the fact that value is then calculated in terms of a universal medium of exchange, namely money, but rather in the fact that in this system it is exchange value and not subjective use value on which the calculation is based. It can never obtain as a measure for the calculation of those value determining elements which stand outside the domain of exchange transactions. If, for example, a man were to calculate the profitability of erecting a waterworks, he would not be able to include in his calculation the beauty of the waterfall which the scheme might impair, except that he may pay attention to the diminution of

tourist traffic or similar changes, which may be valued in terms of money. Yet these considerations might well prove one of the factors in deciding whether or not the building is to go up at all.

It is customary to term such elements "extra-economic." This perhaps is appropriate; we are not concerned with disputes over terminology; yet the considerations themselves can scarcely be termed irrational. In any place where men regard as significant the beauty of a neighborhood or of a building, the health, happiness and contentment of mankind, the honor of individuals or nations, they are just as much motive forces of rational conduct as are economic factors in the proper sense of the word, even where they are not substitutable against each other on the market and therefore do not enter into exchange relationships.

That monetary calculation cannot embrace these factors lies in its very nature; but for the purposes of our everyday economic life this does not detract from the significance of monetary calculation. For all those ideal goods are goods of a lower order, and can hence be embraced straightway within the ambit of our judgment of values. There is therefore no difficulty in taking them into account, even though they must remain outside the sphere of monetary value. That they do not admit of such computation renders their consideration in the affairs of life easier and not harder. Once we see clearly how highly we value beauty, health, honor and pride, surely nothing can prevent us from paying a corresponding regard to them. It may seem painful to any sensitive spirit to have to balance spiritual goods against material. But that is not the fault of monetary calculation; it lies in the very nature of things

themselves. Even where judgments of value can be established directly without computation in value or in money, the necessity of choosing between material and spiritual satisfaction cannot be evaded. Robinson Crusoe and the socialist state have an equal obligation to make the choice.

Anyone with a genuine sense of moral values experiences no hardship in deciding between honor and livelihood. He knows his plain duty. If a man cannot make honor his bread, yet can he renounce his bread for honor's sake. Only they who prefer to be relieved of the agony of this decision, because they cannot bring themselves to renounce material comfort for the sake of spiritual advantage, see in the choice a profanation of true values.

Monetary calculation only has meaning within the sphere of economic organization. It is a system whereby the rules of economics may be applied in the disposition of economic goods. Economic goods only have part in this system in proportion to the extent to which they may be exchanged for money. Any extension of the sphere of monetary calculation causes misunderstanding. It cannot be regarded as constituting a kind of yardstick for the valuation of goods, and cannot be so treated in historical investigations into the development of social relationships; it cannot be used as a criterion of national wealth and income, nor as a means of gauging the value of goods which stand outside the sphere of exchange, as who should seek to estimate the extent of human losses through emigrations or wars in terms of money?⁴ This is mere sciolic

⁴Cf. Friedrich von Wieser, *Über den Ursprung und die Hauptgesetze des wirtschaftlichen Eertes* (Vienna: A. Hölder, 1884), pp. 185 f.

tomfoolery, however much it may be indulged in by otherwise perspicacious economists.

Nevertheless within these limits, which in economic life it never oversteps, monetary calculation fulfils all the requirements of economic calculation. It affords us a guide through the oppressive plenitude of economic potentialities. It enables us to extend to all goods of a higher order the judgment of value, which is bound up with and clearly evident in, the case of goods ready for consumption, or at best of production goods of the lowest order. It renders their value capable of computation and thereby gives us the primary basis for all economic operations with goods of a higher order. Without it, all production involving processes stretching well back in time and all the longer roundabout processes of capitalistic production would be gropings in the dark.

There are two conditions governing the possibility of calculating value in terms of money. Firstly, not only must goods of a lower, but also those of a higher order, come within the ambit of exchange, if they are to be included. If they do not do so, exchange relationships would not arise. True enough, the considerations which must obtain in the case of Robinson Crusoe prepared, within the range of his own hearth, to exchange, by production, labor and flour for bread, are indistinguishable from those which obtain when he is prepared to exchange bread for clothes in the open market, and, therefore, it is to some extent true to say that every economic action, including Robinson Crusoe's own

production, can be termed *exchange*.⁵ Moreover, the mind of one man alone—be it ever so cunning, is too weak to grasp the importance of any single one among the countless many goods of a higher order. No single man can ever master all the possibilities of production, innumerable as they are, as to be in a position to make straightway evident judgments of value without the aid of some system of computation. The distribution among a number of individuals of administrative control over economic goods in a community of men who take part in the labor of producing them, and who are economically interested in them, entails a kind of intellectual division of labor, which would not be possible without some system of calculating production and without economy.

The second condition is that there exists in fact a universally employed medium of exchange—namely, money—which plays the same part as a medium in the exchange of production goods also. If this were not the case, it would not be possible to reduce all exchange-relationships to a common denominator.

Only under simple conditions can economics dispense with monetary calculation. Within the narrow confines of household economy, for instance, where the father can supervise the entire economic management, it is possible to determine the significance of changes in the processes of production, without such aids to the mind,

⁵Cf. Mises, *Theorie des Geldes und der Umlaufsmittel* (Munich and Leipzig: Duncker & Humblot, 1912), p. 16, with the references there given. [See the English translation by H.E. Batson, *The Theory of Money and Credit* (Indianapolis: Liberty Classics, 1980), p. 52.]

and yet with more or less of accuracy. In such a case the process develops under a relatively limited use of capital. Few of the capitalistic roundabout processes of production are here introduced: what is manufactured is, as a rule, consumption goods or at least such goods of a higher order as stand very near to consumption-goods. The division of labor is in its rudimentary stages: one and the same laborer controls the labor of what is in effect, a complete process of production of goods ready for consumption, from beginning to end. All this is different, however, in developed communal production. The experiences of a remote and bygone period of simple production do not provide any sort of argument for establishing the possibility of an economic system without monetary calculation.

In the narrow confines of a closed household economy, it is possible throughout to review the process of production from beginning to end, and to judge all the time whether one or another mode of procedure yields more consumable goods. This, however, is no longer possible in the incomparably more involved circumstances of our own social economy. It will be evident, even in the socialist society, that 1,000 hectolitres of wine are better than 800, and it is not difficult to decide whether it desires 1,000 hectolitres of wine rather than 500 of oil. There is no need for any system of calculation to establish this fact: the deciding element is the will of the economic subjects involved. But once this decision has been taken, the real task of rational economic direction only commences, i.e., economically, to place the means at the service of the end. That can only be done with some kind of economic calculation. The human mind cannot orientate itself properly

among the bewildering mass of intermediate products and potentialities of production without such aid. It would simply stand perplexed before the problems of management and location.⁶

It is an illusion to imagine that in a socialist state calculation *in natura* can take the place of monetary calculation. Calculation *in natura*, in an economy without exchange, can embrace consumption goods only; it completely fails when it comes to dealing with goods of a higher order. And as soon as one gives up the conception of a freely established monetary price for goods of a higher order, rational production becomes completely impossible. Every step that takes us away from private ownership of the means of production and from the use of money also takes us away from rational economics.

It is easy to overlook this fact, considering that the extent to which socialism is in evidence among us constitutes only a socialistic oasis in a society with monetary exchange, which is still a free society to a certain degree. In one sense we may agree with the socialists' assertion which is otherwise entirely untenable and advanced only as a demagogic point, to the effect that the nationalization and municipalization of enterprise is not really socialism, since these concerns in their business organizations are so much dependent upon the enviroing economic system with its free commerce that they cannot be said to partake today of the really essential nature of a socialist economy. In state

⁶Friedrich von Gottl-Ottlilienfeld, *Wirtschaft und Technik (Grundriss der Sozialökonomik*, Section II; Tübingen: J.C.B. Mohr, 1914), p. 216.

and municipal undertakings technical improvements are introduced because their effect in similar private enterprises, domestic or foreign, can be noticed, and because those private industries which produce the materials for these improvements give the impulse for their introduction. In these concerns the advantages of reorganization can be established, because they operate within the sphere of a society based upon private ownership of the means of production and upon the system of monetary exchange, being thus capable of computation and account. This state of affairs, however, could not obtain in the case of socialist concerns operating in a purely socialistic environment.

Without economic calculation there can be no economy. Hence, in a socialist state wherein the pursuit of economic calculation is impossible, there can be—in our sense of the term—no economy whatsoever. In trivial and secondary matters rational conduct might still be possible, but in general it would be impossible to speak of rational production any more. There would be no means of determining what was rational, and hence it is obvious that production could never be directed by economic considerations. What this means is clear enough, apart from its effects on the supply of commodities. Rational conduct would be divorced from the very ground which is its proper domain. Would there, in fact, be any such thing as rational conduct at all, or, indeed, such a thing as rationality and logic in thought itself? Historically, human rationality is a development of economic life. Could it then obtain when divorced therefrom?

For a time the remembrance of the experiences gained in a competitive economy, which has obtained for some

thousands of years, may provide a check to the complete collapse of the art of economy. The older methods of procedure might be retained not because of their rationality but because they appear to be hallowed by tradition. Actually, they would meanwhile have become irrational, as no longer comporting with the new conditions. Eventually, through the general reconstruction of economic thought, they will experience alterations which will render them in fact uneconomic. The supply of goods will no longer proceed anarchically of its own accord; that is true. All transactions which serve the purpose of meeting requirements will be subject to the control of a supreme authority. Yet in place of the economy of the "anarchic" method of production, recourse will be had to the senseless output of an absurd apparatus. The wheels will turn, but will run to no effect.

One may anticipate the nature of the future socialist society. There will be hundreds and thousands of factories in operation. Very few of these will be producing wares ready for use; in the majority of cases what will be manufactured will be unfinished goods and production goods. All these concerns will be interrelated. Every good will go through a whole series of stages before it is ready for use. In the ceaseless toil and moil of this process, however, the administration will be without any means of testing their bearings. It will never be able to determine whether a given good has not been kept for a superfluous length of time in the necessary processes of production, or whether work and material have not been wasted in its completion. How will it be able to decide whether this or that method of production is the more profitable? At best it will only be able

to compare the quality and quantity of the consumable end product produced, but will in the rarest cases be in a position to compare the expenses entailed in production. It will know, or think it knows, the ends to be achieved by economic organization, and will have to regulate its activities accordingly, i.e., it will have to attain those ends with the least expense. It will have to make its computations with a view to finding the cheapest way. This computation will naturally have to be a value computation. It is eminently clear, and requires no further proof, that it cannot be of a technical character, and that it cannot be based upon the objective use value of goods and services.

Now, in the economic system of private ownership of the means of production, the system of computation by value is necessarily employed by each independent member of society. Everybody participates in its emergence in a double way: on the one hand as a consumer and on the other as a producer. As a consumer he establishes a scale of valuation for goods ready for use in consumption. As a producer he puts goods of a higher order into such use as produces the greatest return. In this way all goods of a higher order receive a position in the scale of valuations in accordance with the immediate state of social conditions of production and of social needs. Through the interplay of these two processes of valuation, means will be afforded for governing both consumption and production by the economic principle throughout. Every graded system of pricing proceeds from the fact that men always and ever harmonized their own requirements with their estimation of economic facts.

All this is necessarily absent from a socialist state. The administration may know exactly what goods are most urgently needed. But in so doing, it has only found what is, in fact, but one of the two necessary prerequisites for economic calculation. In the nature of the case it must, however, dispense with the other—the valuation of the means of production. It may establish the value attained by the totality of the means of production; this is obviously identical with that of all the needs thereby satisfied. It may also be able to calculate the value of any means of production by calculating the consequence of its withdrawal in relation to the satisfaction of needs. Yet it cannot reduce this value to the uniform expression of a money price, as can a competitive economy, wherein all prices can be referred back to a common expression in terms of money. In a socialist commonwealth which, whilst it need not of necessity dispense with money altogether, yet finds it impossible to use money as an expression of the price of the factors of production (including labor), money can play no role in economic calculation.⁷

Picture the building of a new railroad. Should it be built at all, and if so, which out of a number of conceivable roads should be built? In a competitive and monetary economy, this question would be answered by monetary

⁷This fact is also recognized by Otto Neurath (*Durch die Kriegswirtschaft zur Naturalwirtschaft* [Munich: G.D.W. Callwey, 1919], pp. 216 f.). He advances the view that every complete administrative economy is, in the final analysis, a natural economy. "Socialization," he says, "is thus the pursuit of natural economy." Neurath merely overlooks the insuperable difficulties that would have to develop with economic calculation in the socialist commonwealth.

calculation. The new road will render less expensive the transport of some goods, and it may be possible to calculate whether this reduction of expense transcends that involved in the building and upkeep of the next line. That can only be calculated in money. It is not possible to attain the desired end merely by counterbalancing the various physical expenses and physical savings. Where one cannot express hours of labor, iron, coal, all kinds of building material, machines and other things necessary for the construction and upkeep of the railroad in a common unit it is not possible to make calculations at all. The drawing up of bills on an economic basis is only possible where all the goods concerned can be referred back to money. Admittedly, monetary calculation has its inconveniences and serious defects, but we have certainly nothing better to put in its place, and for the practical purposes of life monetary calculation as it exists under a sound monetary system always suffices. Were we to dispense with it, any economic system of calculation would become absolutely impossible.

The socialist society would know how to look after itself. It would issue an edict and decide for or against the projected building. Yet this decision would depend at best upon vague estimates; it would never be based upon the foundation of an exact calculation of value.

The static state can dispense with economic calculation. For here the same events in economic life are ever recurring; and if we assume that the first disposition of the static socialist economy follows on the basis of the final state of the competitive economy, we might at all events conceive of a socialist production system which is rationally controlled

from an economic point of view. But this is only conceptually possible. For the moment, we leave aside the fact that a static state is impossible in real life, as our economic data are forever changing, so that the static nature of economic activity is only a theoretical assumption corresponding to no real state of affairs, however necessary it may be for our thinking and for the perfection of our knowledge of economics. Even so, we must assume that the transition to socialism must, as a consequence of the levelling out of the differences in income and the resultant readjustments in consumption, and therefore production, change all economic data in such a way that a connecting link with the final state of affairs in the previously existing competitive economy becomes impossible. But then we have the spectacle of a socialist economic order floundering in the ocean of possible and conceivable economic combinations without the compass of economic calculation.

Thus in the socialist commonwealth every economic change becomes an undertaking whose success can be neither appraised in advance nor later retrospectively determined. There is only groping in the dark. Socialism is the abolition of rational economy.

3

Economic Calculation in the Socialist Commonwealth

Are we really dealing with the necessary consequences of common ownership of the means of production? Is there no way in which some kind of economic calculation might be tied up with a socialist system?

In every great enterprise, each particular business or branch of business is to some extent independent in its accounting. It reckons the labor and material against each other, and it is always possible for each individual group to strike a particular balance and to approach the economic results of its activities from an accounting point of view. We can thus ascertain with what success each particular section has labored, and accordingly draw conclusions about the reorganization, curtailment, abandonment, or expansion of existing groups and about the institution of new ones. Admittedly, some mistakes are inevitable in such a calculation. They arise partly from the difficulties consequent upon an allocation of general expenses. Yet other mistakes arise from the necessity of calculating with what are not

from many points of view rigorously ascertainable data, e.g., when in the ascertainment of the profitability of a certain method of procedure we compute the amortization of the machines used on the assumption of a given duration for their usefulness. Still, all such mistakes can be confined within certain narrow limits, so that they do not disturb the net result of the calculation. What remains of uncertainty comes into the calculation of the uncertainty of future conditions, which is an inevitable concomitant of the dynamic nature of economic life.

It seems tempting to try to construct by analogy a separate estimation of the particular production groups in the socialist state also. But it is quite impossible. For each separate calculation of the particular branches of one and the same enterprise depends exclusively on the fact that is precisely in market dealings that market prices to be taken as the bases of calculation are formed for all kinds of goods and labor employed. Where there is no free market, there is no pricing mechanism; without a pricing mechanism, there is no economic calculation.

We might conceive of a situation, in which exchange between particular branches of business is permitted, so as to obtain the mechanism of exchange relations (prices) and thus create a basis for economic calculation even in the socialist commonwealth. Within the framework of a uniform economy knowing not private ownership of the means of production, individual labor groups are constituted independent and authoritative disposers, which have indeed to behave in accordance with the directions of the supreme economic council, but which nevertheless assign each other material goods and services only against a payment,

which would have to be made in the general medium of exchange. It is roughly in this way that we conceive of the organization of the socialist running of business when we nowadays talk of complete socialization and the like. But we have still not come to the crucial point. Exchange relations between production goods can only be established on the basis of private ownership of the means of production. When the "coal syndicate" provides the "iron syndicate" with coal, no price can be formed, except when both syndicates are the owners of the means of production employed in their business. This would not be socialization but workers' capitalism and syndicalism.

The matter is indeed very simple for those socialist theorists who rely on the labor theory of value.

As soon as society takes possession of the means of production and applies them to production in their directly socialised form, each individual's labour, however different its specific utility may be, becomes *a priori* and directly social labour. The amount of social labour invested in a product need not then be established indirectly; daily experience immediately tells us how much is necessary on an average. Society can simply calculate how many hours of labour are invested in a steam engine, a quarter of last harvest's wheat, and a 100 yards of linen of given quality. . . . To be sure, society will also have to know how much labour is needed to produce any consumption-good. It will have to arrange its production plan according to its means of production, to which labour especially belongs. The utility yielded by the various consumption-goods, weighted against each

other and against the amount of labour required to produce them, will ultimately determine the plan. People will make everything simple without the mediation of the notorious “value.”⁸

Here it is not our task once more to advance critical objections against the labor theory of value. In this connection they can only interest us in so far as they are relevant to an assessment of the applicability of labor in the value computations of a socialist community.

On a first impression calculation in terms of labor also takes into consideration the natural non-human conditions of production. The law of diminishing returns is already allowed for in the concept of socially necessary average labor time to the extent that its operation is due to the variety of the natural conditions of production. If the demand for a commodity increases and worse natural resources must be exploited, then the average socially necessary labor time required for the production of a unit increases too. If more favorable natural resources are discovered, the amount of socially necessary labor diminishes.⁹ The consideration of the natural condition of production suffices only in so far as it is reflected in the amount of labor socially necessary. But it is in this respect that valuation in terms of labor fails. It leaves the employment of material factors of production out of account. Let the amount of

⁸Friedrich Engels, *Herrn Eugen Dührings Umwälzung des Wissenschafts*, 7th ed., pp. 335 f. [Translated by Emile Burns as *Herr Eugen Dühring's Revolution in Science—Anti-Düring* (London: Lawrence & Wishart, 1943).]

⁹Karl Marx, *Capital*, translated by Eden and Cedar Paul (London: Allen & Unwin, 1928), p. 9.

socially necessary labor time required for the production of each of the commodities *P* and *Q* be 10 hours. Further, in addition to labor the production of both *P* and *Q* requires the raw material *a*, a unit of which is produced by an hour's socially necessary labor; 2 units of *a* and 8 hours' labor are used in the production of *P*, and one unit of *a* and 9 hours' labor in the production of *Q*. In terms of labor *P* and *Q* are equivalent, but in value terms *P* is more valuable than *Q*. The former is false, and only the latter corresponds to the nature and purpose of calculation. True, this surplus, by which according to value calculation *P* is more valuable than *Q*, this material sub-stratum "is given by nature without any addition from man."¹⁰ Still, the fact that it is only present in such quantities that it becomes an object of economizing, must be taken into account in some form or other in value calculation.

The second defect in calculation in terms of labor is the ignoring of the different qualities of labor. To Marx all human labor is economically of the same kind, as it is always "the productive expenditure of human brain, brawn, nerve and hand."¹¹

Skilled labour counts only as intensified, or rather multiplied, simple labour, so that a smaller quantity of skilled labour is equal to a larger quantity of simple labour. Experience shows that skilled labour can always be reduced in this way to the terms of simple labour. No matter that a commodity be the product of the most highly skilled

¹⁰Ibid., p. 12.

¹¹Ibid., p. 13 et seq.

labour, its value can be equated with that of the product of simple labour, so that it represents merely a definite amount of simple labour.

Böhm-Bawerk is not far wrong when he calls this argument “a theoretical juggle of almost stupefying naïveté.”¹² To judge Marx’s view we need not ask if it is possible to discover a single uniform physiological measure of all human labor, whether it be physical or “mental.” For it is certain that there exist among men varying degrees of capacity and dexterity, which cause the products and services of labor to have varying qualities. What must be conclusive in deciding the question whether reckoning in terms of labor is applicable or not, is whether it is or is not possible to bring different kinds of labor under a common denominator without the mediation of the economic subject’s valuation of their products. The proof Marx attempts to give is not successful. Experience indeed shows that goods are consumed under exchange relations without regard of the fact of their being produced by simple or complex labor. But this would only be a proof that given amounts of simple labor are directly made equal to given amounts of complex labor, if it were shown that labor is their source of exchange value. This not only is not demonstrated, but is what Marx is trying to demonstrate by means of these very arguments.

¹²Cf. Eugen von Böhm-Bawerk, *Capital and Interest*, translated by William Smart (London and New York: Macmillan, 1890), p. 384. [See the English translation by George Huncke and Hans F. Sennholz (South Holland, Ill.: Libertarian Press, 1959), p. 299, where the phrase reads “a bit of legerdemain in the theorizing line that is astounding in its naïveté.”]

No more is it a proof of this homogeneity that rates of substitution between simple and complex labor are manifested in the wage rate in an exchange economy—a fact to which Marx does not allude in this context. This equalizing process is a result of market transactions and not its antecedent. Calculation in terms of labor would have to set up an arbitrary proportion for the substitution of complex by simple labor, which excludes its employment for purposes of economic administration.

It was long supposed that the labor theory of value was indispensable to socialism, so that the demand for the nationalization of the means of production should have an ethical basis. Today we know this for the error it is. Although the majority of socialist supporters have thus employed this misconception, and although Marx, however much he fundamentally took another point of view, was not altogether free from it, it is clear that the political call for the introduction of socialized production neither requires nor can obtain the support of the labor theory of value on the one hand, and that on the other those people holding different views on the nature and origin of economic value can be socialist according to their sentiments. Yet the labor theory of value is inherently necessary for the supporters of socialist production in a sense other than that usually intended. In the main socialist production might only appear rationally realizable, if it provided an objectively recognizable unit of value, which would permit of economic calculation in an economy where neither money nor exchange were present. And only labor can conceivably be considered as such.

4

Responsibility and Initiative in Communal Concerns

The problem of responsibility and initiative in socialist enterprises is closely connected with that of economic calculation. It is now universally agreed that the exclusion of free initiative and individual responsibility, on which the successes of private enterprise depend, constitutes the most serious menace to socialist economic organization.¹³

The majority of socialists silently pass this problem by. Others believe they can answer it with an allusion to the directors of companies; in spite of the fact that they are not the owners of the means of production, enterprises under their control have flourished. If society, instead of company shareholders, becomes the owner of the means of production, nothing will have altered. The directors would not work less satisfactorily for society than for shareholders.

¹³Cf. *Vorläufiger Bericht der Sozialisierungskommission über die Frage der Sozialisierung des Kohlenbergbaues*, concluded 15th February, 1919 (Berlin, 1919), p. 13.

We must distinguish between two groups of joint-stock companies and similar concerns. In the first group, consisting for the large part of smaller companies, a few individuals unite in a common enterprise in the legal form of a company. They are often the heirs of the founders of the company, or often previous competitors who have amalgamated. Here the actual control and management of business is in the hands of the shareholders themselves or at least of some of the shareholders, who do business in their own interest; or in that of closely related shareholders such as wives, minors, etc. The directors in their capacity as members of the board of management or of the board of control, and sometimes also in an attenuated legal capacity, themselves exercise the decisive influence in the conduct of affairs. Nor is this affected by the circumstance that sometimes part of the share-capital is held by a financial consortium or bank. Here in fact the company is only differentiated from the public commercial company by its legal form.

The situation is quite different in the case of large-scale companies, where only a fraction of the shareholders, i.e., the big shareholders, participate in the actual control of the enterprise. And these usually have the same interest in the firm's prosperity as any property holder. Still, it may well be that they have interests other than those of the vast majority of small shareholders, who are excluded from the management even if they own the larger part of the share-capital. Severe collisions may occur, when the firm's business is so handled on behalf of the directors that the shareholders are injured. But be that as it may, it is clear that the real holders of power in companies run the business in their

own interest, whether it coincides with that of the shareholders or not. In the long run it will generally be to the advantage of the solid company administrator, who is not merely bent on making a transient profit, to represent the shareholders' interests only in every case and to avoid manipulations which might damage them. This holds good in the first instance for banks and financial groups, which should not trifle at the public's expense with the credit they enjoy. Thus it is not merely on the prescriptiveness of ethical motives that the success of companies depends.

The situation is completely transformed when an undertaking is nationalized. The motive force disappears with the exclusion of the material interests of private individuals, and if State and municipal enterprises thrive at all, they owe it to the taking over of "management" from private enterprise, or to the fact that they are ever driven to reforms and innovations by the business men from whom they purchase their instruments of production and raw material.

Since we are in a position to survey decades of State and socialist endeavor, it is now generally recognized that there is no internal pressure to reform and improvement of production in socialist undertakings, that they cannot be adjusted to the changing conditions of demand, and that in a word they are a dead limb in the economic organism. All attempts to breathe life into them have so far been in vain. It was supposed that a reform in the system of remuneration might achieve the desired end. If the managers of these enterprises were interested in the yield, it was thought they would be in a position comparable to that of the manager of large-scale companies. This is a fatal error.

The managers of large-scale companies are bound up with the interests of the businesses they administer in an entirely different way from what could be the case in public concerns. They are either already owners of a not inconsiderable fraction of the share capital, or hope to become so in due course. Further, they are in a position to obtain profits by stock exchange speculation in the company's shares. They have the prospect of bequeathing their positions to, or at least securing part of their influence for, their heirs. The type to which the success of joint-stock companies is to be attributed, is not that of a complacently prosperous managing director resembling the civil servant in his outlook and experience; rather it is precisely the manager, promoter, and man of affairs, who is himself interested as a shareholder, whom it is the aim of all nationalization and municipalization to exclude.

It is not generally legitimate to appeal in a socialist context to such arguments in order to ensure the success of an economic order built on socialist foundations. All socialist systems, including that of Karl Marx, and his orthodox supporters, proceed from the assumption that in a socialist society a conflict between the interests of the particular and general could not possibly arise. Everybody will act in his own interest in giving of his best because he participates in the product of all economic activity. The obvious objection that the individual is very little concerned whether he himself is diligent and enthusiastic, and that it is of greater moment to him that everybody else should be, is either completely ignored or is insufficiently dealt with by them. They believe they can construct a socialist commonwealth on the basis of the Categorical Imperative

alone. How lightly it is their wont to proceed in this way is best shown by Kautsky when he says, "If socialism is a social necessity, then it would be human nature and not socialism which would have to readjust itself, if ever the two clashed."¹⁴ This is nothing but sheer Utopianism.

But even if we for the moment grant that these Utopian expectations can actually be realized, that each individual in a socialist society will exert himself with the same zeal as he does today in a society where he is subjected to the pressure of free competition, there still remains the problem of measuring the result of economic activity in a socialist commonwealth which does not permit of any economic calculation. We cannot act economically if we are not in a position to understand economizing.

A popular slogan affirms that if we think less bureaucratically and more commercially in communal enterprises, they will work just as well as private enterprises. The leading positions must be occupied by merchants, and then income will grow apace. Unfortunately "commercial-mindedness" is not something external, which can be arbitrarily transferred. A merchant's qualities are not the property of a person depending on inborn aptitude, nor are they acquired by studies in a commercial school or by working in a commercial house, or even by having been a business man oneself for some period of time. The entrepreneur's commercial attitude and activity arises from his position in the economic process and is lost with its dis-

¹⁴Cf. Karl Kautsky, Preface to "Atlanticus" [Gustav Jaeckh], *Produktion und Konsum im Sozialstaat* (Stuttgart: J.H.W. Dietz, 1898), p. 14.

appearance. When a successful business man is appointed the manager of a public enterprise, he may still bring with him certain experiences from his previous occupation, and be able to turn them to good account in a routine fashion for some time. Still, with his entry into communal activity he ceases to be a merchant and becomes as much a bureaucrat as any other placeman in the public employ. It is not a knowledge of bookkeeping, of business organization, or of the style of commercial correspondence, or even a dispensation from a commercial high school, which makes the merchant, but his characteristic position in the production process, which allows of the identification of the firm's and his own interests. It is no solution of the problem when Otto Bauer in his most recently published work proposes that the directors of the National Central Bank, on whom leadership in the economic process will be conferred, should be nominated by a Collegium, to which representatives of the teaching staff of the commercial high schools would also belong.¹⁵ Like Plato's philosophers, the directors so appointed may well be the wisest and best of their kind, but they cannot be merchants in their posts as leaders of a socialist society, even if they should have been previously.

It is a general complaint that the administration of public undertakings lacks initiative. It is believed that this might be remedied by changes in organization. This also is a grievous mistake. The management of a socialist concern cannot entirely be placed in the hands of a single individual,

¹⁵Cf. Otto Bauer, *Der Weg zum Sozialismus* (Vienna: Ignaz Brand, 1919), p. 25.

because there must always be the suspicion that he will permit errors inflicting heavy damages on the community. But if the important conclusions are made dependent on the votes of committees, or on the consent of the relevant government offices, then limitations are imposed on the individual's initiative. Committees are rarely inclined to introduce bold innovations. The lack of free initiative in public business rests not on an absence of organization, it is inherent in the nature of the business itself. One cannot transfer free disposal of the factors of production to an employee, however high his rank, and this becomes even less possible, the more strongly he is materially interested in the successful performance of his duties; for in practice the propertyless manager can only be held morally responsible for losses incurred. And so ethical losses are juxtaposed with opportunities for material gain. The property owner on the other hand himself bears responsibility, as he himself must primarily feel the loss arising from unwisely conducted business. It is precisely in this that there is a characteristic difference between liberal and socialist production.

5

The Most Recent Socialist Doctrines and the Problem of Economic Calculation

Since recent events helped socialist parties to obtain power in Russia, Hungary, Germany and Austria, and have thus made the execution of a socialist nationalization program a topical issue,¹⁶ Marxist writers have themselves begun to deal more closely with the problems of the regulation of the socialist commonwealth. But even now they still cautiously avoid the crucial question, leaving it to be tackled by the despised “Utopians.” They themselves prefer to confine their attention to what is to be done in the immediate future; they are forever drawing up programs of the path to Socialism and not of Socialism itself. The only possible conclusion from all these writings is that they are not even conscious of the larger problem of economic calculation in a socialist society.

¹⁶[The reader will remember that Mises is writing in 1920.]

To Otto Bauer the nationalization of the banks appears the final and decisive step in the carrying through of the socialist nationalization program. If all banks are nationalized and amalgamated into a single central bank, then its administrative board becomes "the supreme economic authority, the chief administrative organ of the whole economy. Only by nationalization of the banks does society obtain the power to regulate its labor according to a plan, and to distribute its resources rationally among the various branches of production, so as to adapt them to the nation's needs."¹⁷ Bauer is not discussing the monetary arrangements which will prevail in the socialist commonwealth after the completion of the nationalization of the banks. Like other Marxists he is trying to show how simply and obviously the future socialist order of society will evolve from the conditions prevailing in a developed capitalist economy. "It suffices to transfer to the nation's representatives the power now exercised by bank shareholders through the Administrative Boards they elect,"¹⁸ in order to socialize the banks and thus to lay the last brick on the edifice of socialism. Bauer leaves his readers completely ignorant of the fact that the nature of the banks is entirely changed in the process of nationalization and amalgamation into one central bank. Once the banks merge into a single bank, their essence is wholly transformed; they are then in a position to issue credit without any limitation.¹⁹

¹⁷Cf. Otto Bauer, *Der Weg zum Sozialismus* (Vienna: Ignaz Brand, 1919), p. 26 f.

¹⁸Ibid. p. 25.

¹⁹Cf. Ludwig von Mises, *Theorie des Geldes und der Umlaufsmittel* (Munich and Leipzig: Duncker & Humblot, 1912), pp.

In this fashion the monetary system as we know it today disappears of itself. When in addition the single central bank is nationalized in a society, which is otherwise already completely socialized, market dealings disappear and all exchange transactions are abolished. At the same time the Bank ceases to be a bank, its specific functions are extinguished, for there is no longer any place for it in such a society. It may be that the name “Bank” is retained, that the Supreme Economic Council of the socialist community is called the Board of Directors of the Bank, and that they hold their meetings in a building formerly occupied by a bank. But it is no longer a bank, it fulfils none of those functions which a bank fulfils in an economic system resting on the private ownership of the means of production and the use of a general medium of exchange—money. It no longer distributes any credit, for a socialist society makes credit of necessity impossible. Bauer himself does not tell us what a bank is, but he begins his chapter on the nationalization of the banks with the sentence: “All disposable capital flows into a common pool in the banks.”²⁰ As a Marxist must he not raise the question of what the banks’ activities will be after the abolition of capitalism?

All other writers who have grappled with the problems of the organization of the socialist commonwealth are guilty of similar confusions. They do not realize that the bases of economic calculation are removed by

474 ff. [See the English translation by H.E. Batson, *The Theory of Money and Credit* (Indianapolis: Liberty Classics, 1980), [Compare p. 411 of the 1980 English edition.]

²⁰Cf. Bauer, *Der Weg zum Sozialismus*, p. 24 f.

the exclusion of exchange and the pricing mechanism, and that something must be substituted in its place, if all economy is not to be abolished and a hopeless chaos is not to result. People believe that socialist institutions might evolve without further ado from those of a capitalist economy. This is not at all the case. And it becomes all the more grotesque when we talk of banks, banks management, etc. in a socialist commonwealth.

Reference to the conditions that have developed in Russia and Hungary under Soviet rule proves nothing. What we have there is nothing but a picture of the destruction of an existing order of social production, for which a closed peasant household economy has been substituted. All branches of production depending on social division of labor are in a state of entire dissolution. What is happening under the rule of Lenin and Trotsky is merely destruction and annihilation. Whether, as the liberals²¹ hold, socialism must inevitably draw these consequences in its train, or whether, as the socialists retort, this is only a result of the fact that the Soviet Republic is attacked from without, is a question of no interest to us in this context. All that has to be established is the fact that the Soviet socialist commonwealth has not even begun to discuss the problem of economic calculation, nor has it any cause to do so. For where things are still produced for the market in Soviet Russia in spite of governmental prohibitions, they

²¹[Mises is using the term “liberal” here in its nineteenth-century European sense, meaning “classical liberal” or libertarian. On liberalism see Mises’s *Liberalism: In the Classical Tradition*, translated by Ralph Raico (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1985).]

are valued in terms of money, for there exists to that extent private ownership of the means of production, and goods are sold against money. Even the Government cannot deny the necessity, which it confirms by increasing the amount of money in circulation, of retaining a monetary system for at least the transition period.

That the essence of the problem to be faced has not yet come to light in Soviet Russia, Lenin's statements in his essay on *Die nächsten Aufgaben der Sowjetmacht* best show. In the dictator's deliberations there ever recurs the thought that the immediate and most pressing task of Russian communism is "the organization of bookkeeping and control of those concerns, in which the capitalists have already been expropriated, and of all other economic concerns."²² Even so Lenin is far from realizing that an entirely new problem is here involved which it is impossible to solve with the conceptual instruments of "bourgeois" culture. Like a real politician, he does not bother with issues beyond his nose. He still finds himself surrounded by monetary transactions, and does not notice that with progressive socialization money also necessarily loses its function as the medium of exchange in general use, to the extent that private property and with it exchange disappear. The implication of Lenin's reflections is that he would like to re-introduce into Soviet business "bourgeois" bookkeeping carried on on a monetary basis. Therefore he also

²²Cf. V.I. Lenin, *Die nächsten Aufgaben der Sowjetmacht* (Berlin: Wilmsdorf, 1919), pp. 12f., 22ff. [English translation, *The Soviets at Work*.—This edition.]

desires to restore “bourgeois experts” to a state of grace.²³ For the rest Lenin is as little aware as Bauer of the fact that in a socialist commonwealth the functions of the bank are unthinkable in their existing sense. He wishes to go farther with the “nationalization of the banks” and to proceed” to a transformation of the banks into the nodal point of social bookkeeping under socialism.”²⁴

Lenin’s ideas on the socialist economic system, to which he is striving to lead his people, are generally obscure.

“The socialist state,” he says “can only arise as a net of producing and consuming communes, which conscientiously record their production and consumption, go about their labour economically, uninterruptedly raise their labour productivity and thus attain the possibility of lowering the working day to seven or six hours or even lower.”²⁵ “Every factor, every village appears as a production and consumption commune having the right and obligation to apply the general Soviet legislation in its own way (‘in its own way’ not in the sense of its violation but in the sense of the variety of its forms of realisation), and to solve in its own way the problems of calculating the production and distribution of products.”²⁶

²³Ibid., pp. 15.

²⁴Ibid., pp. 21 and 26. Compare also Bukharin, *Das Programm der Kommunisten* (Zürich: no pub., 1918), pp. 27 ff.

²⁵Lenin, *Die nächsten Aufgaben der Sowjetmacht*, pp. 24 f.

²⁶Ibid., pp. 32.

“The chief communes must and will serve the most backward ones as educators, teachers, and stimulating leaders.” The successes of the chief communes must be broadcast in all their details in order to provide a good example. The communes “showing good business results” should be immediately rewarded “by a curtailment of the working day and with an increase in wages, and by allowing more attention to be paid to cultural and aesthetic goods and values.”²⁷

We can infer that Lenin’s ideal is a state of society in which the means of production are not the property of a few districts, municipalities, or even of the workers in the concern, but of the whole community. His ideal is socialist and not syndicalist. This need not be specially stressed for a Marxist such as Lenin. It is not extraordinary of Lenin the theorist, but of Lenin the statesman, who is the leader of the syndicalist and small-holding peasant Russian revolution. However, at the moment we are engaged with the writer Lenin and may consider his ideals separately, without letting ourselves be disturbed by the picture of sober reality. According to Lenin the theorist, every large agricultural and industrial concern is a member of the great commonwealth of labor. Those who are active in this commonwealth have the right of self-government; they exercise a profound influence on the direction of production and again on the distribution of the goods they are assigned for consumption. Still labor is the property of the whole society, and as its product belongs to society also, it therefore disposes of its distribution. How, we must now

²⁷Ibid., p. 33.

ask, is calculation in the economy carried on in a socialist commonwealth which is so organized? Lenin gives us a most inadequate answer by referring us back to statistics. We must

bring statistics to the masses, make it popular, so that the active population will gradually learn by themselves to understand and realize how much and what kind of work must be done, how much and what kind of recreation should be taken, so that the comparison of the economy's industrial results in the case of individual communes becomes the object of general interest and education.²⁸

From these scanty allusions it is impossible to infer what Lenin understands by statistics and whether he is thinking of monetary or *in natura* computation. In any case, we must refer back to what we have said about the impossibility of learning the money prices of production-goods in a socialist commonwealth and about the difficulties standing in the way of *in natura* valuation.²⁹ Statistics would only be applicable to economic calculation if it could go beyond the *in natura* calculation, whose ill-suitedness for this purpose we have demonstrated. It is naturally impossible where no exchange relations are formed between goods in the process of trade.

²⁸Ibid.

²⁹Neurath, too, imputes great importance to statistics for the setting up of the socialist economic plan. Otto Neurath (*Durch die Kriegswirtschaft zur Naturalwirtschaft* [Munich: G.D.W. Callwey, 1919], pp. 212 et seq.).

Conclusion

It must follow from what we have been able to establish in our previous arguments that the protagonists of a socialist system of production claim preference for it on the ground of greater rationality as against an economy so constituted as to depend on private ownership of the means of production. We have no need to consider this opinion within the framework of the present essay, in so far as it falls back on the assertion that rational economic activity necessarily cannot be perfect, because certain forces are operative which hinder its pursuance. In this connection we may only pay attention to the economic and technical reason for this opinion. There hovers before the holders of this tenet a muddled conception of technical rationality, which stands in antithesis to economic rationality, on which also they are not very clear. They are wont to overlook the fact that "all technical rationality of production is identical with a low level of specific expenditure in the processes of production."³⁰ They overlook

³⁰Friedrich von Gottl-Ottlilienfeld, *Wirtschaft und technik* (*Grundriss der Sozialökonomik*, Section II; Tübingen: J.C.B. Mohr, 1914), p. 220.

the fact that technical calculation is not enough to realize the “degree of general and teleological expediency”³¹ of an event; that it can only grade individual events according to their significance; but that it can never guide us in those judgments which are demanded by the economic complex as a whole. Only because of the fact that technical considerations can be based on profitability can we overcome the difficulty arising from the complexity of the relations between the mighty system of present-day production on the one hand and demand and the efficiency of enterprises and economic units on the other; and can we gain the complete picture of the situation in its totality, which rational economic activity requires.³²

These theories are dominated by a confused conception of the primacy of objective use value. In fact, so far as economic administration is concerned, objective use value can only acquire significance for the economy through the influence it derives from subjective use value on the formation of the exchange relations of economic goods. A second confused idea is inexplicably involved—the observer’s personal judgment of the utility of goods as opposed to the judgments of the people participating in economic transactions. If anyone finds it “irrational” to spend as much as is expended in society on smoking, drinking, and similar enjoyments, then doubtless he is right from the point of view of his own personal scale of values. But in so judging, he is ignoring the fact that economy is a means, and that, without prejudice to the rational considerations influencing

³¹Ibid., p. 219.

³²Ibid., p. 225.

its pattern, the scale of ultimate ends is a matter for conation and not for cognition.

The knowledge of the fact that rational economic activity is impossible in a socialist commonwealth cannot, of course, be used as an argument either for or against socialism. Whoever is prepared himself to enter upon socialism on ethical grounds on the supposition that the provision of goods of a lower order for human beings under a system of common ownership of the means of production is diminished, or whoever is guided by ascetic ideals in his desire for socialism, will not allow himself to be influenced in his endeavors by what we have said. Still less will those “culture” socialists be deterred who, like Muckle, expect from socialism primarily “the dissolution of the most frightful of all barbarisms—capitalist rationality.”³³ But he who expects a rational economic system from socialism will be forced to re-examine his views

³³Friedrich Muckle, *Das Kulturideal des Sozialismus* (Munich and Leipzig: Duncker & Humblot, 1919), p. 213. On the other hand, Muckle demands the “highest degree of rationalisation of economic life in order to curtail hours of labor, and to permit man to withdraw to an island where he can listen to the melody of his being.”

Postscript

Why a Socialist Economy is “Impossible”

Mises’s Thesis

In “Economic Calculation in a Socialist Commonwealth,” Ludwig von Mises demonstrates, once and for ever, that, under socialist central planning, there are no means of economic calculation and that, therefore, socialist economy itself is “impossible” (“unmöglich”)—not just inefficient or less innovative or conducted without benefit of decentralized knowledge, but really and truly and literally *impossible*.

At the same time, he establishes that the necessary and sufficient conditions of the existence and evolution of human society is liberty, property, and sound money: the liberty of each individual to produce and exchange according to independently formed value judgments and price appraisements; unrestricted private ownership of all types and orders of producers’ goods as well as of consumers’ goods; and the existence of a universal medium of exchange whose value is not subject to large or unforeseeable variations.

Abolish all, or even one, of these institutions and human society disintegrates amid a congeries of isolated household economies and predatory tribes. But not only does abolition of private ownership of the means of production by a world embracing socialist state render human social existence impossible: Mises's analysis also implies that socialism destroys the praxeological significance of time and nullifies humanity's uniquely teleological contribution to the universe.

Because Mises's critique of socialism has been the subject of significant misinterpretation by his followers as well as his opponents, his argument, as it is presented in this article, should be restated.

The Calculation Argument

(1) Mises's pathbreaking and central insight is that monetary calculation is the indispensable mental tool for choosing the optimum among the vast array of intricately-related production plans that are available for employing the factors of production within the framework of the social division of labor. Without recourse to calculating and comparing the benefits and costs of production using the structure of monetary prices determined at each moment on the market, the human mind is only capable of surveying, evaluating, and directing production processes whose scope is drastically restricted to the compass of the primitive household economy.

The practically unlimited number of alternative plans for allocating the factors of production and the overwhelming complexities of their interrelationships stem from two

related facts about our world. First, our world is endowed with a wide variety of relatively “nonspecific” resources, which to a greater or lesser degree are substitutable for one another over a broad range of production processes. Second, since human action itself implies the ineradicable scarcity of time as well as of resources, there always exists an almost inexhaustible opportunity to accumulate capital and lengthen the economy’s structure of production, thus multiplying beyond number the technical possibilities for combining the factors of production.

Given, therefore, the infinitude of the relationships of complementarity and substitutability simultaneously subsisting among the various types of productive resources, a single human mind—even if it were miraculously endowed with complete and accurate knowledge of the quantities and qualities of the available factors of production, of the latest techniques for combining and transforming these factors into consumer goods, and of the set of all individuals’ value rankings of consumer goods—would be utterly incapable of determining the optimal pattern of resource allocation or even if a particular plan was ludicrously and destructively uneconomic. Not only would this perfectly knowledgeable person be unable to devise a rational solution of the problem, he or she would be unable to even achieve a full intellectual “survey” of the problem in all its complexity.

Thus, as Mises (p. 15) says,

the mind of one man alone—be it ever so cunning, is too weak to grasp the importance of any single one among the countless many goods of a higher order. No single man can ever master

all the possibilities of production, innumerable as they are, as to be in a position to make straight-way evident judgments of value without the aid of some system of computation.

(2) What is needed, then, to produce the cardinal numbers necessary for computing the costs and benefits of production processes is what Mises (p. 15) calls the “intellectual division of labor” which emerges when private property owners are at liberty to exchange goods and services against money according to their individual value judgments and price appraisements. Thus in a market society every individual mind is accorded a dual role in determining the quantities of monetary calculation. In their consumer roles, all people make monetary bids for the existing stocks of final goods according to their subjective valuations, leading to the emergence of objective monetary exchange ratios which relate the values of all consumer goods to one another.

In light of the system of consumer goods’ prices thus determined, and of the existing knowledge of the technical conditions of production, entrepreneurs seeking to maximize monetary profit bid against one another to acquire the services of the productive factors currently available and owned by these same consumers (including those in entrepreneurial roles). In this competitive process, each and every type of productive service is objectively appraised in monetary terms according to its ultimate contribution to the production of consumer goods. There thus comes into being the market’s monetary price structure, a genuinely “social” phenomenon in which every unit of exchangeable goods and services is assigned a socially significant cardinal

number and which has its roots in the minds of every single member of society yet must forever transcend the contribution of the individual human mind.

(3) Since the social price structure is continually being destroyed and recreated at every moment of time by the competitive appraisal process operating in the face of ceaseless change of the economic data, there is always available to entrepreneurs the means of estimating the costs and revenues and calculating the profitability of any thinkable process of production.

Once private property in the nonhuman means of production is abolished, however, as it is under socialism, the appraisal process must grind to a halt, leaving only the increasingly irrelevant memory of the market's final price structure. In the absence of competitive bidding for productive resources by entrepreneurs, there is no possibility of assigning economic meaning to the amalgam of potential physical productivities embodied in each of the myriad of natural resources and capital goods now in the hands of the socialist central planners.

Even if planners observed the money prices which continued to be generated on an unhampered market for consumer goods, or substituted their own unitary scale of values for those of their subject consumers, there would still be no possibility for the central planners to ever know or guess the "opportunity cost" of any social production process. Where actors, in principle, are not in a position to compare the estimated costs and benefits of their decisions, economizing activities, by definition, are ruled out.

A society without monetary calculation, that is, a socialist society, is therefore quite literally a society without

an economy. Thus, contrary to what has become the conventional interpretation by friend and foe alike, Mises (pp. 18 and 23) was not indulging in rhetorical hyperbole but drily stating a demonstrable conclusion of economic science when he declared in this article:

Without economic calculation there can be no economy. Hence in a socialist state wherein the pursuit of economic calculation is impossible, there can be—in our sense of the term—no economy whatsoever. . . . Socialism is the abolition of rational economy.

(4) Socialism will have particularly devastating effects on the economy's capital structure. Without a unitary expression for time preferences in monetary terms, central planners will never know whether the investment of current resources in the higher stages of production, which yield physically heterogeneous and noncommensurable outputs, will generate an overall production structure whose parts fit together or whose intended length is adjusted to the amount of capital available. Thus higher-order technical processes will be undertaken whose outputs cannot be used in further production processes because the needed complementary producer goods are not available.

In the Soviet Union, for example, in the midst of a dire undersupply of food products, new and unused tractors stand rusting in fields of unharvested grain, because there does not exist sufficient fuel to power them, labor to operate them, or structures to house them. One of the most important consequences of the fact that centrally planned economies exist within a world market economy is that the planners can observe and crudely copy capitalist economies

in deciding which technical processes can coexist in a reasonably coherent capital structure. Had the entire world, rather than isolated nations, existed under central planning for the last half century, the global capital structure would long since have crumbled irretrievably to dust and humanity been catapulted back to autarkic primitivism.

(5) Thus, from the first, Mises emphasized the point, which was conveniently ignored by hostile and disingenuous critics: that the existence of the Soviet Union and other centrally-controlled economies is no refutation of his thesis regarding the impossibility of socialist economy. Their gross inefficiency notwithstanding, these economies in fact do eke out a precarious existence as parasites on the social appraisal process and integrated capital structure produced by the surrounding world market. As Mises (pp. 17–18) points out, neither these economies nor nationalized enterprises within capitalist economies are genuinely socialistic, because both entities

are so much dependent upon the environing economic system with its free commerce that they cannot be said to partake . . . of the really essential nature of a socialist economy. . . . In state and municipal undertakings technical improvements are introduced because their effect in similar private enterprises, domestic and foreign, can be noticed, and because those private industries which produce the materials for these improvements give the impulse for their introduction. In these concerns the advantages of reorganization can be established, because they operate within the sphere of a society based upon the private ownership of the means of production and upon the

system of monetary exchange, being thus capable of computation and account.

(6) But Mises does not stop with the demonstration that socialism must eradicate economizing activity within the social nexus; he also traces out its implications for the development of the human mind. With the dissolution of social production that inevitably ensures upon the imposition of a world-embracing socialist state, humanity is reduced in short order to dependence upon economic activities carried on in relative isolation. The primitive production processes suitable to autarkic economies do not require economic calculation using cardinal numbers nor do such simple processes offer much scope for purely technical calculation. No longer dependent upon arithmetic operations to sustain itself, the human mind begins to lose its characteristic ability to calculate.

Mises's analysis of the effects of socialism also has another momentous implication. With the impossibility of building up and maintaining a capital structure in the absence of monetary calculation, human economy under socialism comes to consist of super-short and repetitive household processes utilizing minimal capital and with little scope for adjustment to new wants. The result is that time itself—in the praxeological sense of a distinction between present and future—ceases to play a role in human affairs. Men and women, in their capitalless, hand-to-mouth existence, begin to passively experience time as the brute beasts do—not actively as a tool of planning and action but passively as mere duration. Humanity as a teleological force in the universe is therefore necessarily a creation of the inextricably related phenomena of calculation and

capital. In a meaningful sense, then, socialism not only exterminates economy and society but the human intellect and spirit as well.

Mises vs. the Hayekians

(1) It is of utmost importance to recognize that, in his original article as well as all later writings on the subject, Mises unswervingly identified the unique and insoluble problem of socialism as the impossibility of calculation—not, as in the case of F.A. Hayek, as an absence of an efficient mechanism for conveying knowledge to the planners. This difference between Mises and Hayek is reflected in their respective conceptions of the social function of competition as well as in their responses to the claims of the later market and mathematical socialists. Actually, Mises anticipated and refuted both groups in his original article. Nonetheless, Mises's position on these issues is today generally ignored or conflated with Hayek's.

(2) For Mises, the starting point for entrepreneurial planning of production in a market economy is the experience of the present (actually immediately past) price structure of the market as well as of the underlying economic data. Knowledge of past market prices by the entrepreneur does not substitute for qualitative information about the economy, as Hayek seems to argue, but is necessarily complementary to it. The reason, for Mises, is that it is price structures as they emerge at future moments of time that are relevant to unavoidably time-consuming and therefore future-oriented production plans. But entrepreneurs can never know future prices directly; they are only able to

appraise them in light of their “experience” of past prices and of their “understanding” of what transformations will take place in the present configuration of the qualitative economic data. Whether or not one prefers to characterize entrepreneurial forecasting and appraisalment as a procedure for “discovery” of knowledge, as Hayek does, what is important is that for Mises it is the indispensable starting point of the competitive process and not its social culminating.

In other words, the forecasting and appraisalment of future price structures in which discovery of new knowledge may be said to play a role is a *precompetitive* and *nonsocial* operation, that is, it precedes and conditions competitive entrepreneurial bidding for existing factors of production and is carried on wholly within the compass of individual minds. The *social* function of competition, on the other hand, is the objective price appraisalment of the higher-order goods, the *sine qua non* of entrepreneurial calculation of the profitability of alternative production plans. Competition therefore acquires the characteristic of a quintessentially social process, not because its operation presupposes knowledge discovery, which is inescapably an individual function, but because, in the absence of competitively determined money prices for the factors of production, possession of literally all the knowledge in the world would not enable an individual to allocate productive resources economically within the social division of labor.

(3) Mises thus assumes in all his writings on the subject that the planners have full knowledge of consumer valuations of final goods as well as of the various means

available for producing these goods under known technological conditions. For example, Mises (p. 21) writes,

The administration may know exactly what goods are most urgently needed. . . . It may also be able to calculate the value of any means of production by calculating the consequence of its withdrawal in relation to the satisfaction of needs.

Despite this knowledge, the socialist administrators would be unable to arrive at a useful social appraisal of the means of production in cardinal terms. This can only occur where there exists private ownership and exchange of productive resources, which generate catallactic competition among independent producers resulting in the imputation of meaningful money prices to the resources.

(4) Anticipating the future arguments of market socialists, Mises reasons that any attempt to implement monetary calculation by forcing or inducing managers of socialist enterprises to act as profit-maximizing (or even more absurdly, price-and-marginal-cost-equalizing) entrepreneurs founders on the fact that these managers do not have an ownership interest in the capital and output of their enterprises. Consequently, the bids they make against one another in seeking to acquire investment funds and purchase productive resources must result in interest rates and prices that are wholly and inescapably arbitrary and useless as tools of economic calculation.

The meaninglessness of these so-called “parametric prices” of market socialism, and their failure to replicate the price structure of the market, derives from the circumstance that they are wholly conditioned by the system of

rewards and penalties and other arrangements instituted by the monopoly owners of the factors of production (the planners) to guide the behavior of their managers. But this system of managerial incentives is itself a construct of the individual human mind, which would first have to solve for itself the problem of valuing the factors of production before it could even hope to devise the proper (but now superfluous) incentive structure.

(5) Hayek and his followers are skeptical regarding how quickly and effectively dispersed knowledge of the changing economic circumstances can be incorporated into the socialist price system. But for Mises's analysis, this is quite beside the point. Regardless of how well-informed the socialist managers are, their bids in the "market" for factors of production, to which the central planners are supposed to adjust the price parameters of the system, emerge from an arbitrary set of directives from the planners themselves and not from competition among private property owners. The prices could be no more useless for the task of economic calculation, if the planners eschewed the elaborate and wasteful charade of orchestrating a pseudo-market and simply picked them out of a hat.

(6) From the Misesian point of view, moreover, the shortcomings of the prices of market socialism do not stem from the fact that such prices are supposed to be treated as "parametric" by the managers, as has been curiously argued recently by some of Mises's followers. The problem is precisely that such prices are *not* genuinely parametric from the point of view of all members of the social body. The prices which emerge on the free market are meaningful for economic calculation because and to the extent

that they are determined by a social appraisal process, which, though it is the inevitable outcome of the mental operations of all consumers and producers, yet enters as an unalterable external factor in the buying and selling plans of every individual actor.

(7) In the 1930s, Hayek and the British Misesian Lionel (later Lord) Robbins made a fateful and wholly unwarranted concession to those who contended that the methods of mathematical economics could be successfully bent to yield a solution for the socialist calculation problem. In response to the argument that prices of the factors of production would emerge from the solution of a set of simultaneous equations which incorporated the given data of the economic system, Hayek and Robbins argued that in “theory” this was true but in “practice,” highly problematic.

The reason for its impracticality, according to Hayek and Robbins, is that, in the real-world economy, consumer wants, available resources, and technology are subject to continual and unforeseeable change. Therefore, by the time the planners had assembled the vast amount of information needed to formulate the massive equation system and succeeded in solving it (manually or mechanically, since there were no high-speed computers in the 1930s), the system of prices which emerged would be completely inapplicable to the current economy, whose underlying data had changed rapidly and unpredictably in the meantime.

Unfortunately, the Hayek-Robbins response was construed by most economists to mean that the theoretical debate over socialist calculation had come to an end with

the concession from the Misesian side that socialism could calculate after all, though perhaps a day late in practice. Moreover, some modern Austrian economists, in a belated effort to reclaim the theoretical high ground, reconstructed the case against socialism along lines suggested by Hayek's later articles on knowledge and competition, which, for all their subtle and compelling argumentation, are disturbingly quasi-Walrasian, seemingly disregarding the lapse of time between present and future prices. The result has been an unacknowledged but momentous retreat from the original and unrefuted Misesian critique emphasizing the absolute impossibility of economic calculation without market prices to a categorically different Hayekian position criticizing the relative inefficiency of nonmarket mechanisms for discovery, communication, and use of knowledge in the allocation of productive resources.

(8) In sharp contrast to the Hayek-Robbins rejoinder and the reconstructed Austrian position, Mises's neglected refutation of the mathematical socialists, which is outlined in his original article (pp. 22–23) and elaborated upon in *Human Action*, does not deviate in the slightest from the fundamental and crucial calculation perspective. Thus Mises assumes that the economic data underlying an existing market economy are suddenly and forever frozen and revealed to newly appointed central planners.

With brilliant insight, Mises demonstrates that, even with Hayekian knowledge problems thus banished from consideration, the planners would still be unable to calculate the optimal or any pattern of deployment for the factors of production. The reason is that the existing capital structure and acquired skills and locations of the labor

force are initially maladjusted to the newly prevailing equilibrium configuration of the data. The planners therefore would be forced to decide how to allocate the flow of productive services among the myriads of potential technical production processes and labor retraining and relocation projects so as to secure the optimal path of adjustment to equilibrium for the existing stocks of capital goods, labor skills, and housing. The bewildering complexity of this allocation decision rests on the fact that the planners will be confronted with altered conditions *at every moment of time* during this disequilibrium transition process, since the quantities and qualities of the available productive services themselves are in constant flux due to the circumstance that they originate in the very stocks of physical assets and labor skills that are being progressively transformed.

(9) Complicating this problem beyond conception is the added fact that the leveling of incomes under the new socialist regime and the inevitable fluctuation of current incomes attending the transformation of the production structure would effect a continual revolution in the structure of consumer demands during the transition period. Mises (p. 23) is surely not overstating his case when he concludes that

the transition to socialism must . . . change all economic data in such a way that a connecting link with the final state of affairs in the previously existent competitive economy becomes impossible. But then we have the spectacle of a socialist economic order floundering in the ocean of possible and conceivable economic combinations without the compass of economic calculation.

Even if mathematics, therefore, yields a consistent set of prices for the given data of equilibrium, this solution is inapplicable to the calculation problems of the dynamic approach to equilibrium. In this situation, use of such prices to allocate resources does not allow the economy to achieve equilibrium, at any rate, before the capital structure and the entire system of social production is demolished.

Thus Mises's original thesis stands on its own against all counterarguments and without any need for qualification or emendation: without private ownership of the means of production, and catallactic competition for them, there cannot exist economic calculation and rational allocation of resources under conditions of the social division of labor. In short, socialist economy and society are impossible.

Beyond Socialism

(1) But though Mises's thesis may remain valid, is it still relevant in a world in which socialist planned economies have collapsed like a house of cards? The answer is a resounding "yes," for Mises's argument (p. 17) implies that "Every step that takes us away from private ownership of the means of production and from the use of money also takes us away from rational economics."

The never-ending growth of the bloated, rapacious, unjust, and unlovely American and other Western-style welfare states involves an ongoing series of such steps. Looking at it from another angle, the blessedly defunct planned economies of Eastern Europe, as noted above, were far from being genuinely socialist economies in the

Misesian sense, because of their ability to trade in and observe the capital complementarities and prices of the world market. They were, and the Soviet Union, China, and others still are, gigantic monopoloid entities that suppress internal markets for capital goods yet maintain subjective and objective relationships with the world market order which enables them to crudely calculate their actions.

As the parasitic welfare state expands its power of monetary inflation and of regulating and intervening into its host “mixed” economy, we can expect productive activities to become more chaotic and guided less and less by socially-determined market prices. In fact, long before a state of complete socialization is achieved, economy and society will begin to disintegrate amid failure of markets to clear, increasing barter, less efficient sizes and forms of business organizations, misallocation, and technical inefficiency of productive resources and disastrous declines of gross capital investment, labor productivity, and living standards. The dangers currently threatening to plunge sectors of the U.S. economy into calculational chaos can be illustrated with a few examples.

(2) Let us consider inflation. One of the most important factors operating to restrain governments of the United States and other mixed economies from reinstituting the inflationary monetary policies which brought us the double-digit rates of price increase of the 1970s is the coexistence of closely integrated global capital markets and independent national fiat currencies issued by central banks jealous of their prerogatives. Any nation that attempts a highly inflationary monetary policy courts the prospect of a rapidly depreciating exchange rate for its

currency, a “flight” of investors from its domestic capital market, and a stratospheric climb in interest rates. In the current jargon, monetary authorities, even of large nations such as the United States, have “lost control of domestic interest rates.”

Now, there is a much ballyhooed movement afoot to effect greater international “coordination” of monetary and fiscal policies or even to introduce a supranational central bank empowered to issue its own fiat currency. At bottom, such proposals seek to loosen the restraints on monetary inflation at the domestic level and allow politicians and bureaucrats and their allowed special interests to surreptitiously extract an expanding flow of lucre or “welfare” from the productive sectors of their economies.

More importantly from our point of view, these international monetary arrangements greatly increase the threat of hyperinflation and the consequent disintegration of the world market economy. Moreover, even if it were reined in before hiving off into hyper-inflationary currency collapse, a bout of galloping inflation in an economy with a highly developed and complex capital structure would drastically falsify monetary calculation and cause capital consumption and a drastic plunge in living standards.

(3) Another area in which we face the prospect of calculational chaos is health care. By wildly subsidizing and stimulating the demand for health care services of selected special interest groups beginning in the mid-1960s, the United States government precipitated a never ending and catastrophic upward-spiral of health care costs.

In addition, the irrational and labyrinthine structure of regulations and prohibitions imposed by government

on the industry has massively distorted resource allocation, restricted supply, and further driven up the costs of medical care. The tragic but predictable result of such intervention is that many of the unsubsidized members of society have been effectively priced out of the market for health care. The simple and humane solution to this tragedy is to quickly terminate these antisocial subsidies and dismantle the destructive regulatory structure, permitting the competitive price appraisal and resource allocation process to operate unimpeded.

But, of course, the internal dynamic of the welfare state is never to retrench and risk disaffection of its pampered and powerful constituencies, for example, the American Medical Association, the American Association for Retired Persons, the entrenched bureaucracies of nonprofit hospitals, and so on. And so we face the prospect of “national health care insurance” which is a euphemism for the thoroughgoing socialization of the health care sector, with its resultant shortages, further suppression of competitive incentives, and deterioration of quality. But this is simply another example of the mad logic of the welfare state: since the government produces nothing that is valuable in terms of social appraisal, it can only supply welfare to some by siphoning off the resources and destroying the economic arrangements that support the welfare of others. In attempting to repair the politically unpopular destruction of its earlier policies, it is driven to further isolated acts of destruction until it arrives, with cruel and ultimate irony, at the policy for the systematic destruction of society and human welfare, that is, socialism.

(4) Finally, we have environmental policies, which are becoming progressively broader in scope and more draconian in enforcement. To the extent that such policies go beyond the protection of individual rights and property—and they are now far, far beyond this point—they become antisocial and destructive of capital and living standards. In fact, in many if not in most cases, it is the obliteration of economic productivity *per se* which is intended and which constitutes the in-kind welfare subsidy to the well-heeled and well-organized minority of upper-middle class environmentalists.

This is true, for example, of environmental regulations that prohibit development activities for the vast majority of Alaskan land and along much of the California coastline as well as of recent calls for suppressing development of Amazon rain forest and coercively maintaining the entire continent of Antarctica forever wild. Needless to say, thoroughgoing and centralized land use regulations, which some fanatical environmentalists are calling for, is tantamount to the abolition of private property in national resources and business structures. The connection between environmentalism and socialism is even stronger when we realize that what socialism brings about unintentionally—the abolition of humanity as a teleological force shaping nature to its purposes—is precisely the aim of the radical environmentalist program.

Conclusion

The significance of Mises's 1920 article extends far beyond its devastating demonstration of the impossibility of

socialist economy and society. It provides the rationale for the price system, purely free markets, the security of private property against all encroachments, and sound money. Its thesis will continue to be relevant as long as economists and policy-makers want to understand why even minor government economic interventions consistently fail to achieve socially beneficial results. “Economic Calculation in the Socialist Commonwealth” surely ranks among the most important economic articles written this century.

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CHAPTER I

Money in a Free Society

1.

THE VALUE OF EXCHANGE

How did money begin? Clearly, Robinson Crusoe had no need for money. He could not have eaten gold coins. Neither would Crusoe and Friday, perhaps exchanging fish for lumber, need to bother about money. But when society expands beyond a few families, the stage is already set for the emergence of money.

To explain the role of money, we must go even further back, and ask: why do men exchange at all? Exchange is the prime basis of our economic life. Without exchanges, there would be no real economy and, practically, no society. Clearly, a voluntary exchange occurs because both parties expect to benefit. An exchange is an agreement between *A* and *B* to transfer the goods or services of one man for the goods and services of the other. Obviously, both benefit because each values what he receives in exchange more than what he gives up. When Crusoe, say, exchanges some fish for lumber, he values the lumber he “buys” more than the fish he “sells,” while Friday, on the contrary, values

the fish more than the lumber. From Aristotle to Marx, men have mistakenly believed that an exchange records some sort of equality of value—that if one barrel of fish is exchanged for ten logs, there is some sort of underlying *equality* between them. Actually, the exchange was made only because each party valued the two products in *different* order.

Why should exchange be so universal among mankind? Fundamentally, because of the great variety in nature: the *variety* in man, and the diversity of location of natural resources. Every man has a different set of skills and aptitudes, and every plot of ground has its own unique features, its own distinctive resources. From this external natural fact of variety come exchanges; wheat in Kansas for iron in Minnesota; one man's medical services for another's playing of the violin. Specialization permits each man to develop his best skill, and allows each region to develop its own particular resources. If no one could exchange, if every man were forced to be completely self-sufficient, it is obvious that most of us would starve to death, and the rest would barely remain alive. Exchange is the lifeblood, not only of our economy, but of civilization itself.

2.

BARTER

Yet, *direct exchange* of useful goods and services would barely suffice to keep an economy going above the primitive level. Such direct exchange—or *barter*—is hardly better than pure self-sufficiency. Why is this? For one thing, it is clear that very little production could be carried on. If Jones hires some laborers to build a

house, with what will he pay them? With parts of the house, or with building materials they could not use? The two basic problems are “indivisibility” and “lack of coincidence of wants.” Thus, if Smith has a plow, which he would like to exchange for several different things—say, eggs, bread, and a suit of clothes—how can he do so? How can he break up the plow and give part of it to a farmer and another part to a tailor? Even where the goods are divisible, it is generally impossible for two exchangers to find each other at the same time. If *A* has a supply of eggs for sale, and *B* has a pair of shoes, how can they get together if *A* wants a suit? And think of the plight of an economics teacher who has to find an egg-producer who wants to purchase a few economics lessons in return for his eggs! Clearly, any sort of civilized economy is impossible under direct exchange.

3.

INDIRECT EXCHANGE

But man discovered, in the process of trial and error, the route that permits a greatly-expanding economy: *indirect exchange*. Under indirect exchange, you sell your product not for a good which you need directly, but for another good which you then, in turn, sell for the good you want. At first glance, this seems like a clumsy and round-about operation. But it is actually the marvelous instrument that permits civilization to develop.

Consider the case of *A*, the farmer, who wants to buy the shoes made by *B*. Since *B* doesn't want his eggs, he finds what *B* does want—let's say butter. *A* then exchanges his eggs for *C*'s butter, and sells the butter to *B* for shoes. He first buys the butter not because he

wants it directly, but because it will permit him to get his shoes. Similarly, Smith, a plow-owner, will sell his plow for one commodity which he can more readily divide and sell—say, butter—and will then exchange parts of the butter for eggs, bread, clothes, etc. In both cases, the superiority of butter—the reason there is extra demand for it beyond simple consumption—is its greater *marketability*. If one good is more marketable than another—if everyone is confident that it will be more readily sold—then it will come into greater demand because it will be used as a *medium of exchange*. It will be the medium through which one specialist can exchange his product for the goods of other specialists.

Now just as in nature there is a great variety of skills and resources, so there is a variety in the marketability of goods. Some goods are more widely demanded than others, some are more divisible into smaller units without loss of value, some more durable over long periods of time, some more transportable over large distances. All of these advantages make for greater marketability. It is clear that in every society, the most marketable goods will be gradually selected as the media for exchange. As they are more and more selected as media, the demand for them increases because of this use, and so they become even more *marketable*. The result is a reinforcing spiral: more marketability causes wider use as a medium which causes more marketability, etc. Eventually, one or two commodities are used as general *media*—in almost all exchanges—and these are called money.

Historically, many different goods have been used as media: tobacco in colonial Virginia, sugar in the West Indies, salt in Abyssinia, cattle in ancient Greece, nails in Scotland, copper in ancient Egypt, and grain, beads, tea,

cowrie shells, and fishhooks. Through the centuries, two commodities, *gold* and *silver*, have emerged as money in the free competition of the market, and have displaced the other commodities. Both are uniquely marketable, are in great demand as ornaments, and excel in the other necessary qualities. In recent times, silver, being relatively more abundant than gold, has been found more useful for smaller exchanges, while gold is more useful for larger transactions. At any rate, the important thing is that whatever the reason, the free market has found gold and silver to be the most efficient moneys.

This process: the cumulative development of a medium of exchange on the free market—is the only way money can become established. Money cannot originate in any other way, neither by everyone suddenly deciding to create money out of useless material, nor by government calling bits of paper “money.” For embedded in the demand for money is knowledge of the money prices of the immediate past; in contrast to directly-used consumers’ or producers’ goods, money must have pre-existing prices on which to ground a demand. But the only way this can happen is by beginning with a useful commodity under barter, and then adding demand for a medium for exchange to the previous demand for direct use (e.g., for ornaments, in the case of gold).¹ Thus, government is powerless to create money for the economy; it can only be developed by the processes of the free market.

¹On the origin of money, cf. Carl Menger, *Principles of Economics* (Glencoe, Ill.: Free Press, 1950), pp. 257–71; Ludwig von Mises, *Theory of Money and Credit*, 3rd ed. (New Haven, Conn.: Yale University Press, 1953), pp. 97–123.

A most important truth about money now emerges from our discussion: money is a commodity. Learning this simple lesson is one of the world's most important tasks. So often have people talked about money as something much more or less than this. Money is not an abstract unit of account, divorceable from a concrete good; it is not a useless token only good for exchanging; it is not a "claim on society"; it is not a guarantee of a fixed price level. It is simply a commodity. It differs from other commodities in being demanded mainly as a medium of exchange. But aside from this, it is a commodity—and, like all commodities, it has an existing stock, it faces demands by people to buy and hold it, etc. Like all commodities, its "price"—in terms of other goods—is determined by the interaction of its total supply, or stock, and the total demand by people to buy and hold it. (People "buy" money by selling their goods and services for it, just as they "sell" money when they buy goods and services.)

4.

BENEFITS OF MONEY

The emergence of money was a great boon to the human race. Without money—without a general medium of exchange—there could be no real specialization, no advancement of the economy above a bare, primitive level. With money, the problems of indivisibility and "coincidence of wants" that plagued the barter society all vanish. Now, Jones can hire laborers and pay them in . . . money. Smith can sell his plow in exchange for units of . . . money. The money-commodity is divisible into small units, and it is generally acceptable by all.

And so all goods and services are sold for money, and then money is used to buy other goods and services that people desire. Because of money, an elaborate “structure of production” can be formed, with land, labor services, and capital goods cooperating to advance production at each stage and receiving payment in money.

The establishment of money conveys another great benefit. Since all exchanges are made in money, all the exchange-ratios are expressed in money, and so people can now compare the market worth of each good to that of every other good. If a TV set exchanges for three ounces of gold, and an automobile exchanges for sixty ounces of gold, then everyone can see that one automobile is “worth” twenty TV sets on the market. These exchange-ratios are *prices*, and the money-commodity serves as a common denominator for all prices. Only the establishment of money prices on the market allows the development of a civilized economy, for only they permit businessmen to *calculate* economically. Businessmen can now judge how well they are satisfying consumer demands by seeing how the selling-prices of their products compare with the prices they have to pay productive factors (their “costs”). Since all these prices are expressed in terms of money, the businessmen can determine whether they are making profits or losses. Such calculations guide businessmen, laborers, and landowners in their search for monetary income on the market. Only such calculations can allocate resources to their most productive uses—to those uses that will most satisfy the demands of consumers.

Many textbooks say that money has several functions: a medium of exchange, unit of account, or “measure of values,” a “store of value,” etc. But it should be

clear that all of these functions are simply corollaries of the one great function: the medium of exchange. Because gold is a general medium, it is most marketable, it can be stored to serve as a medium in the future as well as the present, and all prices are expressed in its terms.² Because gold is a commodity medium for all exchanges, it can serve as a unit of account for present, and expected future, prices. It is important to realize that money cannot be an abstract unit of account or claim, except insofar as it serves as a medium of exchange.

5.

THE MONETARY UNIT

Now that we have seen how money emerged, and what it does, we may ask: How is the money-commodity used? Specifically, what is the stock, or supply, of money in society, and how is it exchanged?

In the first place, most tangible physical goods are traded in terms of weight. Weight is the distinctive unit of a tangible commodity, and so trading takes place in terms of units like tons, pounds, ounces, grains, grams, etc.³ Gold is no exception. Gold, like other commodities, will be traded in units of weight.⁴

²Money does not “measure” prices or values; it is the common denominator for their expression. In short, prices are expressed in money; they are not measured by it.

³Even those goods nominally exchanging in terms of *volume* (bale, bushel, etc.) tacitly assume a standard weight per unit volume.

⁴One of the cardinal virtues of gold as money is its *homogeneity*—unlike many other commodities, it has no differences in quality. An ounce of pure gold equals any other ounce of pure gold the world over.

It is obvious that the size of the common unit chosen in trading makes no difference to the economist. One country, on the metric system, may prefer to figure in grams; England or America may prefer to reckon in grains or ounces. All units of weight are convertible into each other; one pound equals sixteen ounces; one ounce equals 437.5 grains or 28.35 grams, etc.

Assuming gold is chosen as the money, the size of the *gold*-unit used in reckoning is immaterial to us. Jones may sell a coat for one gold ounce in America, or for 28.35 grams in France; both prices are identical.

All this might seem like laboring the obvious, except that a great deal of misery in the world would have been avoided if people had fully realized these simple truths. Nearly everyone, for example, thinks of money as abstract units for something or other, each cleaving uniquely to a certain country. Even when countries were on the "gold standard," people thought in similar terms. American money was "dollars," French was "francs," German "marks," etc. All these were admittedly tied to gold, but all were considered sovereign and independent, and hence it was easy for countries to "go off the gold standard." *Yet all of these names were simply names for units of weight of gold or silver.*

The British "pound sterling" originally signified a pound weight of silver. And what of the dollar? The dollar began as the generally applied name of an ounce weight of silver coined by a Bohemian Count named Schlick, in the sixteenth century. The Count of Schlick lived in Joachim's Valley or Jaachimsthal. The Count's coins earned a great reputation for their uniformity and fineness, and they were widely called "Joachim's

thalers,” or, finally, “thaler.” The name “dollar” eventually emerged from “thaler.”

On the free market, then, the various names that units may have are simply *definitions of units of weight*. When we were “on the gold standard” before 1933, people liked to say that the “price of gold” was “fixed at twenty dollars per ounce of gold.” But this was a dangerously misleading way of looking at our money. Actually, “the dollar” was *defined* as the *name for* (approximately) 1/20 of an ounce of gold. It was therefore misleading to talk about “exchange rates” of one country’s currency for another. The “pound sterling” did not really “exchange” for five “dollars.”⁵ The dollar was defined as 1/20 of a gold ounce, and the pound sterling was, at that time, defined as the name for 1/4 of a gold ounce, simply traded for 5/20 of a gold ounce. Clearly, such exchanges, and such a welter of names, were confusing and misleading. How they arose is shown below in the chapter on government meddling with money. In a purely free market, gold would simply be exchanged directly as “grams,” grains, or ounces, and such confusing names as dollars, franc, etc., would be superfluous. Therefore, in this section, we will treat money as exchanging directly in terms of ounces or grams.

Clearly, the free market will choose as the common unit whatever size of the money-commodity is most convenient. If platinum were the money, it would likely be traded in terms of fractions of an ounce; if iron were

⁵Actually, the pound sterling exchanged for \$4.87, but we are using \$5 for greater convenience of calculation.

used, it would be reckoned in pounds or tons. Clearly, the size makes no difference to the economist.

6.

THE SHAPE OF MONEY

If the size or the name of the money-unit makes little economic difference, neither does the shape of the monetary metal. Since the commodity is the money, it follows that the *entire* stock of the metal, so long as it is available to man, constitutes the world's stock of money. It makes no real difference what shape any of the metal is at any time. If iron is the money, then *all* the iron is money, whether it is in the form of bars, chunks, or embodied in specialized machinery.⁶ Gold has been traded as money in the raw form of nuggets, as gold dust in sacks, and even as jewelry. It should not be surprising that gold, or other moneys, can be traded in many forms, since their important feature is their weight.

It is true, however, that some shapes are often more convenient than others. In recent centuries, gold and silver have been broken down into *coins*, for smaller, day-to-day transactions, and into larger bars for bigger transactions. Other gold is transformed into jewelry and other ornaments. Now, any kind of transformation from one shape to another costs time, effort, and other resources. Doing this work will be a business like any other, and prices for this service will be set in the usual

⁶Iron hoes have been used extensively as money, both in Asia and Africa.

manner. Most people agree that it is legitimate for jewelers to make ornaments out of raw gold, but they often deny that the same applies to the manufacture of coins. Yet, on the free market, coinage is essentially a business like any other.

Many people believed, in the days of the gold standard, that coins were somehow more “really” money than plain, uncoined gold “bullion” (bars, ingots, or any other shape). It is true that 33 coins commanded a premium over bullion, but this was not caused by any mysterious virtue in the coins; it stemmed from the fact that it cost more to manufacture coins from bullion than to remelt coins back into bullion. Because of this difference, coins were more valuable on the market.

7.

PRIVATE COINAGE

The idea of private coinage seems so strange today that it is worth examining carefully. We are used to thinking of coinage as a “necessity of sovereignty.” Yet, after all, we are not wedded to a “royal prerogative,” and it is the American concept that sovereignty rests, not in government, but in the people.

How would private coinage work? In the same way, we have said, as any other business. Each minter would produce whatever size or shape of coin is most pleasing to his customers. The price would be set by the free competition of the market.

The standard objection is that it would be too much trouble to weigh or assay bits of gold at every transaction. But what is there to prevent private minters from

stamping the coin and guaranteeing its weight and fineness? Private minters can guarantee a coin at least as well as a government mint. Unbraided bits of metal would not be accepted as coin. People would use the coins of those minters with the best reputation for good quality of product. We have seen that this is precisely how the “dollar” became prominent—as a competitive silver coin.

Opponents of private coinage charge that fraud would run rampant. Yet, these same opponents would trust government to provide the coinage. But if government is to be trusted at all, then surely, with private coinage, government could at least be trusted to prevent or punish fraud. It is usually assumed that the prevention or punishment of fraud, theft, or other crimes is the real justification for government. But if government cannot apprehend the criminal when private coinage is relied upon, what hope is there for a reliable coinage when the integrity of the private marketplace operators is discarded in favor of a government monopoly of coinage. If government cannot be trusted to ferret out the occasional villain in the free market in coin, why can government be trusted when it finds itself in a position of total control over money and may abase coin, counterfeit coin, or otherwise with full legal sanction perform as the sole villain in the marketplace. It is surely folly to say that government must socialize all property in order to prevent anyone from stealing property. Yet the reasoning behind abolition of private coinage is the same.

Moreover, all modern business is built on guarantees of standards. The drug store sells an eight ounce bottle of medicine; the meat packer sells a pound of

beef. The buyer expects these guarantees to be accurate, and they are. And think of the thousands upon thousands of specialized, vital industrial 373 products that must meet very narrow standards and specifications. The buyer of a 1/2 inch bolt must get a 1/2 inch bolt and not a mere 3/8 inch.

Yet, business has not broken down. Few people suggest that the government must nationalize the machine-tool industry as part of its job of defending standards against fraud. The modern market economy contains an infinite number of intricate exchanges, most depending on definite standards of quantity and quality. But fraud is at a minimum, and that minimum, at least in theory, may be persecuted. So it would be if there were private coinage. We can be sure that a minter's customers, and his competitors, would be keenly alert to any possible fraud in the weight or fineness of his coins.⁷

Champions of the government's coinage monopoly have claimed that money is different from all other commodities, because "Gresham's Law" proves that "bad money drives out good" from circulation. Hence, the free market cannot be trusted to serve the public in supplying good money. But this formulation rests on a misinterpretation of Gresham's famous law. The law really says that "money overvalued artificially by government will drive out of circulation artificially undervalued money." Suppose, for example, there are one-ounce gold coins in circulation. After a few years of wear and tear, let us say that some coins weigh only .9 ounces. Obviously, on the free market, the worn coins would circulate at only

⁷Herbert Spencer, *Social Statics* (New York: D. Appleton, 1890), p. 438.

90 percent of the value of the full-bodied coins, and the nominal face value of the former would have to be repudiated.⁸ If anything, it will be the “bad” coins that will be driven from the market. But suppose the government decrees that everyone must treat the worn coins as equal to new, fresh coins, and must accept them equally in payment of debts. What has the government really done? It has imposed *price control* by coercion on the “exchange rate” between the two types of coin. By insisting on the par-ratio when the worn coins should exchange at 10 percent discount, it artificially *overvalues* the worn coins and *undervalues* new coins. Consequently, everyone will circulate the worn coins, and hoard or export the new. “Bad money drives out good money,” then, not on the free market, but as the direct result of governmental intervention in the market.

Despite never-ending harassment by governments, making conditions highly precarious, private coins have flourished many times in history. True to the virtual law that all innovations come from free individuals and not the state, the first coins were minted by private individuals and goldsmiths. In fact, when the government first began to monopolize the coinage, the royal coins bore the guarantees of private bankers, whom the public trusted far more, apparently, than they did the

⁸To meet the problem of wear and tear, private coiners might either set a time limit on their stamped guarantees of weight, or agree to recoin anew, either at the original or at the lower weight. We may note that in the free economy there will not be the compulsory standardization of coins that prevails when government monopolies direct the coinage.

government. Privately minted gold coins circulated in California as late as 1848.⁹

8.

THE “PROPER” SUPPLY OF MONEY

Now we may ask: What is the supply of money in society and how is that supply used? In particular, we may raise the perennial question, how much money “do we need”? Must the money supply be regulated by some sort of “criterion,” or can it be left alone to the free market?

First, *the total stock, or supply, of money in society at any one time, is the total weight of the existing money-stuff*. Let us assume, for the time being, that only *one* commodity is established on the free market as money. Let us further assume that *gold* is that commodity (although we could have taken silver, or even iron; it is up to the *market*, and not to us, to decide the best commodity to use as money). Since money is gold, the total supply of money is the total weight of gold existing in society. The *shape* of gold does not matter—except if the cost of changing shapes in certain ways is greater than in others (e.g., minting coins costing more than

⁹For historical examples of private coinage, see B.W. Barnard, “The Use of Private Tokens for Money in the United States,” *Quarterly Journal of Economics* 31, no. 4 (August 1917): 600–34, esp. 617–26; Charles A. Conant, *The Principles of Money and Banking* (New York: Harper Bros., 1905), I, 127–32; Lysander Spooner, *A Letter to Grover Cleveland* (Boston: B.R. Tucker, 1886), p. 79; and J. Laurence Laughlin, *A New Exposition of Money, Credit and Prices* (Chicago: University of Chicago Press, 1931), I, 47–51. On coinage, also see Mises, *op. cit.*, pp. 65–67; and Edwin Cannan, *Money*, 8th ed. (London: Staples Press, 1935), pp. 33ff.

melting them). In that case, one of the shapes will be chosen by the market as the money of account, and the other shapes will have a premium or discount in accordance with their relative costs on the market.

Changes in the total gold stock will be governed by the same causes as changes in other goods. Increases will stem from greater production from mines; decreases from being used up in wear and tear, in industry, etc. Because the market will choose a durable commodity as money, and because money is not used up at the rate of other commodities—but is employed as a medium of exchange—the proportion of new annual production to its total stock will tend to be quite small. Changes in total gold stock, then, generally take place very slowly.

What “should” the supply of money be? All sorts of criteria have been put forward: that money should move in accordance with population, with the “volume of trade,” with the “amounts of goods produced,” so as to keep the “price level” constant, etc. Few indeed have suggested leaving the decision to the market. But money differs from other commodities in one essential fact. And grasping this difference furnishes a key to understanding monetary matters. When the supply of any other good increases, this increase confers a social benefit; it is a matter for general rejoicing. More consumer goods mean a higher standard of living for the public; more capital goods mean sustained and increased living standards in the future. The discovery of new, fertile land or natural resources also promises to add to living standards, present and future. But what about money? Does an addition to the money supply also benefit the public at large?

Consumer goods are used up by consumers; capital goods and natural resources are used up in the process of producing consumer goods. But money is not used up; its function is to act as a medium of exchanges—to enable goods and services to travel more expeditiously from one person to another. These exchanges are all made in terms of money prices. Thus, if a television set exchanges for three gold ounces, we say that the “price” of the television set is three ounces. At any one time, all goods in the economy will exchange at certain gold—ratios or prices. As we have said, money, or gold, is the common denominator of all prices. But what of money itself? Does it have a “price”? Since a price is simply an exchange-ratio, it clearly does. But, in this case, the “price of money” is an *array* of the infinite number of exchange-ratios for all the various goods on the market.

Thus, suppose that a television set costs three gold ounces, an auto sixty ounces, a loaf of bread $1/100$ of an ounce, and an hour of Mr. Jones’ legal services one ounce. The “price of money” will then be an array of alternative exchanges. One ounce of gold will be “worth” either $1/3$ of a television set, $1/60$ of an auto, 100 loaves of bread, or one hour of Jones’ legal service. And so on down the line. The price of money, then, is the “purchasing power” of the monetary unit—in this case, of the gold ounce. It tells what that ounce can purchase in exchange, just as the money-price of a television set tells how much money a television set can bring in exchange. What determines the price of money? The same forces that determine all prices on the market—that venerable but eternally true law: “supply and demand.” We all know that if the supply of

eggs increases, the price will tend to fall; if the buyers' demand for eggs increases, the price will tend to rise. The same is true for money. An increase in the supply of money will tend to lower its "price"; an increase in the demand for money will raise it. But what is the demand for money? In the case of eggs, we know what "demand" means; it is the amount of money consumers are willing to spend on eggs, plus eggs retained and not sold by suppliers. Similarly, in the case of money, "demand" means the various goods offered in exchange for money, plus the money retained in cash and not spent over a certain time period. In both cases, "supply" may refer to the total stock of the good on the market.

What happens, then, if the supply of gold increases, demand for money remaining the same? The "price of money" falls—i.e., the purchasing power of the money-unit will fall all along the line. An ounce of gold will now be worth less than 100 loaves of bread, 1/3 of a television set, etc. Conversely, if the supply of gold falls, the purchasing power of the gold ounce rises.

What is the effect of a change in the money supply? Following the example of David Hume, one of the first economists, we may ask ourselves what would happen if, overnight, some good fairy slipped into pockets, purses, and bank vaults, and doubled our supply of money. In our example, she magically doubled our supply of gold. Would we be twice as rich? Obviously not. What makes us rich is an abundance of goods, and what limits that abundance is a scarcity of resources: namely land, labor, and capital. Multiplying coin will not whisk these resources into being. We may *feel* twice as rich for the moment, but clearly all we are doing is *diluting* the money supply. As the public rushes out to

spend its new-found wealth, prices will, very roughly, double—or at least rise until the demand is satisfied, and money no longer bids against itself for the existing goods.

Thus, we see that while an increase in the money supply, like an increase in the supply of any good, lowers its price, the change *does not—unlike other goods—confer a social benefit*. The public at large is not made richer. Whereas new consumer or capital goods add to standards of living, new money only raises prices—i.e., dilutes its own purchasing power. The reason for this puzzle is that money is *only useful for its exchange value*. Other goods have various “real” utilities, so then an increase in their supply satisfies more consumer wants. Money has only utility for prospective exchange; its utility lies in its exchange value, or “purchasing power.” Our law—that an increase in money does not confer a social benefit—stems from its unique use as a medium of exchange.

An increase in the money supply, then, only dilutes the effectiveness of each gold ounce; on the other hand, a fall in the supply of money raises the power of each gold ounce to do its work. We come to the startling truth that it *doesn't matter what the supply of money is*. Any supply will do as well as any other supply. The free market will simply adjust by changing the purchasing power, or effectiveness, of the gold-unit. There is no need to tamper with the market in order to alter the money supply that it determines.

At this point, the monetary planner might object: “All right, granting that it is pointless to increase the money supply, isn't gold mining a waste of resources?

Shouldn't the government keep the money supply constant, and prohibit new mining?" This argument might be plausible to those who hold no principled objections to government meddling, though it would not convince the determined advocate of liberty. But the objection overlooks an important point: that gold is not only money, but is also, inevitably, a *commodity*. An increased supply of gold may not confer *any monetary* benefit, but it does confer a *non-monetary* benefit—i.e., it does increase the supply of gold used in consumption (ornaments, dental work, and the like) and in production (industrial work). Gold mining, therefore, is not a social waste at all.

We conclude, therefore, that determining the supply of money, like all other goods, is best left to the free market. Aside from the general moral and economic advantages of freedom over coercion, no dictated quantity of money will do the work better, and the free market will set the production of gold in accordance with its relative ability to satisfy the needs of consumers, as compared with all other productive goods.¹⁰

9.

THE PROBLEM OF "HOARDING"

The critic of monetary freedom is not so easily silenced, however. There is, in particular, the ancient bugbear of "hoarding." The image is conjured up of the selfish old miser who, perhaps irrationally, perhaps

¹⁰Gold mining is, of course, no more profitable than any other business; in the long-run, its rate of return will be equal to the net rate of return in any other industry.

from evil motives, hoards up gold unused in his cellar or treasure trove—thereby stopping the flow of circulation and trade, causing depressions and other problems. Is hoarding really a menace?

In the first place, what has simply happened is an increased demand for money on the part of the miser. As a result, prices of goods fall, and the purchasing power of the gold ounce rises. There has been no loss to society, which simply carries on with a lower active supply of more “powerful” gold ounces.

Even in the worst possible view of the matter, then, nothing has gone wrong, and monetary freedom creates no difficulties. But there is more to the problem than that. For it is by no means irrational for people to desire more or less money in their cash balances.

Let us, at this point, study cash balances further. Why do people keep any cash balances at all? Suppose that all of us were able to foretell the future with absolute certainty. In that case, no one would have to keep cash balances on hand. Everyone would know exactly how much he will spend, and how much income he will receive, at all future dates. He need not keep any money at hand, but will lend out his gold so as to receive his payments in the needed amounts on the very days he makes his expenditures. But, of course, we necessarily live in a world of uncertainty. People do not precisely know what will happen to them, or what their future incomes or costs will be. The more uncertain and fearful they are, the more cash balances they will want to hold; the more secure, the less cash they will wish to keep on hand. Another reason for keeping cash is also a function of the real world of *uncertainty*. If people

expect the price of money to fall in the near future, they will spend their money now while money is more valuable, thus “dishoarding” and reducing their demand for money. Conversely, if they expect the price of money to rise, they will wait to spend money later when it is more valuable, and their demand for cash will increase. People’s demands for cash balances, then, rise and fall for good and sound reasons.

Economists err if they believe something is wrong when money is not in constant, active “circulation.” Money is only useful for exchange value, true, *but it is not only useful at the actual moment of exchange.* This truth has been often overlooked. Money is just as useful when lying “idle” in somebody’s cash balance, even in a miser’s “hoard.”¹¹ For that money is being held now in wait for possible future exchange—it supplies to its owner, right now, the usefulness of permitting exchanges at any time—present or future—the owner might desire.

It should be remembered that all gold must be owned by someone, and therefore that all gold must be held in people’s cash balances. If there are 3,000 tons of gold in the society, all 3,000 tons must be owned and held, at any one time, in the cash balances of individual people. The total sum of cash balances is always identical with the total supply of money in the society. Thus, ironically, if it were not for the uncertainty of the real world, there could be no monetary system at all! In a

¹¹At what point does a man’s cash balance become a faintly disreputable “hoard,” or the prudent man a miser? It is impossible to fix any definite criterion: generally, the charge of “hoarding” means that *A* is keeping more cash than *B* thinks is appropriate for *A*.

certain world, no one would be willing to hold cash, so the demand for money in society would fall infinitely, prices would skyrocket without end, and any monetary system would break down. Instead of the existence of cash balances being an annoying and troublesome factor, interfering with monetary exchange, it is absolutely necessary to any monetary economy.

It is misleading, furthermore, to say that money “circulates.” Like all metaphors taken from the physical sciences, it connotes some sort of mechanical process, independent of human will, which moves at a certain speed of flow, or “velocity.” Actually, money does not “circulate”; it is, from time to time, *transferred* from one person’s cash balance to another’s. The existence of money, once again, depends upon people’s willingness to hold cash balances.

At the beginning of this section, we saw that “hoarding” never brings any loss to society. Now, we will see that movement in the price of money caused by changes in the demand for money yields a positive social benefit—as positive as any conferred by increased supplies of goods and services. We have seen that the total sum of cash balances in society is equal and identical with the total supply of money. Let us assume the supply remains constant, say at 3,000 tons. Now, suppose, for whatever reason—perhaps growing apprehension—people’s demand for cash balances increases. Surely, it is a positive social benefit to satisfy this demand. But how can it be satisfied when the total sum of cash must remain the same? Simply as follows: with people valuing cash balances more highly, the demand for money increases, and prices fall. As a result, the same total sum of cash balances now confers

a higher “real” balance—i.e., it is higher in proportion to the prices of goods—to the work that money has to perform. In short, the effective cash balances of the public have increased. Conversely, a fall in the demand for cash will cause increased spending and higher prices. The public’s desire for lower effective cash balances will be satisfied by the necessity for given total cash to perform more work.

Therefore, while a change in the price of money stemming from changes in supply merely alters the effectiveness of the money-unit and confers no social benefit, a fall or rise caused by a change in the *demand* for cash balances *does* yield a social benefit—for it satisfies a public desire for either a higher or lower proportion of cash balances to the work done by cash. On the other hand, an increased *supply* of money will *frustrate* public demand for a more *effective* sum total of cash (more effective in terms of purchasing power).

People will almost always say, if asked, that they want as much money as they can get! But what they really want is not more units of money—more gold ounces or “dollars”—but more *effective* units—i.e., greater command of goods and services bought by money. We have seen that society cannot satisfy its demand for more money by increasing its supply—for an increased supply will simply *dilute* the effectiveness of each ounce, and the money will be no more really plentiful than before. People’s standard of living (except in the non-monetary uses of gold) cannot increase by mining more gold. If people want more effective gold ounces in their cash balances, they can get them only through a fall in prices and a rise in the effectiveness of each ounce.

10.

STABILIZE THE PRICE LEVEL?

Some theorists charge that a free monetary system would be unwise, because it would not “stabilize the price level”—i.e., the price of the money-unit. Money, they say, is supposed to be a fixed yardstick that never changes. Therefore, its value, or purchasing power, should be stabilized. Since the price of money would admittedly fluctuate on the free market, freedom must be overruled by government management to insure stability.¹² Stability would provide justice, for example, to debtors and creditors, who will be sure of paying back dollars, or gold ounces, of the same purchasing power as they lent out.

Yet, if creditors and debtors want to hedge against future changes in purchasing power, they can do so easily on the free market. When they make their contracts, they can agree that repayment will be made in a sum of money *adjusted* by some agreed-upon index number of changes in the value of money. The stabilizers have long advocated such measures, but strangely enough, the very lenders and borrowers who are supposed to benefit most from stability, have rarely availed themselves of the opportunity. Must the government then *force* certain “benefits” on people who have already freely rejected them? Apparently, businessmen would rather take their chances, in this world of irremediable

¹²How the government would go about this is unimportant at this point. Basically, it would involve governmentally managed changes in the money supply.

uncertainty, on their ability to anticipate the conditions of the market. After all, the price of money is no different from any other free prices on the market. They can change in response to changes in demand of individuals; why not the monetary price?

11.

COEXISTING MONEYS

So far we have obtained the following picture of money in a purely free economy: gold or silver coming to be used as a medium of exchange; gold minted by competitive private firms, circulating by weight; prices fluctuating freely on the market in response to consumer demands and supplies of productive resources. Freedom of prices necessarily implies freedom of movement for the purchasing power of the money-unit; it would be impossible to use force and interfere with movements in the value of money without simultaneously crippling freedom of prices for all goods. The resulting free economy would not be chaotic. On the contrary, the economy would move swiftly and efficiently to supply the wants of consumers. The money market can also be free.

Thus far, we have simplified the problem by assuming only one monetary metal—say, gold. Suppose that two or more moneys continue to circulate on the world market—say, gold and silver. Possibly, gold will be the money in one area and silver in another, or else they both may circulate side by side. Gold, for example, being ounce-for-ounce more valuable on the market than silver, may be used for larger transactions and silver for smaller. Would not two moneys be impossibly

chaotic? Wouldn't the government have to step in and impose a fixed ration between the two ("bimetallism") or in some way demonetize one or the other metal (impose a "single standard")?

It is very possible that the market, given free rein, might eventually establish one single metal as money. But in recent centuries, silver stubbornly remained to challenge gold. It is not necessary, however, for the government to step in and save the market from its own folly in maintaining two moneys. Silver remained in circulation precisely because it was convenient (for small change, for example). Silver and gold could easily circulate side by side, and have done so in the past. The relative supplies of and demands for the two metals will determine the exchange rate between the two, and this rate, *like any other price*, will continually fluctuate in response to these changing forces. At one time, for example, silver and gold ounces might exchange at 16:1, another time at 15:1, etc. Which metal will serve as a unit of account depends on the concrete circumstances of the market. If gold is the money of account, then most transactions will be reckoned in gold ounces, and silver ounces will exchange at a freely fluctuating price in terms of the gold.

It should be clear that the exchange rate and the purchasing powers of the units of the two metals will always tend to be proportional. If prices of goods are fifteen times as much in silver as they are in gold, then the exchange rate will tend to be set at 15:1. If not, it will pay to exchange from one to the other until parity is reached. Thus, if prices are fifteen times as much in terms of silver as gold while silver/gold is 20:1, people will rush to sell their goods for gold, buy silver, and then rebuy the goods with silver, reaping a handsome

gain in the process. This will quickly restore the “purchasing power parity” of the exchange rate; as gold gets cheaper in terms of silver, silver prices of goods go up, and gold prices of goods go down.

The free market, in short, is eminently *orderly* not only when money is free but even when there is more than one money circulating.

What kind of “standard” will a free money provide? The important thing is that the standard not be imposed by government decree. If left to itself, the market may establish gold as a single money (“gold standard”), silver as a single money (“silver standard”), or, perhaps most likely, both as moneys with freely fluctuating exchange rates (“parallel standards”).¹³

12.

MONEY WAREHOUSES

Suppose, then, that the free market has established gold as money (forgetting again about silver for the sake of simplicity). Even in the convenient shape of

¹³For historical examples of parallel standards, see W. Stanley Jevons, *Money and the Mechanism of Exchange* (London: Kegan Paul, 1905), pp. 88–96, and Robert S. Lopez, “Back to Gold, 1252,” *Economic History Review* 9, no. 2 (December 1956): 219–40, esp. 224. Gold coinage was introduced into modern Europe almost simultaneously in Genoa and Florence. Florence instituted bimetallism, while “Genoa, on the contrary, in conformity to the principle of restricting state intervention as much as possible, did not try to enforce a fixed relation between coins of different metals.” Ibid. On the theory of parallel standards, see Mises, op. cit., pp. 179f. For a proposal that the United States go onto a parallel standard, by an official of the U.S. Assay Office, see J.W. Sylvester, *Bullion Certificates as Currency* (New York, 1882).

coins, gold is often cumbersome and awkward to carry and use directly in exchange. For larger transactions, it is awkward and expensive to transport several hundred pounds of gold. But the free market, ever ready to satisfy social needs, comes to the rescue. Gold, in the first place, must be stored somewhere, and just as specialization is most efficient in other lines of business, so it will be most efficient in the warehousing business. Certain firms, then, will be successful on the market in providing warehousing services. Some will be gold warehouses, and will store gold for its myriad owners. As in the case of all warehouses, the owner's right to the stored goods is established by a *warehouse receipt* which he receives in exchange for storing the goods. The receipt entitles the owner to claim his goods at any time he desires. This warehouse will earn profit no differently from any other—i.e., by charging a price for its storage services.

There is every reason to believe that gold warehouses, or money warehouses, will flourish on the free market in the same way that other warehouses will prosper. In fact, warehousing plays an even more important role in the case of money. For all other goods pass into consumption, and so must leave the warehouse after a while to be used up in production or consumption. But money, as we have seen, is mainly not “used” in the physical sense; instead, it is used to exchange for other goods, and to lie in wait for such exchanges in the future. In short, money is not so much “used up” as simply transferred from one person to another.

In such a situation, convenience inevitably leads to *transfer of the warehouse receipt instead of the physical gold itself*. Suppose, for example, that Smith and Jones

both store their gold in the same warehouse. Jones sells Smith an automobile for 100 gold ounces. They could go through the expensive process of Smith's redeeming his receipt, and moving their gold to Jones' office, with Jones turning right around and redepositing the gold again. But they will undoubtedly choose a far more convenient course: Smith simply gives Jones a warehouse receipt for 100 ounces of gold.

In this way, warehouse receipts for money come more and more to function as *money substitutes*. Fewer and fewer transactions move the actual gold; in more and more cases paper titles to the gold are used instead. As the market develops, there will be three limits on the advance of this substitution process. *One* is the extent that people use these money warehouses—called *banks*—instead of cash. Clearly, if Jones, for some reason, didn't like to use a bank, Smith would have to transport the actual gold. The *second* limit is the extent of the clientele of *each bank*. In other words, the more transactions take place between clients of *different* banks, the more gold will have to be transported. The more exchanges are made by clients of the same bank, the less need to transport the gold. If Jones and Smith were clients of different warehouses, Smith's bank (or Smith himself) would have to transport the gold to Jones' bank. *Third*, the clientele must have confidence in the trustworthiness of their banks. If they suddenly find out, for example, that the bank officials have had criminal records, the bank will likely lose its business in short order. In this respect, all warehouses—and all businesses resting on good will—are alike.

As banks grow and confidence in them develops, their clients may find it more convenient in many

cases to waive their right to paper receipts—called *bank notes*—and, *instead, to keep their titles as open book accounts*. In the monetary realm, these have been called *bank deposits*. Instead of transferring paper receipts, the client has a book claim at the bank; he makes exchanges by writing an order to his warehouse to transfer a portion of this account to someone else. Thus, in our example, Smith will order the bank to transfer book title to his 100 gold ounces to Jones. This written order is called a *check*.

It should be clear that, economically, there is no difference whatever between a bank note and a bank deposit. Both are claims to ownership of stored gold; both are transferred similarly as money substitutes, and both have the identical three limits on their extent of use. The client can choose, according to this convenience, whether he wishes to keep his title in note or deposit form.¹⁴

Now, what has happened to their money supply as a result of all these operations? If paper notes or bank deposits are used as “money substitutes,” does this mean that the effective money supply in the economy has increased even though the stock of gold has remained the same? Certainly not. For the money substitutes are simply warehouse receipts for actually deposited gold. If Jones deposits 100 ounces of gold in his warehouse and gets a receipt for it, the receipt can be used on the market as money, but only as a convenient *stand-in* for the gold, not as an increment. The

¹⁴A third form of money-substitute will be *token coins* for very small change. These are, in effect, equivalent to bank notes, but “printed” on base metal rather than on paper.

gold in the vault is then no longer a part of the effective money supply, but is held as a *reserve* for its receipt, to be claimed whenever desired by its owner. An increase or decrease in the use of substitutes, then, exerts no change on the money supply. Only the *form* of the supply is changed, not the total. Thus the money supply of a community may begin as ten million gold ounces. Then, six million may be deposited in banks, in return for gold notes, whereupon the effective supply will now be four million ounces of gold and six million ounces of gold claims in paper notes. The total money supply has remained the same.

Curiously, many people have argued that it would be impossible for banks to make money if they were to operate on this “100 percent reserve” basis (gold always represented by its receipt). Yet, there is no real problem, any more than for any warehouse. Almost all warehouses keep all the goods for their owners (100 percent reserve) as a matter of course—in fact, it would be considered fraud or theft to do otherwise. Their profits are earned from service charges to their customers. The banks can charge for their services in the same way. If it is objected that customers will not pay the high service charges, this means that the banks’ services are not in very great demand, and the use of their services will fall to the levels that consumers find worthwhile.

We come now to perhaps the thorniest problem facing the monetary economist: an evaluation of “fractional reserve banking.” We must ask the question: Would fractional reserve banking be permitted in a free market, or would it be proscribed as fraud? It is well known that banks have rarely stayed on a “100 percent” basis very long. Since money can remain in the warehouse for a

long period of time, the bank is tempted to use some of the money for its own account—tempted also because people do not ordinarily care whether the gold coins they receive back from the warehouse are the identical gold coins they deposited. The bank is tempted, then, to use other people's money to earn a profit for itself.

If the banks lend out the gold directly, the receipts, of course, are now partially invalidated. There are now some receipts with no gold behind them; in short, the bank is effectively insolvent, since it cannot possibly meet its own obligations if called upon to do so. It cannot possibly hand over its customers' property, should they all so desire.

Generally, banks, instead of taking the gold directly, print uncovered or "pseudo" warehouse receipts—i.e., warehouse receipts for gold that is not and cannot be there. These are then loaned at a profit. Clearly, the economic effect is the same. More warehouse receipts are printed than gold exists in the vaults. What the bank has done is to issue gold warehouse receipts which represent nothing but are supposed to represent 100 percent of their face value in gold. The pseudo-receipts pour forth on the trusting market in the same way as the true receipts, and thus add to the effective money supply of the country. In the above example, if the banks now issue two million ounces of false receipts, with no gold behind them, the money supply of the country will rise from ten to twelve million gold ounces—at least until the hocus-pocus has been discovered and corrected. There are now, in addition to four million ounces of gold held by the public, eight million ounces of money substitutes, only six million of which are covered by gold.

Issue of pseudo-receipts, like counterfeiting of coin, is an example of *inflation*, which will be studied further below. *Inflation may be defined as any increase in the economy's supply of money not consisting of an increase in the stock of the money metal.* Fractional reserve banks, therefore, are inherently inflationary institutions.

Defenders of banks reply as follows: the banks are simply functioning like other businesses—they take risks. Admittedly, if all the depositors presented their claims, the banks would be bankrupt, since outstanding receipts exceed gold in the vaults. But, banks simply take the chance—usually justified—that not everyone will ask for his gold. The great difference, however, between the “fractional reserve” bank and all other business is this: other businessmen use their own or borrowed capital in ventures, and if they borrow credit, they promise to pay at a future date, taking care to have enough money at hand on that date to meet their obligation. If Smith borrows 100 gold ounces for a year, he will arrange to have 100 gold ounces available on that future date. But the bank isn't borrowing from its depositors; it doesn't pledge to pay back gold at a certain date in the future. Instead, it pledges to pay the receipt in gold at any time, on demand. In short, the bank note or deposit is not an IOU or debt; it is a warehouse receipt for other people's property. Further, when a businessman borrows or lends money, he does not add to the money supply. The loaned funds are *saved* funds, part of the existing money supply being transferred from saver to borrower. Bank issues, on the other hand, artificially increase the money supply since pseudo-receipts are injected into the market.

A bank, then, is not taking the usual business risk. It does not, like all businessmen, arrange the time pattern of its assets proportionately to the time pattern of liabilities—i.e., see to it that it will have enough money, on due dates, to pay its bills. Instead, most of its liabilities are instantaneous, but its assets are not.

The bank creates new money out of thin air, and does not, like everyone else, have to acquire money by producing and selling its services. In short, the bank is *already* and at all times bankrupt; but its bankruptcy is only *revealed* when customers get suspicious and precipitate “bank runs.” No other business experiences a phenomenon like a “run.” No other business can be plunged into bankruptcy overnight simply because its customers decide to repossess their own property. No other business creates fictitious new money, which will evaporate when truly gauged.

The dire economic effects of fractional bank money will be explored in the next chapter. Here we conclude that, morally, such banking would have no more right to exist in a truly free market than any other form of implicit theft. It is true that the note or deposit does not actually say on its face that the warehouse guarantees to keep a full backing of gold on hand at all times. But the bank does promise to redeem on demand, and so when it issues any fake receipts, it is already committing fraud, since it immediately becomes impossible for the bank to keep its pledge and redeem all of its notes and deposits.¹⁵ Fraud, therefore, is immediately being committed when

¹⁵See Amasa Walker, *The Science of Wealth*, 3rd ed. (Boston: Little, Brown, 1867), pp. 139–41; and pp. 126–232 for an excellent discussion of the problems of a fractional-reserve money.

the act of issuing pseudo-receipts takes place. *Which* particular receipts are fraudulent can only be discovered *after* a run on the bank has occurred (since all the receipts look alike), and the late-coming claimants are left high and dry.¹⁶

If fraud is to be proscribed in a free society, then fractional reserve banking would have to meet the same fate.¹⁷ Suppose, however, that fraud and fractional reserve banking are permitted, with the banks only required to fulfill their obligations to redeem in gold on demand. Any failure to do so would mean instant bankruptcy. Such a system has come to be known as “free banking.” Would there then be a heavy fraudulent issue of money substitutes, with resulting artificial creation of new money? Many people have assumed so, and believed that “wildcat banking” would then simply inflate the money supply astronomically. But, on the contrary, “free banking” would lead to a far “harder” monetary system than we have today.

¹⁶Perhaps a libertarian system would consider “general warrant deposits” (which allow the warehouse to return any homogeneous good to the depositor) as “specific warrant deposits,” which, like bills of lading, pawn tickets, dock warrants, etc., establish ownership to certain specific earmarked objects. For, in the case of a general deposit warrant, the warehouse is tempted to treat the goods as its own property, instead of being the property of its customers. This is precisely what the banks have been doing. See Jevons, *op. cit.*, pp. 207–12.

¹⁷Fraud is implicit theft, since it means that a contract has not been completed after the value has been received. In short, if A sells B a box labeled “corn flakes” and it turns out to be straw upon opening, A’s fraud is really theft of B’s property. Similarly, the issue of warehouse receipts for non-existent goods, identical with genuine receipts, is fraud upon those who possess claims to non-existent property.

The banks would be checked by the same three limits that we noted above, and checked rather rigorously. In the first place, each bank's expansion will be limited by a loss of gold to another bank. For a bank can only expand money within the limits of its *own* clientele. Suppose, for example, that Bank A, with 10,000 ounces of gold deposited, now issues 2,000 ounces of false warehouse receipts to gold, and lends them to various enterprises, or invests them in securities. The borrower, or former holder of securities, will spend the new money on various goods and services. Eventually, the money going the rounds will reach an owner who is a client of *another* bank, B.

At that point, Bank B will call upon Bank A to redeem its receipt in gold, so that the gold can be transferred to Bank B's vaults. Clearly, the wider the extent of each bank's clientele, and the more the clients trade with one another, the more scope there is for each bank to expand its credit and money supply. For if the bank's clientele is narrow, then soon after its issue of created money, it will be called upon to redeem—and, as we have seen, it doesn't have the wherewithal to redeem more than a fraction of its obligations. To avoid the threat of bankruptcy from this quarter, then, the narrower the scope of a bank's clientele, the greater the fraction of gold it must keep in reserve, and the less it can expand. If there is one bank in each country, there will be far more scope for expansion than if there is one bank for every two persons in the community. Other things being equal, then, the more banks there are, and the tinier their size, the "harder"—and better—the monetary supply will be. Similarly, a bank's clientele will also be limited by those who don't use a bank at

all. The more people use actual gold instead of bank money, the less room there is for bank inflation.

Suppose, however, that the banks form a cartel, and agree to pay out each other's receipts, and not call for redemption. And suppose further that bank money is in universal use. Are there any limits left on bank expansion? Yes, there remains the check of client confidence in the banks. As bank credit and the money supply expand further and further, more and more clients will get worried over the lowering of the reserve fraction. And, in a truly free society, those who know the truth about the real insolvency of the banking system will be able to form Anti-Bank Leagues to urge clients to get their money out before it is too late. In short, leagues to urge bank runs, or the threat of their formation, will be able to stop and reverse the monetary expansion.

None of this discussion is meant to impugn the general practice of *credit*, which has an important and vital function on the free market. In a credit transaction, the possessor of money (a good useful in the present) exchanges it for an IOU payable at some future date (the IOU being a "future good") and the interest charge reflects the higher valuation of present goods over future goods on the market. But bank notes or deposits are *not* credit; they are warehouse receipts, instantaneous claims to cash (e.g., gold) in the bank vaults. The debtor makes sure that he pays his debt when payment becomes due; the fractional reserve banker can never pay more than a small fraction of his outstanding liabilities.

We turn, in the next chapter, to a study of the various forms of governmental interference in the monetary

system—most of them designed, not to repress fraudulent issue, but on the contrary, to remove these and other natural checks on inflation.

13.

SUMMARY

What have we learned about money in a free society? We have learned that *all* money has originated, and must originate, in a useful commodity chosen by the free market as a medium of exchange. The unit of money is simply a unit of weight of the monetary commodity—usually a metal, such as gold or silver. Under freedom, the commodities chosen as money, their shape and form, are left to the voluntary decisions of free individuals. Private coinage, therefore, is just as legitimate and worthwhile as any business activity. The “price” of money is its purchasing power in terms of all goods in the economy, and this is determined by its supply, and by every individual’s demand for money. Any attempt by government to fix the price will interfere with the satisfaction of people’s demands for money. If people find it more convenient to use more than one metal as money, the exchange rate between them on the market will be determined by the relative demands and supplies, and will tend to equal the ratios of their respective purchasing power. Once there is enough supply of a metal to permit the market to choose it as money, no increase in supply can improve its monetary function. An increase in money supply will then merely dilute the effectiveness of each ounce of money without helping the economy. An increased stock of gold or silver, however, fulfills more non-monetary wants (ornament, industrial purposes,

etc.) served by the metal, and is therefore socially useful. Inflation (an increase in money substitutes not covered by an increase in the metal stock) is never socially useful, but merely benefits one set of people at the expense of another. Inflation, being a fraudulent invasion of property, could not take place on the free market.

In sum, freedom can run a monetary system as superbly as it runs the rest of the economy. Contrary to many writers, there is nothing special about money that requires extensive governmental dictation. He, too, free men will best and most smoothly supply all their economic wants. For money, as for all other activities of man, "liberty is the mother, not the daughter, of order."

CHAPTER II

Government Meddling with Money

1.

THE REVENUE OF GOVERNMENT

Governments, in contrast to all other organizations, do not obtain their revenue as payment for their services. Consequently, governments face an economic problem different from that of everyone else. Private individuals who want to acquire more goods and services from others must produce and sell more of what others want. Governments need only find some method of expropriating more goods without the owner's consent.

In a barter economy, government officials can only expropriate resources in one way: by seizing goods in kind. In a *monetary* economy they will find it easier to seize monetary assets, and then use the money to acquire goods and services for government, or else pay the money as subsidies to favored groups. Such seizure is called *taxation*.¹

¹Direct seizure of goods is therefore not now as extensive as monetary expropriation. Instances of the former still occurring are "due process"

Taxation, however, is often unpopular, and, in less temperate days, frequently precipitated revolutions. The emergence of money, while a boon to the human race, also opened a more subtle route for governmental expropriation of resources. On the free market, money can be acquired by producing and selling goods and services that people want, or by mining (a business no more profitable, in the long run, than any other). But if government can find ways to engage in *counterfeiting*—the creation of new money out of thin air—it can quickly produce its own money without taking the trouble to sell services or mine gold. It can then appropriate resources slyly and almost unnoticed, without rousing the hostility touched off by taxation. In fact, counterfeiting can create in its very victims the blissful illusion of unparalleled prosperity.

Counterfeiting is evidently but another name for inflation—both creating new “money” that is not standard gold or silver, and both function similarly. And now we see why governments are inherently inflationary: because inflation is a powerful and subtle means for government acquisition of the public’s resources, a painless and all the more dangerous form of taxation.

seizure of land under eminent domain, quartering of troops in an occupied country, and especially compulsory confiscation of labor service (e.g., military conscription, compulsory jury duty, and forcing business to keep tax records and collect withholding taxes).

2.

THE ECONOMIC EFFECTS OF INFLATION

To gauge the economic effects of inflation, let us see what happens when a group of counterfeiters set about their work. Suppose the economy has a supply of 10,000 gold ounces, and counterfeiters, so cunning that they cannot be detected, pump in 2,000 “ounces” more. What will be the consequences? First, there will be a clear gain to the counterfeiters. They take the newly created money and use it to buy goods and services. In the words of the famous *New Yorker* cartoon, showing a group of counterfeiters in sober contemplation of their handiwork: “Retail spending is about to get a needed shot in the arm.” Precisely. Local spending, indeed, does get a shot in the arm. The new money works its way, step by step, throughout the economic system. As the new money spreads, it bids prices up—as we have seen, new money can only dilute the effectiveness of each dollar. But this dilution takes time and is therefore uneven; in the meantime, some people gain and other people lose. In short, the counterfeiters and their local retailers have found their incomes increased before any rise in the prices of the things they buy. But, on the other hand, people in remote areas of the economy, who have not yet received the new money, find their buying prices rising before their incomes. Retailers at the other end of the country, for example, will suffer losses. The first receivers of the new money gain most, and at the expense of the latest receivers.

Inflation, then, confers no general social benefit; instead, it redistributes the wealth in favor of the first-comers and at the expense of the laggards in the race.

And inflation is, in effect, a race—to see who can get the new money earliest. The latecomers—the ones stuck with the loss—are often called the “fixed income groups.” Ministers, teachers, people on salaries, lag notoriously behind other groups in acquiring the new money. Particular sufferers will be those depending on fixed money contracts—contracts made in the days before the inflationary rise in prices. Life insurance beneficiaries and annuitants, retired persons living off pensions, landlords with long term leases, bondholders and other creditors, those holding cash, all will bear the brunt of the inflation. They will be the ones who are “taxed.”²

Inflation has other disastrous effects. It distorts that keystone of our economy: business calculation. Since prices do not all change uniformly and at the same speed, it becomes very difficult for business to separate the lasting from the transitional, and gauge truly the demands of consumers or the cost of their operations. For example, accounting practice enters the “cost” of an asset at the amount the business has paid for it. But if inflation intervenes, the cost of replacing the asset when it wears out will be far greater than that recorded on the books. As a result, business accounting will seriously overstate their profits during inflation—and may even consume capital while presumably increasing their

²It has become fashionable to scoff at the concern displayed by “conservatives” for the “widows and orphans” hurt by inflation. And yet this is precisely one of the chief problems that must be faced. Is it really “progressive” to rob widows and orphans and to use the proceeds to subsidize farmers and armament workers?

investments.³ Similarly, stock holders and real estate holders will acquire capital gains during an inflation that are not really “gains” at all. But they may spend part of these gains without realizing that they are thereby consuming their original capital.

By creating illusory profits and distorting economic calculation, inflation will suspend the free market’s penalizing of inefficient, and rewarding of efficient, firms. Almost all firms will seemingly prosper. The general atmosphere of a “sellers’ market” will lead to a decline in the quality of goods and of service to consumers, since consumers often resist price increases less when they occur in the form of downgrading of quality.⁴ The quality of work will decline in an inflation for a more subtle reason: people become enamored of “get-rich-quick” schemes, seemingly within their grasp in an era of ever-rising prices, and often scorn sober effort. Inflation also penalizes thrift and encourages debt, for any sum of money loaned will be repaid in dollars of lower purchasing power than when originally received. The incentive, then, is to borrow and repay later rather than save and lend. Inflation, therefore, lowers the general standard of living in the very course of creating a tinsel atmosphere of “prosperity.”

³This error will be greatest in those firms with the oldest equipment, and in the most heavily capitalized industries. An undue number of firms, therefore, will pour into these industries during an inflation. For further discussion of this accounting-cost error, see W.T. Baxter, “The Accountant’s Contribution to the Trade Cycle,” *Economica*, n.s., 22, no. 86 (May 1955): 99–112.

⁴In these days of rapt attention to “cost-of-living indexes” (e.g., escalator-wage contracts) there is strong incentive to increase prices in such a way that the change will not be revealed in the index.

Fortunately, inflation cannot go on forever. For eventually people wake up to this form of taxation; they wake up to the continual shrinkage in the purchasing power of their dollar.

At first, when prices rise, people say: "Well, this is abnormal, the product of some emergency. I will postpone my purchases and wait until prices go back down." This is the common attitude during the first phase of an inflation. This notion moderates the price rise itself, and conceals the inflation further, since the demand for money is thereby increased. But, as inflation proceeds, people begin to realize that prices are going up perpetually as a result of perpetual inflation. Now people will say: "I will buy now, though prices are 'high,' because if I wait, prices will go up still further." As a result, the demand for money now falls and prices go up *more*, proportionately, than the increase in the money supply. At this point, the government is often called upon to "relieve the money shortage" caused by the accelerated price rise, and it inflates even faster. Soon, the country reaches the stage of the "crack-up boom," when people say: "I must buy anything now—anything to get rid of money which depreciates on my hands." The supply of money skyrockets, the demand plummets, and prices rise astronomically. Production falls sharply, as people spend more and more of their time finding ways to get rid of their money. The monetary system has, in effect, broken down completely, and the economy reverts to other moneys, if they are attainable—other metal, foreign currencies if this is a one-country inflation, or even a return to barter conditions. The monetary system has broken down under the impact of inflation.

This condition of *hyper-inflation* is familiar historically in the *assignats* of the French Revolution, the Continentals of the American Revolution, and especially the German crisis of 1923, and the Chinese and other currencies after World War II.⁵

A final indictment of inflation is that whenever the newly issued money is first used as loans to business, inflation causes the dread "business cycle." This silent but deadly process, undetected for generations, works as follows: new money is issued by the banking system, under the aegis of government, and loaned to business. To businessmen, the new funds seem to be genuine investments, but these funds do not, like free market investments, arise from voluntary savings. The new money is invested by businessmen in various projects, and paid out to workers and other factors as higher wages and prices. As the new money filters down to the whole economy, and the people tend to reestablish their old voluntary consumption/saving proportions. In short, if people wish to save and invest about 20 percent of their incomes and consume the rest, new bank money loaned to business at first makes the saving proportion look higher. When the new money seeps down to the public, it reestablishes its old 20:80 proportion, and many investments are now revealed to be wasteful. Liquidation of the wasteful investments of the inflationary boom constitutes the *depression* phase of the business cycle.⁶

⁵On the German example, see Costantino Bresciani-Turroni, *The Economics of Inflation* (London: George Allen and Unwin, 1937).

⁶For a further discussion, see Murray N. Rothbard, *America's Great Depression* (Princeton, N.J.: D. Van Nostrand, 1963), pt. I.

3.

COMPULSORY MONOPOLY OF THE MINT

For government to use counterfeiting to add to its revenue, many lengthy steps must be travelled down the road away from the free market. Government could not simply invade a functioning free market and print its own paper tickets. Done so abruptly, few people would accept the government's money. Even in modern times, many people in "backward countries" have simply refused to accept paper money, and insist on trading only in gold. Governmental incursion, therefore, must be far more subtle and gradual.

Until a few centuries ago, there were no banks, and therefore the government could not use the banking engine for massive inflation as it can today. What could it do when only gold and silver circulated?

The first step, taken firmly by every sizeable government, was to seize an absolute monopoly of the *minting* business. That was the indispensable means of getting control of the coinage supply. The king's or the lord's picture was stamped upon coins, and the myth was propagated that coinage is an essential prerogative of royal or baronial "sovereignty." The mintage monopoly allowed government to supply whatever denominations of coin it, and not the public, wanted. As a result, the variety of coins on the market was forcibly reduced. Furthermore, the mint could now charge a high price, greater than costs ("seigniorage"), a price just covering costs ("brassage"), or supply coins free of charge. Seigniorage was a monopoly price, and it imposed a special burden on the conversion of bullion to coin; gratuitous coinage, on the

other hand, overstimulated the manufacture of coins from bullion, and forced the general taxpayer to pay for minting services utilized by others.

Having acquired the mintage monopoly, governments fostered the use of the *name* of the monetary unit, doing their best to separate the name from its true base in the underlying weight of the coin. This, too, was a highly important step, for it liberated each government from the necessity of abiding by the common money of the world market. Instead of using grains or grams of gold or silver, each State fostered its own national name in the supposed interests of monetary patriotism: dollars, marks, francs, and the like. The shift made possible the pre-eminent means of governmental counterfeiting of coin: debasement.

4.

DEBASEMENT

Debasement was the State's method of counterfeiting the very coins it had banned private firms from making in the name of vigorous protection of the monetary standard. Sometimes, the government committed simple fraud, secretly diluting gold with a base alloy, making shortweight coins. More characteristically, the mint melted and recoinced all the coins of the realm, giving the subjects back the same number of "pounds" or "marks," but of a lighter weight. The leftover ounces of gold or silver were pocketed by the king and used to pay his expenses. In that way, government continually juggled and redefined the very standard it was pledged to protect. The profits of debasement were haughtily claimed as "seigniorage" by the rulers.

Rapid and severe debasement was a hallmark of the Middle Ages, in almost every country in Europe. Thus, in 1200 A.D., the French *livre tournois* was defined at ninety-eight grams of fine silver; by 1600 A.D. it signified only eleven grams. A striking case is the *dinar*, a coin of the Saracens in Spain. The *dinar* originally consisted of sixty-five gold grains, when first coined at the end of the seventh century. The Saracens were notably sound in monetary matters, and by the middle of the twelfth century, the *dinar* was still sixty grains. At that point, the Christian kings conquered Spain, and by the early thirteenth century, the *dinar* (now called *maravedi*) was reduced to fourteen grains. Soon the gold coin was too light to circulate, and it was converted into a *silver* coin weighing twenty-six grains of silver. This, too, was debased, and by the mid-fifteenth century, the *maravedi* was only 1.5 silver grains, and again too small to circulate.⁷

5.

GRESHAM'S LAW AND COINAGE

A. Bimetallism

Government imposes price controls largely in order to divert public attention from governmental inflation to the alleged evils of the free market. As we have seen, "Gresham's Law"—that an artificially overvalued money tends to drive an artificially undervalued money out of circulation—is an example of the general

⁷On debasement, see Elgin Groseclose, *Money and Man* (New York: Frederick Ungar, 1961), pp. 57–76.

consequences of price control. Government places, in effect, a maximum price on one type of money in terms of the other. Maximum price causes a shortage—disappearance into hoards or exports—of the currency suffering the maximum price (artificially undervalued), and leads it to be replaced in circulation by the over-priced money.

We have seen how this works in the case of new vs. worn coins, one of the earliest examples of Gresham's Law. Changing the meaning of money from weight to mere tale, and standardizing denominations for their own rather than for the public's convenience, the governments called new and worn coins by the same name, even though they were of different weight. As a result, people hoarded or exported the full weight new coins, and passed the worn coins in circulation, with governments hurling maledictions at "speculators," foreigners, or the free market in general, for a condition brought about by the government itself.

A particularly important case of Gresham's Law was the perennial problem of the "standard." We saw that the free market established "parallel standards" of gold and silver, each freely fluctuating in relation to the other in accordance with market supplies and demands. But governments decided they would help out the market by stepping in to "simplify" matters. How much clearer things would be, they felt, if gold and silver were fixed at a definite ratio, say, twenty ounces of silver to one ounce of gold! Then, both moneys could always circulate at a fixed ratio—and, far more importantly, the government could finally rid itself of the burden of treating money by weight instead of by tale. Let us imagine a unit, the "rur," defined by Ruritanians as $1/20$

of an ounce of gold. We have seen how vital it is for the government to induce the public to regard the “*rur*” as an abstract unit of its own right, only loosely connected to gold. What better way of doing this than to fix the gold/silver ratio? Then, “*rur*” becomes not only 1/20 ounce of gold, *but also* one ounce of silver. The precise meaning of the word “*rur*”—a name for gold weight—is now lost, and people begin to think of the “*rur*” as something tangible in its own right, somehow set by the government, for good and efficient purposes, as equal to certain weights of both gold and silver.

Now we see the importance of abstaining from patriotic or national names for gold ounces or grains. Once such a label replaces the recognized world units of weight, it becomes much easier for governments to manipulate the money unit and give it an apparent life of its own. The fixed gold-silver ratio, known as *bimetallicism*, accomplished this task very neatly. It did not, however, fulfill its other job of simplifying the nation’s currency. For, once again, Gresham’s Law came into prominence. The government usually set the bimetallic ratio originally (say, 20/1) at the going rate on the free market. But the market ratio, like all market prices, inevitably changes over time, as supply and demand conditions change. As changes occur, the fixed bimetallic ratio inevitably becomes obsolete. Change makes either gold or silver overvalued. Gold then disappears into cash balance, black market, or exports, when silver flows in from abroad and comes out of cash balances to become the only circulating currency in Ruritania. For centuries, all countries struggled with calamitous effects of suddenly alternating metallic currencies. First silver would flow in and gold disappear; then, as

the relative market ratios changed, gold would pour in and silver disappear.⁸

Finally, after weary centuries of bimetallic disruption, governments picked one metal as the standard, generally gold. Silver was relegated to “token coin” status, for small denominations, but not at full weight. (The minting of token coins was also monopolized by government, and, since not backed 100 percent by gold, was a means of expanding the money supply.) The eradication of silver as money certainly injured many people who preferred to use silver for various transactions. There was truth in the war-cry of the bimetallicists that a “crime against silver” had been committed; but the crime was really the original imposition of bimetallicism in lieu of parallel standards. Bimetallicism created an impossibly difficult situation, which the government could either meet by going back to full monetary freedom (parallel standards) or by picking one of the two metals as money (gold or silver standard). Full monetary freedom, after all this time, was considered absurd and quixotic; and so the gold standard was generally adopted.

B. Legal Tender

How was the government able to enforce its price controls on monetary exchange rates? By a device known as *legal tender laws*. Money is used for payment of past debts, as well as for present “cash” transactions. With the name of the country’s currency now prominent in accounting instead its actual weight, contracts began to

⁸Many debasements, in fact, occurred covertly, with governments claiming that they were merely bringing the official gold-silver ratio into closer alignment with the market.

pledge payment in certain amounts of “money.” *Legal tender laws* dictated what that “money” could be. When only the original gold or silver was designated “legal tender,” people considered it harmless, but they should have realized that a dangerous precedent had been set for government control of money. If the government sticks to the original money, its legal tender law is superfluous and unnecessary.⁹ On the other hand, the government may declare as legal tender a lower-quality currency side by side with the original. Thus, the government may decree worn coins as good as new ones in paying off debt, of silver and gold equivalent to each other in the fixed ratio. The legal tender laws then bring Gresham’s Law into being.

When legal tender laws enshrine an overvalued money, they have another effect; they favor debtors at the expense of creditors. For then debtors are permitted to pay back their debts in a much poorer money than they had borrowed, and creditors are swindled out of the money rightfully theirs. This confiscation of creditors’ property, however, only benefits outstanding debtors; *future* debtors will be burdened by the scarcity of credit generated by the memory of government spoilation of creditors.

⁹“The ordinary law of contract does all that is necessary without any law giving special functions to particular forms of currency. We have adopted a gold sovereign as our unit. . . . If I promise to pay 100 sovereigns, it needs no special currency law of legal tender to say that I am bound to pay 100 sovereigns, and that, if required to pay the 100 sovereigns, I cannot discharge my obligation by paying anything else.” Lord Farrer, *Studies in Currency* 1898 (London: Macmillan, 1898), p. 43. On the legal tender laws, see also Ludwig von Mises, *Human Action: A Treatise on Economics* (New Haven, Conn.: Yale University Press, 1949), pp. 32n, 444.

6.

**SUMMARY:
GOVERNMENT AND COINAGE**

The compulsory minting monopoly and legal tender legislation were the capstones in governments' drive to gain control of their nations' money. Bolstering these measures, each government moved to abolish the circulation of all coins minted by rival governments.¹⁰ Within each country, only the coin of its own sovereign could now be used; between countries, unstamped gold and silver bullion was used in exchange. This further severed the ties between the various parts of the world market, further sundering one country from another, and disrupting the international division of labor. Yet, purely hard money did not leave too much scope for governmental inflation. There were limits to the debasing that governments could engineer, and the fact that all countries used gold and silver placed definite checks on the control of each government over its own territory. The rulers were still held in check by the discipline of an international metallic money.

Governmental control of money could only become absolute, and its counterfeiting unchallenged, as money-substitutes came into prominence in recent centuries. The advent of paper money and bank deposits, an economic boon when backed fully by gold or silver, provided the open sesame for government's road

¹⁰The use of foreign coins was prevalent in the Middle Ages and in the United States down to the middle of the nineteenth century.

to power over money, and thereby over the entire economic system.

7.

PERMITTING BANKS TO REFUSE PAYMENT

The modern economy, with its widespread use of banks and money-substitutes, provides the golden opportunity for government to fasten its control over the money supply and permit inflation at its discretion. We have seen in section 12, page 20, that there are three great checks on the power of any bank to inflate under a “free banking” system: (1) the extent of the clientele of each bank; (2) the extent of the clientele of the whole banking system—i.e., the extent to which people use money-substitutes, and (3) the confidence of the clients in their banks. The narrower the clientele of each bank, of the banking system as a whole, or the shakier the state of confidence, the stricter will be the limits on inflation in the economy. Government’s privileging and controlling of the banking system has operated to suspend these limits.

All these limits, of course, rest on one fundamental obligation: the duty of the banks to redeem their sworn liabilities on demand. We have seen that no fractional-reserve bank can redeem all of its liabilities; and we have also seen that this is the gamble that every bank takes. But it is, of course, essential to any system of private property that contract obligations be fulfilled. The bluntest way for government to foster inflation, then, is to grant the banks the special privilege of refusing to pay their obligations, while yet continuing in their

operation. While everyone else must pay their debts or go bankrupt, the banks are permitted to refuse redemption of their receipts, at the same time forcing their own debtors to pay when their loans fall due. The usual name for this is a “suspension of specie payments.” A more accurate name would be “license for theft;” for what else can we call a governmental permission to continue in business without fulfilling one’s contract?

In the United States, mass suspension of specie payment in times of bank troubles became almost a tradition. It started in the War of 1812. Most of the country’s banks were located in New England, a section unsympathetic to America’s entry into the war. These banks refused to lend for war purposes, and so the government borrowed from new banks in the other states. These banks issued new paper money to make the loans. The inflation was so great that calls for redemption flooded into the new banks, especially from the conservative non-expanding banks of New England, where the government spent most of its money on war goods. As a result, there was a mass “suspension” in 1814, lasting for over two years (well beyond the end of the war); during that time, banks sprouted up, issuing notes with no need to redeem in gold or silver.

This suspension set a precedent for succeeding economic crises; 1819, 1837, 1857, and so forth. As a result of this tradition, the banks realized that they need have no fear of bankruptcy after an inflation, and this, of course, stimulated inflation and “wildcat banking.” Those writers who point to nineteenth-century America as a horrid example of “free banking,” fail to realize the importance of this clear dereliction of duty by the states in every financial crisis.

The governments and the banks persuaded the public of the justice of their acts. In fact, anyone trying to get his money back during a crisis was considered “unpatriotic” and a despoiler of his fellowmen, while banks were often commended for patriotically bailing out the community in a time of trouble. Many people, however, were bitter at the entire proceeding, and from this sentiment grew the famous “hard money” Jacksonian movement that flourished before the Civil War.¹¹

Despite its use in the United States, such periodic privilege to banks did not catch hold as a general policy in the modern world. It was a crude instrument, too sporadic (it could not be permanent since few people would patronize banks that never paid their obligations)—and, what’s more, it provided no means of government control over the banking system. What governments want, after all, is not simply inflation, but inflation completely controlled and directed by themselves. There must be no danger of the banks running the show. And so, a far subtler, smoother, more permanent method was devised, and sold to the public as a hallmark of civilization itself—Central Banking.

8.

CENTRAL BANKING: REMOVING THE CHECKS ON INFLATION

Central Banking is now put in the same class with modern plumbing and good roads: any economy that

¹¹See Horace White, *Money and Banking*, 4th ed. (Boston: Ginn, 1911), pp. 322–27.

doesn't have it is called "backward," "primitive," hopelessly out of the swim. America's adoption of the Federal Reserve System—our Central Bank—in 1913 was greeted as finally putting us in the ranks of the advanced "nations."

Central banks are often nominally owned by private individuals or, as in the United States, jointly by private banks; but they are always directed by government-appointed officials, and serve as arms of the government. Where they are privately owned, as in the original Bank of England or the Second Bank of the United States, their prospective profits add to the usual governmental desire for inflation.

A Central Bank attains its commanding position from its governmentally granted *monopoly of the note issue*. This is often the unsung key to its power. Invariably, private banks are prohibited from issuing notes, and the privilege is reserved to the Central Bank. The private banks can only grant deposits. If their customers ever wish to shift from deposits to notes, therefore, the banks must go to the Central Bank to get them. Hence the Central Bank's lofty perch as a "bankers' bank." It is a bankers' bank because the bankers are forced to do business with it. As a result, bank deposits became not only in gold but also in Central Bank notes. And these new notes were not just plain bank notes. They were liabilities of the Central Bank, an institution invested with all the majestic aura of the government itself. Government, after all, appoints the Bank officials and coordinates its policy with other state policy. It receives the notes in taxes, and declares them to be legal tender.

As a result of these measures, all the banks in the country became clients of the Central Bank.¹² Gold poured into the Central Bank from the private banks, and, in exchange, the public got Central Bank notes and the disuse of gold coins. Gold coins were scoffed at by “official” opinion as cumbersome, old-fashioned, inefficient—an ancient “fetish,” perhaps useful in children’s socks at Christmas, but that’s about all. How much safer, more convenient, more efficient is the gold when resting as bullion in the mighty vaults of the Central Bank! Bathed by this propaganda, and influenced by the convenience and governmental backing of the notes, the public more and more stopped using gold coins in its daily life. Inexorably, the gold flowed into the Central Bank where, more “centralized,” it permitted a far greater degree of inflation of money-substitutes.

In the United States, the Federal Reserve Act compels the banks to keep the minimum ratio of reserves to deposits and, since 1917, these reserves could only consist of deposits at the Federal Reserve Bank. Gold could no longer be part of a bank’s legal reserves; it had to be deposited in the Federal Reserve Bank.

The entire process took the public off the gold habit and placed the people’s gold in the none-too-tender care of the State—where it could be confiscated almost painlessly. International traders still used gold bullion

¹²In the United States, the banks were forced by law to join the Federal Reserve System, and to keep their accounts with the Federal Reserve Banks. (Those “state banks” that are not members of the Federal Reserve System keep their reserves with member banks.)

in their large-scale transactions, but they were an insignificant proportion of the voting population.

One of the reasons the public could be lured from gold to bank notes was the great *confidence* everyone had in the Central Bank. Surely, the Central Bank, possessed of almost all the gold in the realm, backed by the might and prestige of government, could not fail and go bankrupt! And it is certainly true that no Central Bank in recorded history has ever failed. But why not? Because of the sometimes unwritten but very clear rule that it *could not* be permitted to fail! If governments sometimes allowed private banks to suspend payment, how much more readily *would* it permit the Central Bank—its own organ—to suspend when in trouble! The precedent was set in Central Banking history when England permitted the Bank of England to suspend in the late eighteenth century, and allowed this suspension for over twenty years.

The Central Bank thus became armed with the almost unlimited confidence of the public. By this time, the public could not see that the Central Bank was being allowed to counterfeit at will, and yet remain immune from any liability if its bona fides should be questioned. It came to see the Central Bank as simply a great national bank, performing a public service, and protected from failure by being a virtual arm of the government.

The Central Bank proceeded to invest the private banks with the public's confidence. This was a more difficult task. The Central Bank let it be known that it would always act as a "lender of last resort" to the banks—i.e., that the Bank would stand ready to lend

money to any bank in trouble, especially when many banks are called upon to pay their obligations.

Governments also continued to prop up banks by discouraging bank “runs” (i.e., cases where many clients suspect chicanery and ask to get back their property). Sometimes, they will permit banks to suspend payment, as in the compulsory bank “holidays” of 1933. Laws were passed prohibiting public encouragement of bank runs, and, as in the 1929 depression in America, government campaigned against “selfish” and “unpatriotic” gold “hoarders.” America finally “solved” its pesky problem of bank failures when it adopted Federal Deposit Insurance in 1933. The Federal Deposit Insurance Corporation has only a negligible proportion of “backing” for the bank deposits it “insures.” But the public has been given the impression (and one that may well be accurate) that the federal government would stand ready to print enough new money to redeem all of the insured deposits. As a result, the government has managed to transfer its own command of vast public confidence to the entire banking system, as well as to the Central Bank.

We have seen that, by setting up a Central Bank, governments have greatly widened, if not removed, two of the three main checks on bank credit inflation. What of the third check, the problem of the narrowness of each bank’s clientele? Removal of this check is one of the main reasons for the Central Bank’s existence. In a free-banking system, inflation by any one bank would soon lead to demands for redemption by the other banks, since the clientele of any one bank is severely limited. But the Central Bank, by pumping reserves into all the banks, can make sure that they can

all expand together, and at a uniform rate. If all banks are expanding, then there is no redemption problem of one bank upon another, and each bank finds bank expansion of one bank upon another, and each bank finds that its clientele is really the whole country. In short, the limits on bank expansion are immeasurably widened, from the clientele of each bank to that of the whole banking system. Of course, this means that no bank can expand further than the Central Bank desires. Thus, the government has finally achieved the power to control and direct the inflation of the banking system.

In addition to removing the checks on inflation, the act of establishing a Central Bank has a direct inflationary impact. Before the Central Bank began, banks kept their reserves in gold; now gold flows into the Central Bank in exchange for deposits with the Bank, which are now reserves for the commercial banks. But the Bank itself keeps only a fractional reserve of gold to its own liabilities! Therefore, the act of establishing a Central Bank greatly multiplies the inflationary potential of the country.¹³

¹³The establishment of the Federal Reserve in this way increased three-fold the expansive power of the banking system of the United States. The Federal Reserve System also reduced the average legal reserve requirements of all banks from approximately 21 percent in 1913 to 10 percent by 1917, thus further doubling the inflationary potential—a combined potential inflation of six-fold. See Chester A. Phillips, T.F. McManus, and R.W. Nelson, *Banking and the Business Cycle* (New York: MacMillan, 1937), pp. 23ff.

9.

**CENTRAL BANKING:
DIRECTING THE INFLATION**

Precisely how does the Central Bank go about its task of regulating the private banks? By controlling the banks' "reserves"—their deposit accounts at the Central Bank. Banks tend to keep a certain ratio of reserves to their total deposit liabilities, and in the United States government control is made easier by imposing a legal minimum ratio on the banks. The Central Bank can stimulate inflation, then, by pouring reserves into the banking system, and also by lowering the reserve ratio, thus permitting a nationwide bank credit expansion. If the banks keep a reserve/deposit ratio of 1:10, then "excess reserves" (above the required ratio) of ten million dollars will permit and encourage a nationwide bank inflation of one hundred million. Since banks profit by credit expansion, and since government has made it almost impossible for them to fail, they will usually try to keep "loaned up" to their allowable maximum.

The Central Bank adds to the quantity of bank reserves by buying assets on the market. What happens, for example, if the Bank buys an asset (any asset) from Mr. Jones, valued at \$1,000? The Central Bank writes out a check to Mr. Jones for \$1,000 to pay for the asset. The Central Bank does not keep individual accounts, so Mr. Jones takes the check and deposits it in his bank. Jones' bank credits him with a \$1,000 deposit, and presents the check to the Central Bank, which has to credit the bank with an added \$1,000 in reserves. This \$1,000 in reserves permits a multiple bank credit expansion,

particularly if added reserves are in this way poured into many banks across the country.

If the Central Bank buys an asset from a bank directly, then the result is even clearer; the bank adds to its reserves, and a base for multiple credit expansion is established.

Undoubtedly, the favorite asset for Central Bank purchase has been government securities. In that way, the government assures a market for its own securities. Government can easily inflate the money supply by issuing new bonds, and then orders its Central Bank to purchase them. Often the Central Bank undertakes to support the market price of government securities at a certain level, thereby causing a flow of securities into the Bank, and a consequent perpetual inflation.

Besides buying assets, the Central Bank can create new bank reserves in another way: by lending them. The rate which the Central Bank charges the banks for this service is the "rediscount rate." Clearly, borrowed reserves are not as satisfactory to the banks as reserves that are wholly theirs, since there is now pressure for repayment. Changes in the rediscount rate receive a great deal of publicity, but they are clearly of minor importance compared to the movements in the quantity of bank reserves and the reserve ratio.

When the Central Bank sells assets to the banks or the public, it lowers bank reserves, and causes pressure for credit contraction and deflation—lowering—of the money supply. We have seen, however, that governments are inherently inflationary; historically, deflationary action by the government has been negligible and fleeting. One thing is often forgotten: deflation can

only take place after a previous inflation; only pseudo-receipts, not gold coins, can be retired and liquidated.

10.

GOING OFF THE GOLD STANDARD

The establishment of Central Banking removes the checks of bank credit expansion and puts the inflationary engine into operation. It does not remove all restraints, however. There is still the problem of the Central Bank itself. The citizens can conceivably make a run on the Central Bank, but this is most improbable. A more formidable threat is the loss of gold to foreign nations. For just as the expansion of one bank loses gold to the clients of other, non-expanding banks, so does monetary expansion in one country cause a loss of gold to the citizens of other countries. Countries that expand faster are in danger of gold losses and call upon their banking systems for gold redemption. This was the classic cyclical pattern of the nineteenth century; a country's Central Bank would generate bank credit expansion; prices would rise; and as the new money spread from domestic to foreign clientele, foreigners would more and more try to redeem the currency in gold. Finally, the Central Bank would have to call a halt and enforce a credit contraction in order to save the monetary standard.

There is one way that foreign redemption can be avoided: inter-Central Bank cooperation. If all Central Banks agree to inflate at about the same rate, then no country would lose gold to any other, and all the world together could inflate almost without limit. With every government jealous of its own power and responsive to

different pressures, however, such goose-step cooperation has so far proved almost impossible. One of the closest approaches was the American Federal Reserve agreement to promote domestic inflation in the 1920s in order to help Great Britain and prevent it from losing gold to the United States.

In the twentieth century, governments, rather than deflate or limit their own inflation, have simply “gone off the gold standard” when confronted with heavy demands for gold. This, of course, insures that the Central Bank cannot fail, since its notes now become the standard money. In short, government has finally refused to pay its debts and has virtually absolved the banking system from that onerous duty. Pseudo-receipts to gold were first issued without banking and then, when the day of reckoning drew near, the bankruptcy was shamelessly completed by simply eliminating gold redemption. The severance of the various national currency names (dollar, pound, mark) from gold and silver is now complete.

At first, governments refused to admit that this was a permanent measure. They referred to the “suspension of specie payments,” and it was always understood that eventually, after the war or other “emergency” had ended, the government would again redeem its obligations. When the Bank of England went off gold at the end of the eighteenth century, it continued in this state for twenty years but always with the understanding that gold payment would be resumed after the French wars were ended.

Temporary “suspensions,” however, are primrose paths to outright repudiation. The gold standard, after

all, is no spigot that can be turned on or off as government whim decrees. Either a gold-receipt is redeemable or it is not; once redemption is suspended the gold standard is itself a mockery.

Another step in the slow extinction of gold money was the establishment of the “gold bullion standard.” Under this system, the currency is no longer redeemable in coins; it can only be redeemed in large, highly valuable, gold bars. This, in effect, limits gold redemption to a handful of specialists in foreign trade. There is no longer a true gold standard, but governments can still proclaim their adherence to gold. The European “gold standards” of the 1920s were pseudo-standards of this type.¹⁴

Finally, governments went “off gold” officially and completely, in a thunder of abuse against foreigners and “unpatriotic gold hoarders.” Government paper now becomes the *fiat* standard money. Sometimes, Treasury rather than Central Bank paper has been the fiat money, especially before the development of a Central Banking system. The American continentals, the greenbacks and Confederate notes of the Civil War period, the French *assignats*, were all fiat currencies issued by the Treasuries. But whether Treasury or Central Bank, the effect of fiat issue is the same: the monetary standard is now at the mercy of the government, and bank deposits are redeemable simply in government paper.

¹⁴See Melchior Palyi, “The Meaning of the Gold Standard,” *Journal of Business* 14, no. 3 (July 1941): 294–314, esp. 299–304.

11.

FIAT MONEY AND THE GOLD PROBLEM

When a country goes off the gold standard and onto the fiat standard, it adds to the number of “moneys” in existence. In addition to the commodity moneys, gold and silver, there now flourish independent moneys directed by each government imposing its fiat rule. And just as gold and silver will have an exchange rate on the free market, so the market will establish exchange rates for all the various moneys. In a world of fiat moneys, each currency, if permitted, will fluctuate freely in relation to all the others. We have seen that for any two moneys, the exchange rate is set in accordance with the proportionate purchasing-power parities, and that these in turn are determined by the respective supplies and demands for the various currencies. When a currency changes its character from gold-receipt to fiat paper, confidence in its stability and quality is shaken, and demand for it declines. Furthermore, now that it is cut off from gold, its far greater quantity relative its former gold backing now becomes evident. With a supply greater than gold and a lower demand, its purchasing-power, and hence its exchange rate, quickly depreciates in relation to gold. And since government is inherently inflationary, it will keep depreciating as time goes on.

Such depreciation is highly embarrassing to the government—and hurts citizens who try to import goods. The existence of gold in the economy is a constant reminder of the poor quality of the government paper, and it always poses a threat to replace the paper as the country’s money. Even with the government giving all the backing of its prestige and its legal tender

laws to its fiat paper, gold coins in the hands of the public will always be a permanent reproach and menace to the government's power over the country's money.

In America's first depression, 1819–1821, four Western states (Tennessee, Kentucky, Illinois, and Missouri) established state-owned banks, issuing fiat paper. They were backed by legal tender provisions in the states, and sometimes by legal prohibition against depreciating the notes. And yet, all these experiments, born in high hopes, came quickly to grief as the new paper depreciated rapidly to negligible value. The projects had to be swiftly abandoned. Later, the greenbacks circulated as fiat paper in the North during and after the Civil War. Yet, in California, the people refused to accept the greenbacks and continued to use gold as their money. As a prominent economist pointed out:

In California, as in other states, the paper was legal tender and was receivable for public dues; nor was there any distrust or hostility toward the federal government. But there was a strong feeling . . . in favor of gold and against paper. . . . Every debtor had the legal right to pay off his debts in depreciated paper. But if he did so, he was a marked man (the creditor was likely to post him publicly in the newspapers) and he was virtually boycotted. Throughout this period paper was not used in California. The people of the state conducted their transactions in gold, while all the rest of the United States used convertible paper.¹⁵

¹⁵Frank W. Taussig, *Principles of Economics*, 2nd ed. (New York: Macmillan, 1916), I, 312. Also see J.K. Upton, *Money in Politics*, 2nd ed. (Boston: Lothrop, 1895), pp. 69ff.

It became clear to governments that they could not afford to allow people to own and keep their gold. Government could never cement its power over a nation's currency, if the people, when in need, could repudiate the fiat paper and turn to gold for its money. Accordingly, governments have outlawed gold holding by their citizens. Gold, except for a negligible amount permitted for industrial and ornamental purposes, has generally been nationalized. To ask for return of the public's confiscated property is now considered hopelessly backward and old-fashioned.¹⁶

12.

FIAT MONEY AND GRESHAM'S LAW

With fiat money established and gold outlawed, the way is clear for full-scale, government-run inflation. Only one very broad check remains: the ultimate threat of hyper-inflation, the crack-up of the currency. Hyper-inflation occurs when the public realizes that the government is bent on inflation and decides to evade the inflationary tax on its resources by spending money as fast as possible while it still retains some value. Until hyper-inflation sets in, however, government can now manage the currency and the inflation undisturbed. New difficulties arise, however. As always, government intervention to cure one problem raises a host of new, unexpected problems. In a world of fiat

¹⁶For an incisive analysis of the steps by which the American government confiscated the people's gold and went off the gold standard in 1933, see Garett Garrett, *The People's Pottage* (Caldwell, Idaho: Caxton Printers, 1953), pp. 15–41.

moneys, each country has its own money. The international division of labor, based on an international currency, has been broken, and countries tend to divide into their own autarchic units. Lack of monetary certainty disrupts trade further. The standard of living in each country thereby declines. Each country has freely fluctuating exchange rates with all other currencies. A country inflating beyond the others no longer fears a loss of gold, but it faces other unpleasant consequences. The exchange rate of its currency falls in relation to foreign currencies. This is not only embarrassing but even disturbing to citizens who fear further depreciation. It also greatly raises the costs of imported goods, and this means a great deal to those countries with a high proportion of international trade.

In recent years, therefore, governments have moved to abolish freely fluctuating exchange rates. Instead, they fixed arbitrary exchange rates with other currencies. Gresham's Law tells us precisely the result of any such arbitrary price control. Whatever rate is set will not be the free market one, since that can be only be determined from day to day on the market. Therefore, one currency will always be artificially overvalued and the other, undervalued. Generally, governments have deliberately overvalued their currencies for prestige reasons, and also because of the consequences that follow. When a currency is overvalued by decree, people rush to exchange it for the undervalued currency at the bargain rates; this causes a surplus of overvalued, and a shortage of the undervalued, currency. The rate, in short, is prevented from moving to clear the exchange market. In the present world, foreign currencies have generally been overvalued relative to the dollar. The

result has been the famous phenomenon of the “dollar shortage”—another testimony to the operation of Gresham’s Law.

Foreign countries, clamoring about a “dollar shortage,” thus brought it about by their own policies. It is possible that these governments actually welcomed this state of affairs, for (a) it gave them an excuse to clamor for American dollar aid to “relieve the dollar shortage in the free world,” and (b) it gave them an excuse to ration imports from America. Undervaluing dollars causes imports from America to be artificially cheap and exports to America artificially expensive [Ed.: this sentence was truncated in the 4th edition]. The result: a trade deficit and worry over the dollar drain.¹⁷ The foreign government then stepped in to tell its people sadly that it is unfortunately necessary for it to ration imports: to issue license to importers, and determine what is imported “according to need.” To ration imports, many governments confiscate the foreign exchange holdings of their citizens, backing up an artificially high valuation on domestic currency by forcing these citizens to accept far less domestic money than they could have acquired on the free market. Thus, foreign exchange, as well as gold, has been nationalized, and exporters penalized. In countries where foreign trade is vitally important, this government “exchange control” imposes virtual socialization on the economy. An artificial exchange rate thus gives

¹⁷In the last few years, the dollar has been overvalued in relation to other currencies, and hence the dollar drains from the U.S.

countries an excuse for demanding foreign aid and for imposing socialist controls over trade.¹⁸

At present, the world is enmeshed in a chaotic welter of exchange controls, currency blocs, restrictions on convertibility, and multiple systems of rates. In some countries a "black market" in foreign exchange is legally encouraged to find out the true rate, and multiple discriminatory rates are fixed for different types of transactions. Almost all nations are on a fiat standard, but they have not had the courage to admit this outright, and so they proclaim some such fiction as "restricted gold bullion standard." Actually, gold is used not as a true definition for currencies, but as a convenience by governments: (a) for fixing a currency's rate with respect to gold makes it easy to reckon any exchange in terms of any other currency; and (b) gold is still used by the different governments. Since exchange rates are fixed, some item must move to balance every country's payments, and gold is the ideal candidate. In short gold is no longer the world's money; it is now the *governments'* money, used in payments to one another.

Clearly, the inflationists' dream is some sort of world paper money, manipulated by a world government and Central Bank, inflating everywhere at a common rate. This dream still lies in the dim future, however; we are still far from world government, and a national currency problems have so far been too diverse and conflicting to permit meshing into a single

¹⁸For an excellent discussion of foreign exchange and exchange controls, see George Winder, *The Free Convertibility of Sterling* (London: Batchworth Press, 1955).

unit. Yet, the world has moved steadily in this direction. The International Monetary Fund, for example, is basically an institution designed to bolster national exchange control in general, and foreign undervaluation of the dollar in particular. The Fund requires each member country to fix its exchange rate, and then to pool gold and dollars to lend to governments that find themselves short of hard currency.

13.

GOVERNMENT AND MONEY

Many people believe that the free market, despite some admitted advantages, is a picture of disorder and chaos. Nothing is “planned,” everything is haphazard. Government dictation, on the other hand, seems simple and orderly; decrees are handed down and they are obeyed. In no area of the economy is this myth more prevalent than in the field of money. Seemingly, money, at least, must come under stringent government control. But money is the lifeblood of the economy; it is the medium for all transactions. If government dictates over money, it has already captured a vital command post for control over the economy, and has secured a stepping-stone for full socialism. We have seen that a free market in money, contrary to common assumption, would not be chaotic; that, in fact, it would be a model of order and efficiency.

What, then, have we learned about government and money? We have seen that, over the centuries, government has, step by step, invaded the free market and seized complete control over the monetary system. We have seen that each new control, sometimes seemingly

innocuous, has begotten new and further controls. We have seen that for governments are inherently inflationary, since inflation is a tempting means of acquiring revenue for the State and its favored groups. The slow but certain seizure of the monetary reins has thus been used to (a) inflate the economy at a pace decided by government, and (b) bring about socialistic direction of the entire economy.

Furthermore, government meddling with money has not only brought untold tyranny into the world; it has also brought chaos and not order. It has fragmented the peaceful, productive world market and shattered it into a thousand pieces, with trade and investment hobbled and hampered by myriad restrictions, controls, artificial rates, currency breakdowns, etc. It has helped bring about wars by transforming a world of peaceful intercourse into a jungle of warring currency blocs. In short, we find that coercion, in money as in other matters, brings, not order, but conflict and chaos.

1

The Positive Theory of the Cycle

Study of business cycles must be based upon a satisfactory cycle theory. Gazing at sheaves of statistics without “pre-judgment” is futile. A cycle takes place in the economic world, and therefore a usable cycle theory must be integrated with general economic theory. And yet, remarkably, such integration, even attempted integration, is the exception, not the rule. Economics, in the last two decades, has fissured badly into a host of airtight compartments—each sphere hardly related to the others. Only in the theories of Schumpeter and Mises has cycle theory been integrated into general economics.¹

The bulk of cycle specialists, who spurn any systematic integration as impossibly deductive and overly simplified, are thereby (wittingly or unwittingly) rejecting economics itself. For if one may forge a theory of the cycle with little or no relation to general economics, then general economics must be incorrect, failing as it does to account for such a vital economic phenomenon. For institutionalists—the pure data collectors—if not for others, this is a welcome conclusion. Even institutionalists, however, must use theory sometimes, in analysis and recommendation; in fact, they end by using a concoction of *ad hoc* hunches, insights, etc.,

¹Various neo-Keynesians have advanced cycle theories. They are integrated, however, not with *general* economic theory, but with holistic Keynesian systems—systems which are very *partial* indeed.

plucked unsystematically from various theoretical gardens. Few, if any, economists have realized that the Mises theory of the trade cycle is not just another theory: that, in fact, it meshes closely with a general theory of the economic system.² The Mises theory is, in fact, the economic analysis of the necessary consequences of *intervention* in the free market by bank credit expansion. Followers of the Misesian theory have often displayed excessive modesty in pressing its claims; they have widely protested that the theory is “only one of many possible explanations of business cycles,” and that each cycle may fit a different causal theory. In this, as in so many other realms, eclecticism is misplaced. Since the Mises theory is the only one that stems from a general economic theory, it is the only one that can provide a correct explanation. Unless we are prepared to abandon general theory, we must reject all proposed explanations that do not mesh with general economics.

BUSINESS CYCLES AND BUSINESS FLUCTUATIONS

It is important, first, to distinguish between *business cycles* and ordinary *business fluctuations*. We live necessarily in a society of continual and unending change, change that can never be precisely charted in advance. People try to forecast and anticipate changes as best they can, but such forecasting can never be reduced to an exact science. Entrepreneurs are in the business of forecasting changes on the market, both for conditions of demand and of supply. The more successful ones make profits *pari passu* with their accuracy of judgment, while the unsuccessful forecasters fall by the wayside. As a result, the successful entrepreneurs on the free market will be the ones most adept at anticipating future business conditions. Yet, the forecasting can never be perfect, and entrepreneurs will continue to differ in the success of their judgments. If this were not so, no profits or losses would ever be made in business.

²There is, for example, not a hint of such knowledge in Haberler's well-known discussion. See Gottfried Haberler, *Prosperity and Depression* (2nd ed., Geneva, Switzerland: League of Nations, 1939).

Changes, then, take place continually in all spheres of the economy. Consumer tastes shift; time preferences and consequent proportions of investment and consumption change; the labor force changes in quantity, quality, and location; natural resources are discovered and others are used up; technological changes alter production possibilities; vagaries of climate alter crops, etc. All these changes are typical features of any economic system. In fact, we could not truly conceive of a changeless society, in which everyone did exactly the same things day after day, and no economic data ever changed. And even if we could conceive of such a society, it is doubtful whether many people would wish to bring it about.

It is, therefore, absurd to expect every business activity to be “stabilized” as if these changes were not taking place. To stabilize and “iron out” these fluctuations would, in effect, eradicate any rational productive activity. To take a simple, hypothetical case, suppose that a community is visited every seven years by the seven-year locust. Every seven years, therefore, many people launch preparations to deal with the locusts: produce anti-locust equipment, hire trained locust specialists, etc. Obviously, every seven years there is a “boom” in the locust-fighting industry, which, happily, is “depressed” the other six years. Would it help or harm matters if everyone decided to “stabilize” the locust-fighting industry by insisting on producing the machinery evenly every year, only to have it rust and become obsolete? Must people be forced to build machines before they want them; or to hire people before they are needed; or, conversely, to delay building machines they want—all in the name of “stabilization”? If people desire more autos and fewer houses than formerly, should they be forced to keep buying houses and be prevented from buying the autos, all for the sake of stabilization? As Dr. F.A. Harper has stated:

This sort of business fluctuation runs all through our daily lives. There is a violent fluctuation, for instance, in the harvest of strawberries at different times during the year. Should we grow enough strawberries in green-houses so as to stabilize that part of our economy throughout the year.³

³F.A. Harper, *Why Wages Rise* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1957), pp. 118–19.

We may, therefore, expect *specific* business fluctuations all the time. There is no need for any special “cycle theory” to account for them. They are simply the results of changes in economic data and are fully explained by economic theory. Many economists, however, attribute general business depression to “weaknesses” caused by a “depression in building” or a “farm depression.” But declines in specific industries can never ignite a general depression. Shifts in data will cause increases in activity in one field, declines in another. There is nothing here to account for a *general* business depression—a phenomenon of the true “business cycle.” Suppose, for example, that a shift in consumer tastes, and technologies, causes a shift in demand from farm products to *other* goods. It is pointless to say, as many people do, that a farm depression will ignite a general depression, because farmers will buy less goods, the people in industries selling to farmers will buy less, etc. This ignores the fact that people producing the *other* goods now favored by consumers will prosper; *their* demands will increase.

The problem of the business cycle is one of general boom and depression; it is not a problem of exploring specific industries and wondering what factors make each one of them relatively prosperous or depressed. Some economists—such as Warren and Pearson or Dewey and Dakin—have believed that there are no such things as general business fluctuations—that general movements are but the results of different cycles that take place, at different specific time-lengths, in the various economic activities. To the extent that such varying cycles (such as the 20-year “building cycle” or the seven-year locust cycle) may exist, however, they are irrelevant to a study of business cycles in *general* or to business depressions in particular. What we are trying to explain are *general* booms and busts in business.

In considering general movements in business, then, it is immediately evident that such movements must be transmitted through the general medium of exchange—money. Money forges the connecting link between all economic activities. If one price goes up and another down, we may conclude that demand has shifted from one industry to another; but if *all* prices move up or down together, some change must have occurred in the *monetary* sphere. Only

changes in the demand for, and/or the supply of, money will cause general price changes. An increase in the supply of money, the demand for money remaining the same, will cause a fall in the purchasing power of each dollar, i.e., a general rise in prices; conversely, a drop in the money supply will cause a general decline in prices. On the other hand, an increase in the general demand for money, the supply remaining given, will bring about a rise in the purchasing power of the dollar (a general fall in prices); while a fall in demand will lead to a general rise in prices. Changes in prices in general, then, are determined by changes in the supply of and demand for money. The supply of money consists of the stock of money existing in the society. The demand for money is, in the final analysis, the willingness of people to hold cash balances, and this can be expressed as eagerness to acquire money in exchange, and as eagerness to retain money in cash balance. The supply of goods in the economy is one component in the social demand for money; an increased supply of goods will, *other things being equal*, increase the demand for money and therefore tend to lower prices. Demand for money will tend to be lower when the purchasing power of the money-unit is higher, for then each dollar is more effective in cash balance. Conversely, a lower purchasing power (higher prices) means that each dollar is less effective, and more dollars will be needed to carry on the same work.

The purchasing power of the dollar, then, will remain constant when the stock of, and demand for, money are in equilibrium with each other: i.e., when people are willing to hold in their cash balances the exact amount of money in existence. If the demand for money exceeds the stock, the purchasing power of money will rise until the demand is no longer excessive and the market is cleared; conversely, a demand lower than supply will lower the purchasing power of the dollar, i.e., raise prices.

Yet, fluctuations in general business, in the “money relation,” do not by themselves provide the clue to the mysterious business cycle. It is true that any cycle in general business must be transmitted through this money relation: the relation between the stock of, and the demand for, money. But these changes in themselves explain little. If the money supply increases or demand falls, for

example, prices will rise; but why should this generate a “business cycle”? Specifically, why should it bring about a depression? The early business cycle theorists were correct in focusing their attention on the *crisis* and *depression*: for these are the phases that puzzle and shock economists and laymen alike, and these are the phases that most need to be explained.

THE PROBLEM: THE CLUSTER OF ERROR

The explanation of depressions, then, will not be found by referring to specific or even general business fluctuations *per se*. The main problem that a theory of depression must explain is: *why is there a sudden general cluster of business errors?* This is the first question for any cycle theory. Business activity moves along nicely with most business firms making handsome profits. Suddenly, without warning, conditions change and the bulk of business firms are experiencing losses; they are suddenly revealed to have made grievous errors in forecasting.

A general review of entrepreneurship is now in order. Entrepreneurs are largely in the business of forecasting. They must invest and pay costs in the present, in the expectation of recouping a profit by sale either to consumers or to other entrepreneurs further down in the economy's structure of production. The better entrepreneurs, with better judgment in forecasting consumer or other producer demands, make profits; the inefficient entrepreneurs suffer losses. The market, therefore, provides a training ground for the reward and expansion of successful, far-sighted entrepreneurs and the weeding out of inefficient businessmen. As a rule only some businessmen suffer losses at any one time; the bulk either break even or earn profits. How, then, do we explain the curious phenomenon of the crisis when almost all entrepreneurs suffer sudden losses? In short, how did all the country's astute businessmen come to make such errors together, and why were they all suddenly revealed at this particular time? This is the great problem of cycle theory.

It is not legitimate to reply that sudden changes in the data are responsible. It is, after all, the business of entrepreneurs to forecast

future changes, some of which are sudden. Why did their forecasts fail so abysmally?

Another common feature of the business cycle also calls for an explanation. It is the well-known fact that *capital-goods industries fluctuate more widely than do the consumer-goods industries*. The capital-goods industries—especially the industries supplying raw materials, construction, and equipment to other industries—expand much further in the boom, and are hit far more severely in the depression.

A third feature of every boom that needs explaining is the increase in the quantity of money in the economy. Conversely, there is generally, though not universally, a fall in the money supply during the depression.

THE EXPLANATION: BOOM AND DEPRESSION

In the purely free and unhampered market, there will be no cluster of errors, since trained entrepreneurs will not all make errors at the same time.⁴ The “boom-bust” cycle is generated by monetary intervention in the market, specifically bank credit expansion to business. Let us suppose an economy with a given supply of money. Some of the money is spent in consumption; the rest is saved and invested in a mighty structure of capital, in various orders of production. The proportion of consumption to saving or investment is determined by people’s *time preferences*—the degree to which they prefer present to future satisfactions. The less they prefer them in the present, the lower will their time preference

⁴Siegfried Budge, *Grundzüge der Theoretische Nationalökonomie* (Jena, 1925), quoted in Simon S. Kuznets, “Monetary Business Cycle Theory in Germany,” *Journal of Political Economy* (April, 1930): 127–28.

Under conditions of free competition . . . the market is . . . dependent upon supply and demand . . . there could [not] develop a disproportionality in the production of goods, which could draw in the whole economic system . . . such a disproportionality can arise only when, at some decisive point, the price structure does not base itself upon the play of only free competition, so that some arbitrary influence becomes possible.

Kuznets himself criticizes the Austrian theory from his empiricist, anti-cause and effect-standpoint, and also erroneously considers this theory to be “static.”

rate be, and the lower therefore will be the *pure interest rate*, which is determined by the time preferences of the individuals in society. A lower time-preference rate will be reflected in greater proportions of investment to consumption, a lengthening of the structure of production, and a building-up of capital. Higher time preferences, on the other hand, will be reflected in higher pure interest rates and a lower proportion of investment to consumption. The final market rates of interest reflect the pure interest rate plus or minus entrepreneurial risk and purchasing power components. Varying degrees of entrepreneurial risk bring about a *structure* of interest rates instead of a single uniform one, and purchasing-power components reflect changes in the purchasing power of the dollar, as well as in the specific position of an entrepreneur in relation to price changes. The crucial factor, however, is the pure interest rate. This interest rate first manifests itself in the “natural rate” or what is generally called the going “rate of profit.” This going rate is reflected in the interest rate on the loan market, a rate which is determined by the going profit rate.⁵

Now what happens when banks print new money (whether as bank notes or bank deposits) and lend it to business?⁶ The new money pours forth on the loan market and lowers the loan rate of interest. It *looks as if* the supply of saved funds for investment has increased, for the effect is the same: the supply of funds for investment apparently increases, and the interest rate is lowered. Businessmen, in short, are misled by the bank inflation into believing that the supply of saved funds is greater than it really is. Now, when saved funds increase, businessmen invest in “longer processes of production,” i.e., the capital structure is lengthened, especially in the “higher orders” most remote from the consumer.

⁵This is the “pure time preference theory” of the rate of interest; it can be found in Ludwig von Mises, *Human Action* (New Haven, Conn.: Yale University Press, 1949); in Frank A. Fetter, *Economic Principles* (New York: Century, 1915), and idem, “Interest Theories Old and New,” *American Economic Review* (March, 1914): 68–92.

⁶“Banks,” for many purposes, include also savings and loan associations, and life insurance companies, both of which create new money via credit expansion to business. See below for further discussion of the money and banking question.

Businessmen take their newly acquired funds and bid up the prices of capital and other producers' goods, and this stimulates a shift of investment from the "lower" (near the consumer) to the "higher" orders of production (furthest from the consumer)—from consumer goods to capital goods industries.⁷

If this were the effect of a genuine fall in time preferences and an increase in saving, all would be well and good, and the new lengthened structure of production could be indefinitely sustained. But this shift is the product of bank credit expansion. Soon the new money percolates downward from the business borrowers to the factors of production: in wages, rents, interest. Now, unless time preferences have changed, and there is no reason to think that they have, people will rush to spend the higher incomes in the *old* consumption–investment proportions. In short, people will rush to reestablish the old proportions, and demand will shift back from the higher to the lower orders. Capital goods industries will find that their investments have been in error: that what they thought profitable really fails for lack of demand by their entrepreneurial customers. Higher orders of production have turned out to be wasteful, and the malinvestment must be liquidated.

A favorite explanation of the crisis is that it stems from "under-consumption"—from a failure of consumer demand for goods at prices that could be profitable. But this runs contrary to the commonly known fact that it is *capital goods*, and not consumer goods, industries that really suffer in a depression. The failure is one of *entrepreneurial demand* for the higher order goods, and this in turn is caused by the shift of demand back to the old proportions.

In sum, businessmen were misled by bank credit inflation to invest too much in higher-order capital goods, which could only be prosperously sustained through lower time preferences and greater savings and investment; as soon as the inflation permeates to the mass

⁷ On the structure of production, and its relation to investment and bank credit, see F.A. Hayek, *Prices and Production* (2nd ed., London: Routledge and Kegan Paul, 1935); Mises, *Human Action*; and Eugen von Böhm-Bawerk, "Positive Theory of Capital," in *Capital and Interest* (South Holland, Ill.: Libertarian Press, 1959), vol. 2.

of the people, the old consumption–investment proportion is reestablished, and business investments in the higher orders are seen to have been wasteful.⁸ Businessmen were led to this error by the credit expansion and its tampering with the free-market rate of interest.

The “boom,” then, is actually a period of wasteful misinvestment. It is the time when errors are made, due to bank credit’s tampering with the free market. The “crisis” arrives when the consumers come to reestablish their desired proportions. The “depression” is actually the process by which the economy *adjusts* to the wastes and errors of the boom, and *reestablishes* efficient service of consumer desires. The adjustment process consists in rapid *liquidation* of the wasteful investments. Some of these will be abandoned altogether (like the Western ghost towns constructed in the boom of 1816–1818 and deserted during the Panic of 1819); others will be shifted to other uses. Always the principle will be not to mourn past errors, but to make most efficient use of the existing stock of capital. In sum, the free market tends to satisfy voluntarily-expressed consumer desires with maximum efficiency, and this includes the public’s relative desires for present and future consumption. The inflationary boom hobbles this efficiency, and distorts the structure of production, which no longer serves consumers properly. The crisis signals the end of this inflationary distortion, and the depression is the process by which the economy returns to the efficient service of consumers. In short, and this is a highly important point to grasp, the depression is the “recovery” process, and the end of the depression heralds the return to normal, and to optimum efficiency. The depression, then, far from being an evil scourge, is the *necessary* and beneficial return of the economy to normal after the distortions imposed by the boom. The boom, then, *requires* a “bust.”

Since it clearly takes very little time for the new money to filter down from business to factors of production, why don’t all booms come quickly to an end? The reason is that the banks come to the rescue. Seeing factors bid away from them by consumer goods

⁸“Inflation” is here defined as an *increase in the money supply not consisting of an increase in the money metal*.

industries, finding their costs rising and themselves short of funds, the borrowing firms turn once again to the banks. If the banks expand credit further, they can again keep the borrowers afloat. The new money again pours into business, and they can again bid factors away from the consumer goods industries. In short, continually expanded bank credit can keep the borrowers one step ahead of consumer retribution. For this, we have seen, is what the crisis and depression are: the restoration by consumers of an efficient economy, and the ending of the distortions of the boom. Clearly, the greater the credit expansion and the longer it lasts, the longer will the boom last. The boom will end when bank credit expansion finally stops. Evidently, the longer the boom goes on the more wasteful the errors committed, and the longer and more severe will be the necessary depression readjustment.

Thus, bank credit expansion sets into motion the business cycle in all its phases: the inflationary boom, marked by expansion of the money supply and by malinvestment; the crisis, which arrives when credit expansion ceases and malinvestments become evident; and the depression recovery, the necessary adjustment process by which the economy returns to the most efficient ways of satisfying consumer desires.⁹

What, specifically, are the essential features of the depression-recovery phase? Wasteful projects, as we have said, must either be abandoned or used as best they can be. Inefficient firms, buoyed up by the artificial boom, must be liquidated or have their debts scaled down or be turned over to their creditors. Prices of producers' goods must fall, particularly in the higher orders of production—this includes capital goods, lands, and wage rates. Just as the boom was marked by a fall in the rate of interest, i.e., of price differentials between stages of production (the “natural rate” or going rate of

⁹This “Austrian” cycle theory settles the ancient economic controversy on whether or not changes in the quantity of money can affect the rate of interest. It supports the “modern” doctrine that an increase in the quantity of money lowers the rate of interest (if it first enters the loan market); on the other hand, it supports the classical view that, in the long run, quantity of money does not affect the interest rate (or can only do so if time preferences change). In fact, the depression-readjustment is the market's return to the desired free-market rate of interest.

profit) as well as the loan rate, so the depression-recovery consists of a rise in this interest differential. In practice, this means a fall in the prices of the higher-order goods relative to prices in the consumer goods industries. Not only prices of particular machines must fall, but also the prices of whole aggregates of capital, e.g., stock market and real estate values. In fact, these values must fall more than the earnings from the assets, through reflecting the general rise in the rate of interest return.

Since factors must shift from the higher to the lower orders of production, there is inevitable "frictional" unemployment in a depression, but it need not be greater than unemployment attending any other large shift in production. In practice, unemployment will be aggravated by the numerous bankruptcies, and the large errors revealed, but it still need only be temporary. The speedier the adjustment, the more fleeting will the unemployment be. Unemployment will progress beyond the "frictional" stage and become really severe and lasting only if wage rates are kept artificially high and are prevented from falling. If wage rates are kept above the free-market level that clears the demand for and supply of labor, laborers will remain permanently unemployed. The greater the degree of discrepancy, the more severe will the unemployment be.

SECONDARY FEATURES OF DEPRESSION: DEFLATIONARY CREDIT CONTRACTION

The above are the essential features of a depression. Other secondary features may also develop. There is no need, for example, for *deflation* (lowering of the money supply) during a depression. The depression phase begins with the end of inflation, and can proceed without any further changes from the side of money. Deflation has almost always set in, however. In the first place, the inflation took place as an expansion of bank credit; now, the financial difficulties and bankruptcies among borrowers cause banks to pull in their horns and contract credit.¹⁰ Under the gold standard,

¹⁰It is often maintained that since business firms can find few profitable opportunities in a depression, business demand for loans falls off, and hence loans

banks have another reason for contracting credit—if they had ended inflation because of a gold drain to foreign countries. The threat of this drain forces them to contract their outstanding loans. Furthermore the rash of business failures may cause questions to be raised about the banks; and banks, being inherently bankrupt anyway, can ill afford such questions.¹¹ Hence, the money supply will contract because of actual bank runs, and because banks will tighten their position in fear of such runs.

Another common secondary feature of depressions is *an increase in the demand for money*. This “scramble for liquidity” is the result of several factors: (1) people expect falling prices, due to the depression and deflation, and will therefore hold more money and spend less on goods, awaiting the price fall; (2) borrowers will try to pay off their debts, now being called by banks and by business creditors, by liquidating other assets in exchange for money; (3) the rash of business losses and bankruptcies makes businessmen cautious about investing until the liquidation process is over.

With the supply of money falling, and the demand for money increasing, *generally falling prices* are a consequent feature of most

and money supply will contract. But this argument overlooks the fact that the banks, if they want to, can purchase securities, and thereby sustain the money supply by increasing their investments to compensate for dwindling loans. Contractionist pressure therefore always stems from banks and not from business borrowers.

¹¹Banks are “inherently bankrupt” because they issue far more warehouse receipts to cash (nowadays in the form of “deposits” redeemable in cash on demand) than they have cash available. Hence, they are always vulnerable to bank runs. These runs are not like any other business failures, because they simply consist of depositors claiming their own rightful property, which the banks do not have. “Inherent bankruptcy,” then, is an essential feature of any “fractional reserve” banking system. As Frank Graham stated:

The attempt of the banks to realize the inconsistent aims of lending cash, or merely multiplied claims to cash, and still to represent that cash is available on demand is even more preposterous than . . . eating one's cake and counting on it for future consumption. . . . The alleged convertibility is a delusion dependent upon the right's not being unduly exercised.

Frank D. Graham, “Partial Reserve Money and the 100% Proposal,” *American Economic Review* (September, 1936): 436.

depressions. A general price fall, however, is caused by the secondary, rather than by the inherent, features of depressions. Almost all economists, even those who see that the depression adjustment process should be permitted to function unhampered, take a very gloomy view of the secondary deflation and price fall, and assert that they unnecessarily aggravate the severity of depressions. This view, however, is incorrect. These processes not only do not aggravate the depression, they have positively beneficial effects.

There is, for example, no warrant whatever for the common hostility toward "hoarding." There is no criterion, first of all, to define "hoarding"; the charge inevitably boils down to mean that A thinks that B is keeping more cash balances than A deems appropriate for B. Certainly there is no objective criterion to decide when an increase in cash balance becomes a "hoard." Second, we have seen that the demand for money increases as a result of certain needs and values of the people; in a depression, fears of business liquidation and expectations of price declines particularly spur this rise. By what standards can these valuations be called "illegitimate"? A general price fall is the way that an increase in the demand for money can be satisfied; for lower prices mean that the same total cash balances have greater effectiveness, greater "real" command over goods and services. In short, the desire for increased real cash balances has now been satisfied.

Furthermore, the demand for money will decline again as soon as the liquidation and adjustment processes are finished. For the completion of liquidation removes the uncertainties of impending bankruptcy and ends the borrowers' scramble for cash. A rapid unhampered fall in prices, both in general (adjusting to the changed money-relation), and particularly in goods of higher orders (adjusting to the malinvestments of the boom) will speedily end the realignment processes and remove expectations of further declines. Thus, the sooner the various adjustments, primary and secondary, are carried out, the sooner will the demand for money fall once again. This, of course, is just one part of the general economic "return to normal."

Neither does the increased "hoarding" nor the fall of prices at all interfere with the primary depression-adjustment. The important

feature of the primary adjustment is that the prices of producers' goods fall more rapidly than do consumer good prices (or, more accurately, that higher order prices *fall more rapidly* than do those of lower order goods); it does not interfere with the primary adjustment if all prices are falling to some degree. It is, moreover, a common myth among laymen and economists alike, that falling prices have a depressing effect on business. This is not necessarily true. What matters for business is not the general behavior of prices, but the price differentials between selling prices and costs (the "natural rate of interest"). If wage rates, for example, fall more rapidly than product prices, this stimulates business activity and employment.

Deflation of the money supply (*via* credit contraction) has fared as badly as hoarding in the eyes of economists. Even the Misesian theorists deplore deflation and have seen no benefits accruing from it.¹² Yet, deflationary credit contraction greatly *helps* to speed up the adjustment process, and hence the completion of business recovery, in ways as yet unrecognized. The adjustment consists, as we know, of a return to the desired consumption-saving pattern. Less adjustment is needed, however, if time preferences *themselves* change: i.e., if *savings* increase and consumption relatively declines. In short, what can help a depression is not more consumption, but, on the contrary, less consumption and more *savings* (and, concomitantly, more investment). Falling prices encourage greater savings and decreased consumption by fostering an accounting illusion. Business accounting records the value of assets at their original cost. It is well known that general price increases distort the accounting-record: what seems to be a large "profit" may only be just sufficient to replace the now higher-priced assets. During an inflation, therefore, business "profits" are greatly overstated, and consumption is greater than it would be if the accounting illusion were not operating—perhaps capital is even consumed without the individual's knowledge. In a time of deflation, the accounting illusion is reversed: what seem like losses and capital consumption,

¹²In a gold standard country (such as America during the 1929 depression), Austrian economists accepted credit contraction as a perhaps necessary price to pay for remaining on gold. But few saw any remedial virtues in the deflation process itself.

may actually mean profits for the firm, since assets now cost much less to be replaced. This overstatement of losses, however, restricts consumption and encourages saving; a man may merely think he is replacing capital, when he is actually making an added investment in the business.

Credit contraction will have another beneficial effect in promoting recovery. For bank credit expansion, we have seen, distorts the free market by lowering price differentials (the “natural rate of interest” or going rate of profit) on the market. Credit contraction, on the other hand, distorts the free market in the reverse direction. Deflationary credit contraction’s first effect is to lower the money supply in the hands of business, particularly in the higher stages of production. This reduces the demand for factors in the higher stages, lowers factor prices and incomes, and increases price differentials and the interest rate. It *spurs* the shift of factors, in short, from the higher to the lower stages. But this means that credit contraction, when it follows upon credit expansion, speeds the market’s adjustment process. Credit contraction returns the economy to free-market proportions much sooner than otherwise.

But, it may be objected, may not credit contraction overcompensate the errors of the boom and itself cause distortions that need correction? It is true that credit contraction may overcompensate, and, while contraction proceeds, it may cause interest rates to be higher than free-market levels, and investment lower than in the free market. But since contraction causes no positive *mal*-investments, it will not lead to any painful period of depression and adjustment. If businessmen are misled into thinking that less capital is available for investment than is really the case, no lasting damage in the form of wasted investments will ensue.¹³ Furthermore, in

¹³Some readers may ask: why doesn’t credit contraction lead to malinvestment, by causing overinvestment in lower-order goods and underinvestment in higher-order goods, thus reversing the consequences of credit expansion? The answer stems from the Austrian analysis of the structure of production. There is no arbitrary choice of investing in lower or higher-order goods. Any increased investment *must* be made in the higher-order goods, must lengthen the structure of production. A decreased amount of investment in the economy simply reduces higher-order capital. Thus, credit contraction will cause *not* excess of investment

the nature of things, credit contraction is severely limited—it cannot progress beyond the extent of the preceding inflation.¹⁴ Credit expansion faces no such limit.

GOVERNMENT DEPRESSION POLICY: LAISSEZ-FAIRE

If government wishes to see a depression ended as quickly as possible, and the economy returned to normal prosperity, what course should it adopt? The first and clearest injunction is: *don't interfere with the market's adjustment process*. The more the government intervenes to delay the market's adjustment, the longer and more grueling the depression will be, and the more difficult will be the road to complete recovery. Government hampering aggravates and perpetuates the depression. Yet, government depression policy has always (and would have even more today) aggravated the very evils it has loudly tried to cure. If, in fact, we list logically the various ways that government could *hamper* market adjustment, we will find that we have precisely listed the favorite “anti-depression” arsenal of government policy. Thus, here are the ways the adjustment process can be hobbled:

(1) *Prevent or delay liquidation*. Lend money to shaky businesses, call on banks to lend further, etc.

(2) *Inflate further*. Further inflation blocks the necessary fall in prices, thus delaying adjustment and prolonging depression. Further credit expansion creates more malinvestments, which, in their turn, will have to be liquidated in some later depression. A government “easy money” policy prevents the market's return to the necessary higher interest rates.

(3) *Keep wage rates up*. Artificial maintenance of wage rates in a depression insures permanent mass unemployment. Furthermore, in a deflation, when prices are falling, keeping the same rate of

in the lower orders, but simply a shorter structure than would otherwise have been established.

¹⁴In a gold standard economy, credit contraction is limited by the total size of the gold stock.

money wages means that real wage rates have been pushed higher. In the face of falling business demand, this greatly aggravates the unemployment problem.

(4) *Keep prices up.* Keeping prices above their free-market levels will create unsalable surpluses, and prevent a return to prosperity.

(5) *Stimulate consumption and discourage saving.* We have seen that more saving and less consumption would speed recovery; more consumption and less saving aggravate the shortage of saved-capital even further. Government can encourage consumption by “food stamp plans” and relief payments. It can discourage savings and investment by higher taxes, particularly on the wealthy and on corporations and estates. As a matter of fact, any increase of taxes and government spending will discourage saving and investment and stimulate consumption, since government spending is *all consumption*. Some of the private funds would have been saved and invested; *all* of the government funds are consumed.¹⁵ Any increase in the relative size of government in the economy, therefore, shifts the societal consumption–investment ratio in favor of consumption, and prolongs the depression.

(6) *Subsidize unemployment.* Any subsidization of unemployment (via unemployment “insurance,” relief, etc.) will prolong unemployment indefinitely, and delay the shift of workers to the fields where jobs are available.

¹⁵In recent years, particularly in the literature on the “under-developed countries,” there has been a great deal of discussion of government “investment.” There can be no such investment, however. “Investment” is defined as expenditures made not for the direct satisfaction of those who make it, but for other, ultimate consumers. Machines are produced not to serve the entrepreneur, but to serve the ultimate consumers, who in turn remunerate the entrepreneurs. But government acquires its funds by seizing them from private individuals; the spending of the funds, therefore, gratifies the desires of *government officials*. Government officials have forcibly shifted production from satisfying private consumers to satisfying themselves; their spending is therefore pure consumption and can by no stretch of the term be called “investment.” (Of course, to the extent that government officials do not realize this, their “consumption” is really *waste-spending*.)

These, then, are the measures which will delay the recovery process and aggravate the depression. Yet, they are the time-honored favorites of government policy, and, as we shall see, they were the policies adopted in the 1929–1933 depression, by a government known to many historians as a “laissez-faire” administration.

Since deflation also speeds recovery, the government should encourage, rather than interfere with, a credit contraction. In a gold-standard economy, such as we had in 1929, blocking deflation has further unfortunate consequences. For a deflation increases the reserve ratios of the banking system, and generates more confidence in citizen and foreigner alike that the gold standard will be retained. Fear for the gold standard will precipitate the very bank runs that the government is anxious to avoid. There are other values in deflation, even in bank runs, which should not be overlooked. Banks should no more be exempt from paying their obligations than is any other business. Any interference with their comeuppance via bank runs will establish banks as a specially privileged group, not obligated to pay their debts, and will lead to later inflations, credit expansions, and depressions. And if, as we contend, banks are inherently bankrupt and “runs” simply reveal that bankruptcy, it is beneficial for the economy for the banking system to be reformed, once and for all, by a thorough purge of the fractional-reserve banking system. Such a purge would bring home forcefully to the public the dangers of fractional-reserve banking, and, more than any academic theorizing, insure against such banking evils in the future.¹⁶

The most important canon of sound government policy in a depression, then, is to keep itself from interfering in the adjustment process. Can it do anything more positive to aid the adjustment? Some economists have advocated a government-decreed wage cut to spur employment, e.g., a 10 percent across-the-board reduction. But free-market adjustment is the reverse of any “across-the-board” policy. Not all wages need to be cut; the degree of required adjustments of prices and wages differs from case to

¹⁶For more on the problems of fractional-reserve banking, see below.

case, and can only be determined on the processes of the free and unhampered market.¹⁷ Government intervention can only distort the market further.

There is one thing the government can do positively, however: it can drastically *lower* its relative role in the economy, slashing its own expenditures and taxes, particularly taxes that interfere with saving and investment. Reducing its tax-spending level will automatically shift the societal saving-investment-consumption ratio in favor of saving and investment, thus greatly lowering the time required for returning to a prosperous economy.¹⁸ Reducing taxes that bear most heavily on savings and investment will further lower social time preferences.¹⁹ Furthermore, depression is a time of economic strain. Any reduction of taxes, or of any regulations interfering with the free market, will stimulate healthy economic activity; any increase in taxes or other intervention will depress the economy further.

In sum, the proper governmental policy in a depression is strict laissez-faire, including stringent budget slashing, and coupled perhaps with positive encouragement for credit contraction. For

¹⁷See W.H. Hutt, "The Significance of Price Flexibility," in Henry Hazlitt, ed., *The Critics of Keynesian Economics* (Princeton, N.J.: D. Van Nostrand, 1960), pp. 390–92.

¹⁸I am indebted to Mr. Rae C. Heiple, II, for pointing this out to me.

¹⁹Could government increase the investment-consumption ratio by *raising* taxes in any way? It could not tax *only* consumption even if it tried; it can be shown (and Prof. Harry Gunnison Brown has gone a long way to show) that any ostensible tax on "consumption" becomes, on the market, a tax on incomes, hurting saving as well as consumption. If we assume that the poor consume a greater proportion of their income than the rich, we might say that a tax on the poor used to subsidize the rich will raise the saving-consumption ratio and thereby help cure a depression. On the other hand, the poor do not necessarily have higher time preferences than the rich, and the rich might well treat government subsidies as special windfalls to be consumed. Furthermore, Harold Lubell has maintained that the effects of a *change* in income distribution on social consumption would be negligible, even though the absolute proportion of consumption is greater among the poor. See Harry Gunnison Brown, "The Incidence of a General Output or a General Sales Tax," *Journal of Political Economy* (April, 1939): 254–62; Harold Lubell, "Effects of Redistribution of Income on Consumers' Expenditures," *American Economic Review* (March, 1947): 157–70.

decades such a program has been labelled “ignorant,” “reactionary,” or “Neanderthal” by conventional economists. On the contrary, it is the policy clearly dictated by economic science to those who wish to end the depression as quickly and as cleanly as possible.²⁰

It might be objected that depression only began when credit expansion ceased. Why shouldn’t the government continue credit expansion indefinitely? In the first place, the longer the inflationary boom continues, the more painful and severe will be the necessary adjustment process. Second, the boom cannot continue indefinitely, because eventually the public awakens to the governmental policy of permanent inflation, and flees from money into goods, making its purchases while the dollar is worth more than it will be in future. The result will be a “runaway” or *hyperinflation*, so familiar to history, and particularly to the modern world.²¹ Hyperinflation, on any count, is far worse than any depression: it destroys the currency—the lifeblood of the economy; it ruins and shatters the middle class and all “fixed income groups”; it wreaks havoc unbounded. And furthermore, it leads finally to unemployment and lower living standards, since there is little point in working when earned income depreciates by the hour. More time is spent hunting goods to buy. To avoid such a calamity, then, credit expansion must stop sometime, and this will bring a depression into being.

PREVENTING DEPRESSIONS

Preventing a depression is clearly better than having to suffer it. If the government’s proper policy during a depression is *laissez-faire*, what should it do to prevent a depression from beginning?

²⁰Advocacy of any governmental policy must rest, in the final analysis, on a system of ethical principles. We do not attempt to discuss ethics in this book. Those who wish to prolong a depression, for whatever reason, will, of course, enthusiastically support these government interventions, as will those whose prime aim is the accretion of power in the hands of the state.

²¹For the classic treatment of hyperinflation, see Costantino Bresciani-Turroni, *The Economics of Inflation* (London: George Allen and Unwin, 1937).

Obviously, since credit expansion necessarily sows the seeds of later depression, the proper course for the government is to stop any inflationary credit expansion from getting under way. This is not a very difficult injunction, for government's most important task is to *keep itself* from generating inflation. For government is an *inherently inflationary institution*, and consequently has almost always triggered, encouraged, and directed the inflationary boom. Government is inherently inflationary because it has, over the centuries, acquired control over the monetary system. Having the power to print money (including the "printing" of bank deposits) gives it the power to tap a ready source of revenue. Inflation is a form of taxation, since the government can create new money out of thin air and use it to bid away resources from private individuals, who are barred by heavy penalty from similar "counterfeiting." Inflation therefore makes a pleasant substitute for taxation for the government officials and their favored groups, and it is a subtle substitute which the general public can easily—and can be encouraged to—overlook. The government can also pin the blame for the rising prices, which are the inevitable consequence of inflation, upon the general public or some disliked segments of the public, e.g., business, speculators, foreigners. Only the unlikely adoption of sound economic doctrine could lead the public to pin the responsibility where it belongs: on the government itself.

Private banks, it is true, can themselves inflate the money supply by issuing more claims to standard money (whether gold or government paper) than they could possibly redeem. A bank deposit is equivalent to a warehouse receipt for cash, a receipt which the bank pledges to redeem at any time the customer wishes to take his money out of the bank's vaults. The whole system of "fractional-reserve banking" involves the issuance of receipts which cannot possibly be redeemed. But Mises has shown that, by themselves, private banks could not inflate the money supply by a great deal.²² In the first place, each bank would find its newly

²²See Mises, *Human Action*, pp. 429–45, and *Theory of Money and Credit* (New Haven, Conn.: Yale University Press, 1953).

issued *uncovered*, or “pseudo,” receipts (uncovered by cash) soon transferred to the clients of other banks, who would call on the bank for redemption. The narrower the clientele of each bank, then, the less scope for its issue of pseudo-receipts. All the banks could join together and agree to expand at the same rate, but such agreement would be difficult to achieve. Second, the banks would be limited by the degree to which the public used bank deposits or notes as against standard cash; and third, they would be limited by the confidence of the clients in their banks, which could be wrecked by runs at any time.

Instead of preventing inflation by prohibiting fractional-reserve banking as fraudulent, governments have uniformly moved in the opposite direction, and have step-by-step removed these free-market checks to bank credit expansion, at the same time putting themselves in a position to direct the inflation. In various ways, they have artificially bolstered public confidence in the banks, encouraged public use of paper and deposits instead of gold (finally outlawing gold), and shepherded all the banks under one roof so that they can all expand together. The main device for accomplishing these aims has been Central Banking, an institution which America finally acquired as the Federal Reserve System in 1913. Central Banking permitted the centralization and absorption of gold into government vaults, greatly enlarging the national base for credit expansion;²³ it also insured uniform action by the banks through basing their reserves on deposit accounts at the Central Bank instead of on gold. Upon establishment of a Central Bank, each private bank no longer gauges its policy according to its particular gold reserve; all banks are now tied together and regulated by Central Bank action. The Central Bank, furthermore, by proclaiming its function to be a “lender of last resort” to banks in trouble, enormously increases public confidence in the banking system.

²³When gold—formerly the banks’ reserves—is transferred to a newly established Central Bank, the latter keeps only a fractional reserve, and thus the total credit base and potential monetary supply are enlarged. See C.A. Phillips, T.F. McManus, and R.W. Nelson, *Banking and the Business Cycle* (New York: Macmillan, 1937), pp. 24ff.

For it is tacitly assumed by everyone that the government would never permit its own organ—the Central Bank—to fail. A Central Bank, even when on the gold standard, has little need to worry about demands for gold from its own citizens. Only possible drains of gold to foreign countries (i.e., by non-clients of the Central Bank) may cause worry.

The government assured Federal Reserve control over the banks by (1) granting to the Federal Reserve System (FRS) a monopoly over note issue; (2) compelling all the existing “national banks” to join the Federal Reserve System, and to keep all their legal reserves as deposits at the Federal Reserve²⁴; and (3) fixing the minimum reserve ratio of deposits at the Reserve to bank deposits (money owned by the public). The establishment of the FRS was furthermore inflationary in directly reducing existing reserve-ratio requirements.²⁵ The Reserve could then control the volume of money by governing two things: the volume of bank reserves, and the legal reserve requirements. The Reserve can govern the volume of bank reserves (in ways which will be explained below), and the government sets the legal ratio, but admittedly control over the money supply is not perfect, as banks can keep “excess reserves.” Normally, however, reassured by the existence of a lender of last resort, and making profits by maximizing its assets and deposits, a bank will keep fully “loaned up” to its legal ratio.

While unregulated private banking would be checked within narrow limits and would be far less inflationary than Central Bank

²⁴Many “state banks” were induced to join the FRS by patriotic appeals and offers of free services. Even the banks that did not join, however, are effectively controlled by the System, for, in order to obtain paper money, they must keep reserves in some member bank.

²⁵The average reserve requirements of all banks before 1913 was estimated at approximately 21 percent. By mid-1917, when the FRS had fully taken shape, the average required ratio was 10 percent. Phillips et al. estimate that the inherent inflationary impact of the FRS (pointed out in footnote 23) increased the expansive power of the banking system three-fold. Thus, the two factors (the inherent impact, and the deliberate lowering of reserve requirements) combined to inflate the monetary potential of the American banking system six-fold as a result of the inauguration of the FRS. See Phillips, et al., *Banking and the Business Cycle*, pp. 23ff.

manipulation,²⁶ the clearest way of preventing inflation is to outlaw fractional-reserve banking, and to impose a 100 percent gold reserve to all notes and deposits. Bank cartels, for example, are not very likely under unregulated, or “free” banking, but they could nevertheless occur. Professor Mises, while recognizing the superior economic merits of 100 percent gold money to free banking, prefers the latter because 100 percent reserves would concede to the government control over banking, and government could easily change these requirements to conform to its inflationist bias.²⁷ But a 100 percent gold reserve requirement would not be just another administrative control by government; it would be part and parcel of the general libertarian legal prohibition against fraud. Everyone except absolute pacifists concedes that violence against person and property should be outlawed, and that agencies, operating under this general law, should defend person and property against attack. Libertarians, advocates of laissez-faire, believe that “governments” should confine themselves to being defense agencies only. Fraud is equivalent to theft, for fraud is committed when one part of an exchange contract is deliberately not fulfilled after the other’s property has been taken. Banks that issue receipts to non-existent gold are really committing fraud, because it is then impossible for all property owners (of claims to gold) to claim their rightful property. Therefore, prohibition of such practices would not be an act of government *intervention* in the free market; it would be part of the general legal *defense* of property against attack which a free market requires.^{28, 29}

²⁶The horrors of “wildcat banking” in America before the Civil War stemmed from two factors, both due to government rather than free banking: (1) Since the beginnings of banking, in 1814 and then in every ensuing panic, state governments permitted banks to continue operating, making and calling loans, etc. without having to redeem in specie. In short, banks were privileged to operate without paying their obligations. (2) Prohibitions on interstate branch banking (which still exist), coupled with poor transportation, prevented banks from promptly calling on distant banks for redemption of notes.

²⁷Mises, *Human Action*, p. 440.

²⁸A common analogy states that banks simply count on people not redeeming all their property at once, and that engineers who build bridges operate also on

What, then, was the proper government policy during the 1920s? What should government have done to prevent the crash? Its best policy would have been to liquidate the Federal Reserve System, and to erect a 100 percent gold reserve money; failing that, it should have liquidated the FRS and left private banks unregulated, but subject to prompt, rigorous bankruptcy upon failure to redeem their notes and deposits. Failing these drastic measures, and given the existence of the Federal Reserve System, what should its policy have been? The government should have exercised full vigilance in not supporting or permitting any inflationary credit expansion. We have seen that the Fed—the Federal Reserve System—does not have complete control over money because it cannot force banks to lend up to their reserves; but it does have absolute anti-inflationary control over the banking system. For it does have the power to reduce bank reserves at will, and thereby force the banks to cease inflating, or even to contract if necessary. By lowering the volume of bank reserves and/or raising reserve requirements, the federal government, in the 1920s as well as today, has had the absolute power to prevent any increase in the total volume of money and credit. It is true that the FRS has no direct control over such money creators as savings banks, savings and loan associations, and life insurance companies, but any credit

the principle that not everyone in a city will wish to cross the bridge at once. But the cases are entirely different. The people crossing a bridge are simply requesting a service; *they are not trying to take possession of their lawful property*, as are the bank depositors. A more fitting analogy would defend embezzlers who would never have been caught if someone hadn't fortuitously inspected the books. The crime comes when the theft or fraud is *committed*, not when it is finally revealed.

²⁹Perhaps a libertarian legal system would consider “general deposit warrants” (which allow a warehouse to return any homogeneous good to the depositor) as “specific deposit warrants,” which, like bills of lading, pawn tickets, dock warrants, etc. establish ownership to specific, earmarked objects. As Jevons stated, “It used to be held as a general rule of law, that any present grant or assignment of goods not in existence is without operation.” See W. Stanley Jevons, *Money and the Mechanism of Exchange* (London: Kegan Paul, 1905), pp. 207–12. For an excellent discussion of the problems of a fractional-reserve money, see Amasa Walker, *The Science of Wealth* (3rd ed., Boston: Little, Brown, 1867), pp. 126–32, esp. pp. 139–41.

expansion from these sources could be offset by deflationary pressure upon the commercial banks. This is especially true because commercial bank deposits (1) form the monetary base for the credit extended by the other financial institutions, and (2) are the most actively circulating part of the money supply. Given the Federal Reserve System and its absolute power over the nation's money, the federal government, since 1913, must bear the complete responsibility for any inflation. The banks cannot inflate on their own; any credit expansion can only take place with the support and acquiescence of the federal government and its Federal Reserve authorities. The banks are virtual pawns of the government, and have been since 1913. Any guilt for credit expansion and the consequent depression must be borne by the federal government and by it alone.³⁰

PROBLEMS IN THE AUSTRIAN THEORY OF THE TRADE CYCLE

The "Assumption" of Full Employment

Before proceeding to discuss alternative business cycle theories, several problems and time-honored misconceptions should be cleared up. Two standard misconceptions have already been refuted by Professor Mises: (1) that the Austrian theory "assumes" the previous existence of "full employment," and therefore does not apply if the credit expansion begins while there are unemployed factors, and (2) that the theory describes the boom as a period of "overinvestment." On the first point, the unemployed factors can either be labor or capital-goods. (There will always be unemployed, submarginal, *land* available.) Inflation will only put unemployed labor factors to work if their owners, though otherwise

³⁰Some writers make a great to-do over the legal fiction that the Federal Reserve System is "owned" by its member banks. In practice, this simply means that these banks are taxed to help pay for the support of the Federal Reserve. If the private banks really "own" the Fed, then how can its officials be appointed by the government, and the "owners" compelled to "own" the Federal Reserve Board by force of government statute? The Federal Reserve Banks should simply be regarded as governmental agencies.

are not proportionately distributed; on the contrary, the new \$5 million goes first to the government. Then next to the relatives of officials, then to whomever sells goods and services to those relatives, and so on.

If the government falls prey to the temptation of printing a great deal of new money, not only will prices go up, but the "quality" of the money will become suspect in that society, and the lack of redeemability in gold may lead the market to accelerated discounting of that money in terms of gold. And if the money is not at all redeemable in gold, the rate of discount will accelerate further. In the American Revolution, the Continental Congress issued a great amount of non-redeemable paper dollars, which soon discounted radically, and in a few years, fell to such an enormous discount that they became literally worthless and disappeared from circulation. The common phrase "Not worth a Continental" became part of American folklore as a result of this runaway depreciation and accelerated worthlessness of the Continental dollars.

Loan Banking

Government paper, as pernicious as it may be, is a relatively straightforward form of counterfeiting. The public can understand the concept of "printing dollars" and spending them, and they can understand why such a flood of dollars will come to be worth a great deal less than gold, or than uninflated paper, of the same denomination, whether "dollar," "franc," or "mark." Far more difficult to grasp, however, and therefore far more insidious, are the nature and consequences of "fractional-reserve banking," a more subtle and

modern form of counterfeiting. It is not difficult to see the consequences of a society awash in a flood of new paper money; but it is far more difficult to envision the results of an expansion of intangible bank credit.

One of the great problems in analyzing banking is that the word “bank” comprises several very different and even contradictory functions and operations. The ambiguity in the concept of “bank” can cover a multitude of sins. A bank, for example, can be considered “any institution that makes loans.” The earliest “loan banks” were merchants who, in the natural course of trade, carried their customers by means of short-term credit, charging interest for the loans. The earliest bankers were “merchant-bankers,” who began as merchants, and who, if they were successful at productive lending, gradually grew, like the great families the Riccis and the Medicis in Renaissance Italy, to become more bankers than merchants. It should be clear that these loans involved no inflationary creation of money. If the Medicis sold goods for 10 gold ounces and allowed their customers to pay in six months, including an interest premium, the total money supply was in no way increased. The Medici customers, instead of paying for the goods immediately, wait for several months, and then pay gold or silver with an additional fee for delay of payment.

This sort of loan banking is non-inflationary regardless of what the standard money is in the society, whether it be gold or government paper. Thus, suppose that in present-day America I set up a Rothbard Loan Bank. I save up \$10,000 in cash and invest it as an asset of this new bank. My balance sheet, see Figure 1, which has assets on the left-hand side of

a T-account, and the ownership of or claim to those assets on the right-hand side, the sum of which must be equal, now looks as follows:

Figure 1 A Bank Loan Begins	
Rothbard Loan Bank	
Assets	Equity + Liabilities
Cash: \$10,000	Owned by Rothbard: \$10,000
Total: \$10,000	Total: \$10,000

The bank is now ready for business; the \$10,000 of cash assets is owned by myself.

Suppose, then, that \$9,000 is loaned out to Joe at interest. The balance sheet will now look as follows in Figure 2.

The increased assets come from the extra \$500 due as interest. The important point here is that money, whether it be gold or other standard forms of cash, has in no way increased; cash was saved up by me, loaned to Joe, who will then spend it, return it to me plus interest in the future, etc. The crucial point is that none of this banking has been inflationary, fraudulent, or counterfeit in any way. It has all been a normal, productive, entrepreneurial business

Figure 2
The Bank Makes Loans

Assets	Equity + Liabilities
Cash: \$1,000 IOU from Joe: \$9,500	Owned by Rothbard: \$10,500
Total: \$10,500	Total: \$10,500

transaction. If Joe becomes insolvent and cannot repay, that would be a normal business or entrepreneurial failure.

If the Rothbard Bank, enjoying success, should expand the number of partners, or even incorporate to attract more capital, the business would expand, but the nature of this loan bank would remain the same; again, there would be nothing inflationary or fraudulent about its operations.

So far, we have the loan bank investing its own equity in its operations. Most people, however, think of "banks" as borrowing money from one set of people, and relending their money to another set, charging an interest differential because of its expertise in lending, in channeling capital to productive businesses. How would this sort of borrow-and-lend bank operate?

Let us take the Rothbard Loan Bank, as shown in Figure 3, and assume that the Bank borrows money from the public in the form of Certificates of Deposit (CDs), repayable in six months or a year. Then, abstracting from the interest

involved, and assuming the Rothbard Bank floats \$40,000 of CDs, and relends them, we will get a balance sheet as follows:

Figure 3
The Loan Bank Borrows Money

Assets	Equity + Liabilities
Cash: \$1,000	Owed in CDs: \$40,000
IOUs: \$49,500	Owed by Rothbard: \$10,500
Total: \$50,500	Total: \$50,500

Again, the important point is that the bank has grown, has borrowed and reloaned, and there has been no inflationary creation of new money, no fraudulent activity, and no counterfeiting. If the Rothbard Bank makes a bad loan, and becomes insolvent, then that is a normal entrepreneurial error. So far, loan banking has been a perfectly legitimate and productive activity.

Deposit Banking

We get closer to the nub of the problem when we realize that, historically, there has existed a very different type of “bank” that has no necessary logical connection, although it often had a practical connection, with loan banking. Gold coins are often heavy, difficult to carry around, and subject to risk of loss or theft. People began to “deposit” coins, as well as gold

or silver bullion, into institutions for safekeeping. This function may be thought of as a “money-warehouse.” As in the case of any other warehouse, the warehouse issues the depositor a receipt, a paper ticket pledging that the article will be redeemed at any time “on demand,” that is, on presentation of the receipt. The receipt-holder, on presenting the ticket, pays a storage fee, and the warehouse returns the item.

The first thing to be said about this sort of deposit is that it would be very peculiar to say that the warehouse “owed” the depositor the chair or watch he had placed in its care, that the warehouse is the “debtor” and the depositor the “creditor.” Suppose, for example, that you own a precious chair and that you place it in a warehouse for safekeeping over the summer. You return in the fall and the warehouseman says, “Gee, sorry, sir, but I’ve had business setbacks in the last few months, and I am not able to pay you the debt (the chair) that I owe you.” Would you shrug your shoulders, and write the whole thing off as a “bad debt,” as an unwise entrepreneurial decision on the part of the warehouseman? Certainly not. You would be properly indignant, for you do not regard placing the chair in a warehouse as some sort of “credit” or “loan” to the warehouseman. You do not lend the chair to him; you continue to own the chair, and you are placing it in his trust. He doesn’t “owe” you the chair; the chair is and always continues to be yours; he is storing it for safekeeping. If the chair is not there when you arrive, you will call for the gendarmes and properly cry “theft!” You, and the law, regard the warehouseman who shrugs his shoulders at the absence of your chair not as someone who had made

an unfortunate entrepreneurial error, but as a criminal who has absconded with your chair. More precisely, you and the law would charge the warehouseman with being an “embezzler,” defined by *Webster’s* as “one who appropriates fraudulently to one’s own use what is entrusted to one’s care and management.”

Placing your goods in a warehouse (or, alternatively, in a safe-deposit box) is not, in other words, a “debt contract”; it is known in the law as a “bailment” contract, in which the bailor (the depositor) leaves property in the care, or in the trust of, the bailee (the warehouse). Furthermore, if a warehouse builds a reputation for probity, its receipts will circulate as equivalent to the actual goods in the warehouse. A warehouse receipt is of course payable to whomever holds the receipt; and so the warehouse receipt will be exchanged as if it were the good itself. If I buy your chair, I may not want to take immediate delivery of the chair itself. If I am familiar with the Jones Warehouse, I will accept the receipt for the chair at the Jones Warehouse as equivalent to receiving the actual chair. Just as a deed to a piece of land conveys title to the land itself, so does a warehouse receipt for a good serve as title to, or surrogate for, the good itself.¹

Suppose you returned from your summer vacation and asked for your chair, and the warehouseman replied, “Well, sir, I haven’t got your particular chair, but here’s

¹Thus, Armistead Dobie writes: “a transfer of the warehouse receipt, in general, confers the same measure of title that an actual delivery of the goods which it represents would confer.” Armistead M. Dobie, *Handbook on the Law of Bailments and Carriers* (St. Paul, Minn.: West Publishing, 1914), p. 163.

another one just as good." You would be just about as indignant as before, and you would still call for the gendarmes: "I want my chair, dammit!" Thus, in the ordinary course of warehousing, the temptations to embezzle are strictly limited. Everyone wants his particular piece of property entrusted to your care, and you never know he they will want to redeem it.

Some goods, however, are of a special nature. They are homogeneous, so that no one unit can be distinguished from another. Such goods are known in law as being "fungible," where any unit of the good can replace any other. Grain is a typical example. If someone deposits 100,000 bushels of No. 1 wheat in a grain warehouse (known customarily as a "grain elevator"), all he cares about when redeeming the receipt is getting 100,000 bushels of that grade of wheat. He doesn't care whether these are the *same particular bushels* that he actually deposited in the elevator.

Unfortunately, this lack of caring about the specific items redeemed opens the door for a considerable amount of embezzlement by the warehouseowner. The warehouseman may now be tempted to think as follows: "While eventually the wheat will be redeemed and shipped to a flour mill, at any given time there is always a certain amount of unredeemed wheat in my warehouse. I therefore have a margin within which I can maneuver and profit by using someone else's wheat." Instead of carrying out his trust and his bailment contract by keeping all the grain in storage, he will be tempted to commit a certain degree of embezzlement. He is not very likely to actually drive off with or sell the wheat he has in storage. A more likely and more sophisticated form of

defrauding would be for the grain elevator owner to *counterfeit* fake warehouse-receipts to, say, No. 1 wheat, and then lend out these receipts to speculators in the Chicago commodities market. The actual wheat in his elevator remains intact; but now he has printed fraudulent warehouse-receipts, receipts backed by nothing, ones that look exactly like the genuine article.

Honest warehousing, that is, one where every receipt is backed by a deposited good, may be referred to as “100 percent warehousing,” that is, where every receipt is backed by the good for which it is supposed to be a receipt. On the other hand, if a warehouseman issues fake warehouse receipts, and the grain stored in his warehouse is only a fraction (or something less than 100 percent) of the receipts or paper tickets outstanding, then he may be said to be engaging in “fractional-reserve warehousing.” It should also be clear that “fractional-reserve warehousing” is only a euphemism for fraud and embezzlement.

Writing in the late nineteenth century, the great English economist W. Stanley Jevons warned of the dangers of this kind of “general deposit warrant,” where only a certain category of good is pledged for redemption of a receipt, in contrast to “specific deposit warrants,” where the particular chair or watch must be redeemed by the warehouse. Using general warrants, “it becomes possible to create a fictitious supply of a commodity, that is, to make people believe that a supply exists which does not exist.” On the other hand, with specific deposit warrants, such as “bills of lading, pawn-tickets, dock-warrants, or certificates which establish ownership to a definite object,” it is not possible to issue such

tickets “in excess of goods actually deposited, unless by distinct fraud.”²

In the history of the U. S. grain market, grain elevators several times fell prey to this temptation, spurred by a lack of clarity in bailment law. Grain elevators issued fake warehouse receipts in grain during the 1860s, lent them to speculators in the Chicago wheat market, and caused dislocations in wheat prices and bankruptcies in the wheat market. Only a tightening of bailment law, ensuring that any issue of fake warehouse receipts is treated as fraudulent and illegal, finally put an end to this clearly impermissible practice. Unfortunately, however, this legal development did not occur in the vitally important field of warehouses for money, or deposit banking.

If “fractional-reserve” grain warehousing, that is, the issuing of warehouse receipts for non-existent goods, is clearly fraudulent, then so too is fractional-reserve warehousing for a good even more fungible than grain, i.e., money (whether it be gold or government paper). Any one unit of money is as good as any other, and indeed it is precisely for its homogeneity, divisibility, and recognizability that the market chooses gold as money in the first place. And in contrast to wheat, which after all, is eventually used to make flour and must therefore eventually be removed from the elevator, money, since it is used for exchange purposes only, does not *have* to be removed from the warehouse at all. Gold or silver may be removed for a non-monetary use

²W. Stanley Jevons, *Money and the Mechanism of Exchange*, 15th ed. (London: Kegan Paul, [1875] 1905), pp. 206–12.

such as jewelry, but paper money of course has only a monetary function, and therefore there is no compelling reason for warehouses ever to have to redeem their receipts. First, of course, the money-warehouse (also called a “deposit bank”) must develop a market reputation for honesty and probity and for promptly redeeming their receipts whenever asked. But once trust has been built up, the temptation for the money-warehouse to embezzle, to commit fraud, can become overwhelming.

For at this point, the deposit banker may think to himself: “For decades, this bank has built up a brand name for honesty and for redeeming its receipts. By this time, only a small portion of my receipts are redeemed at all. People make money payments to each other in the market, but they exchange these warehouse receipts to money as if they were money (be it gold or government paper) itself. They hardly bother to redeem the receipts. Since my customers are such suckers, I can now engage in profitable hanky-panky and none will be the wiser.”

The banker can engage in two kinds of fraud and embezzlement. He may, for example, simply take the gold or cash out of the vault and live it up, spending money on mansions or yachts. However, this may be a dangerous procedure; if he should ever be caught out, and people demand their money, the embezzling nature of his act might strike everyone as crystal-clear. Instead, a far more sophisticated and less blatant course will be for him to issue warehouse receipts to money, warehouse receipts backed by nothing but looking identical to the genuine receipts, and to lend them out to borrowers. In short, the banker counterfeits

warehouse receipts to money, and lends them out. In that way, insofar as the counterfeiter is neither detected nor challenged to redeem in actual cash, the new fake receipts will, like the old genuine ones, circulate on the market as if they were money. Functioning as money, or money-surrogates, they will thereby add to the stock of money in the society, inflate prices, and bring about a redistribution of wealth and income from the late to the early receivers of the new "money."

If a banker has more room for fraud than a grain warehouseman, it should be clear that the consequences of his counterfeiting are far more destructive. Not just the grain market but all of society and the entire economy will be disrupted and harmed. As in the case of the coin counterfeiter, all property-owners, all owners of money, are expropriated and victimized by the counterfeiter, who is able to extract resources from the genuine producers by means of his fraud. And in the case of bank money, as we shall see further, the effect of the banker's depredations will not only be price inflation and redistribution of money and income, but also ruinous cycles of boom and bust generated by expansions and contractions of the counterfeit bank credit.

Problems for the Fractional-Reserve Banker: The Criminal Law

A deposit banker could not launch a career of "fractional-reserve" fraud and inflation from the start. If I have never opened a Rothbard Bank, I could not simply launch one and start issuing fraudulent warehouse-receipts. For who would take them? First, I would have to build up over the years a

brand name for honest, 100-percent reserve banking; my career of fraud would have to be built parasitically upon my previous and properly built-up reputation for integrity and rectitude.

Once our banker begins his career of crime, there are several things he has to worry about. In the first place, he must worry that if he is caught out, he might go to jail and endure heavy fines as an embezzler. It becomes important for him to hire legal counsel, economists, and financial writers to convince the courts and the public that his fractional-reserve actions are certainly not fraud and embezzlement, that they are merely legitimate entrepreneurial actions and voluntary contracts. And that therefore if someone should present a receipt promising redemption in gold or cash on demand, and if the banker cannot pay, that this is merely an unfortunate entrepreneurial failure rather than the uncovering of a criminal act. To get away with this line of argument, he has to convince the authorities that his deposit liabilities are not a bailment, like a warehouse, but merely a good-faith debt. If the banker can convince people of this trickery, then he has greatly widened the temptation and the opportunity he enjoys, for practicing fractional-reserve embezzlement. It should be clear that, if the deposit banker, or money-warehouseman, is treated as a regular warehouseman, or bailee, the money deposited for his safe-keeping can never constitute part of the "asset" column on his balance sheet. In no sense can the money form part of his assets, and therefore in no sense are they a "debt" owed to the depositor to comprise part of the banker's liability column; as something stored for

safekeeping, they are not loans or debts and therefore do not properly form part of his balance sheet at all.

Unfortunately, since bailment law was undeveloped in the nineteenth century, the bankers' counsel were able to swing the judicial decisions their way. The landmark decisions came in Britain in the first half of the nineteenth century, and these decisions were then taken over by the American courts. In the first important case, *Carr v. Carr*, in 1811, the British judge, Sir William Grant, ruled that since the money paid into a bank deposit had been paid generally, and not earmarked in a sealed bag (i.e., as a "specific deposit") that the transaction had become a loan rather than a bailment. Five years later, in the key follow-up case of *Devaynes v. Noble*, one of the counsel argued correctly that "a banker is rather a bailee of his customer's fund than his debtor, . . . because the money in . . . [his] hands is rather a deposit than a debt, and may therefore be instantly demanded and taken up." But the same Judge Grant again insisted that "money paid into a banker's becomes immediately a part of his general assets; and he is merely a debtor for the amount." In the final culminating case, *Foley v. Hill and Others*, decided by the House of Lords in 1848, Lord Cottenham, repeating the reasoning of the previous cases, put it lucidly if astonishingly:

The money placed in the custody of a banker is, to all intents and purposes, the money of the banker, to do with as he pleases; he is guilty of no breach of trust in employing it; he is not answerable to the principal if he puts it into jeopardy, if he engages in a hazardous speculation; he is not bound to keep it or deal with it as the property of his principal; but

he is, of course, answerable for the amount, because he has contracted.³

The argument of Lord Cottenham and of all other apologists for fractional-reserve banking, that the banker only contracts for the amount of money, but not to keep the money on hand, ignores the fact that if all the depositors knew what was going on and exercised their claims at once, the banker *could not possibly* honor his commitments. In other words, honoring the contracts, and maintaining the entire system of fractional-reserve banking, requires a structure of smoke-and-mirrors, of duping the depositors into thinking that “their” money is safe, and would be honored should they wish to redeem their claims. The entire system of fractional-reserve banking, therefore, is built on deceit, a deceit connived at by the legal system.

A crucial question to be asked is this: why did grain warehouse law, where the conditions—of depositing fungible goods—are exactly the same, and grain is a general deposit and not an earmarked bundle—develop in precisely the opposite direction? Why did the courts finally recognize that deposits of even a fungible good, in the case of grain, are emphatically a bailment, not a debt? Could it be that the bankers conducted a more effective lobbying operation than did the grain men?

Indeed, the American courts, while adhering to the debt-not-bailment doctrine, have introduced puzzling anomalies

³See Murray N. Rothbard, *The Mystery of Banking* (New York: Richardson & Snyder, 1983), p. 94. On these decisions, see J. Milnes Holden, *The Law and Practice of Banking*, vol. 1, *Banker and Customer* (London: Pitman Publishing, 1970), pp. 31–32.

which indicate their confusion and hedging on this critical point. Thus, the authoritative law reporter Michie states that, in American law, a “bank deposit is more than an ordinary debt, and the depositor’s relation to the bank is not identical to that of an ordinary creditor.” Michie cites a Pennsylvania case, *People’s Bank v. Legrand*, which affirmed that “a bank deposit is different from an ordinary debt in this, that from its very nature it is constantly subject to the check of the depositor, and is always payable on demand.” Also, despite the law’s insistence, following Lord Cottenham, that a bank “becomes the absolute owner of money deposited with it,” yet a bank still “cannot speculate with its depositors’ [?] money.”⁴

Why aren’t banks treated like grain elevators? That the answer is the result of politics rather than considerations of justice or property rights is suggested by the distinguished legal historian Arthur Nussbaum, when he asserts that adopting the “contrary view” (that a bank deposit is a bailment not a debt) would “lay an unbearable burden upon banking business.” No doubt bank profits from the issue of fraudulent warehouse receipts would indeed come to an end as do any fraudulent profits when fraud is cracked down on. But grain elevators and other warehouses, after all, are able to remain in business successfully; why not genuine safe places for money?⁵

⁴A. Hewson Michie, *Michie on Banks and Banking*, rev. ed. (Charlottesville, Va.: Michie, 1973), 5A, pp. 1–31; and *ibid.*, 1979 *Cumulative Supplement*, pp. 3–9. See Rothbard, *The Mystery of Banking*, p. 275.

⁵The Bank of Amsterdam, which kept faithfully to 100-percent reserve banking from its opening in 1609 until it yielded to the temptation of financing Dutch wars in the late eighteenth century, financed itself by requiring depositors to renew their notes at the end of, say, a year, and

To highlight the essential nature of fractional-reserve banking, let us move for a moment away from banks that issue counterfeit warehouse receipts to cash. Let us assume, rather, that these deposit banks instead *actually print dollar bills* made up to look like the genuine article, replete with forged signatures by the Treasurer of the United States. The banks, let us say, print these bills and lend them out at interest. If they are denounced for what everyone would agree is forgery and counterfeiting, why couldn't these banks reply as follows: "Well, look, we do have genuine, non-counterfeit cash reserves of, say, 10 percent in our vaults. As long as people are willing to trust us, and accept these bills as equivalent to genuine cash, what's wrong with that? We are only engaged in a market transaction, no more nor less so than any other type of fractional-reserve banking." And what indeed is *wrong* about this statement that cannot be applied to any case of fractional-reserve banking?⁶

Problems for the Fractional-Reserve Banker: Insolvency

This unfortunate turn of the legal system means that the fractional-reserve banker, even if he violates his contract, cannot be treated as an embezzler and a criminal; but the banker must still face the lesser, but still unwelcome fact of insolvency. There are two major ways in which he can become insolvent.

then charging a fee for the renewal. See Arthur Nussbaum, *Money in the Law: National and International* (Brooklyn: Foundation Press, 1950), p. 105.

⁶I owe this point to Dr. David Gordon. See Murray N. Rothbard, *The Present State of Austrian Economics* (Auburn, Ala.: Ludwig von Mises Institute Working Paper, November 1992), p. 36.

The first and most devastating route, because it could happen at any time, is if the bank's customers, those who hold the warehouse receipts or receive it in payment, lose confidence in the chances of the bank's repayment of the receipts and decide, *en masse*, to cash them in. This loss of confidence, if it spreads from a few to a large number of bank depositors, is devastating because it is always fatal. It is fatal because, by the very nature of fractional-reserve banking, the bank *cannot honor* all of its contracts. Hence the overwhelming nature of the dread process known as a "bank run," a process by which a large number of bank customers get the wind up, sniff trouble, and demand their money. The "bank run," which shivers the timbers of every banker, is essentially a "populist" uprising by which the duped public, the depositors, demand the right to their own money. This process can and will break any bank subject to its power. Thus, suppose that an effective and convincing orator should go on television tomorrow, and urge the American public: "People of America, the banking system of this country is insolvent. 'Your money' is not in the bank vaults. They have less than 10 percent of your money on hand. People of America, get your money out of the banks *now* before it is too late!" If the people should now heed this advice *en masse*, the American banking system would be destroyed tomorrow.⁷

A bank's "customers" are comprised of several groups. They are those people who make the initial deposit of cash (whether gold or government paper money) in a bank. They

⁷This holocaust could only be stopped by the Federal Reserve and Treasury simply printing all the cash demanded and giving it to the banks—but that would precipitate a firestorm of runaway inflation.

are, in the second place, those who borrow the bank's counterfeit issue of warehouse receipts. But they are *also* a great number of other people, specifically those who *accept* the bank's receipts in exchange, who thereby become a bank's customers in that sense.

Let us see how the fractional-reserve process works. Because of the laxity of the law, a deposit of cash in a bank is treated as a credit rather than a bailment, and the loans go on the bank's balance sheet. Let us assume, first, that I set up a Rothbard Deposit Bank, and that at first this bank adheres strictly to a 100-percent reserve policy. Suppose that \$20,000 is deposited in the bank. Then, abstracting from my capital and other assets of the bank, its balance sheet will look as in Figure 4:

Figure 4
One-Hundred Percent Reserve Banking

Rothbard Deposit Bank	
Assets	Equity + Liabilities
Cash: \$20,000	Warehouse Receipts to Cash: \$20,000

So long as Rothbard Bank receipts are treated by the market as if they are equivalent to cash, and they function as such, the receipts will function instead of, *as surrogates for*, the

actual cash. Thus, suppose that Jones had deposited \$3,000 at the Rothbard Bank. He buys a painting from an art gallery and pays for it with his deposit receipt of \$3,000. (The receipt, as we shall see, can either be a written ticket or an open book account.) If the art gallery wishes, it need not bother redeeming the receipt for cash; it can treat the receipt as if it were cash, and itself hold on to the receipt. The art gallery then becomes a “customer” of the Rothbard Bank.

It should be clear that, in our example, either the cash itself *or* the receipt to cash circulates as money: never both at once. So long as deposit banks adhere strictly to 100-percent reserve banking, there is no increase in the money supply; only the *form* in which the money circulates changes. Thus, if there are \$2 million of cash existing in a society, and people deposit \$1.2 million in deposit banks, then the total of \$2 million of money remains the same; the only difference is that \$800,000 will continue to be cash, whereas the remaining \$1.2 million will circulate as warehouse receipts to the cash.

Suppose now that banks yield to the temptation to create fake warehouse receipts to cash, and lend these fake receipts out. What happens now is that the previously strictly separate functions of loan and deposit banking become muddled; the deposit trust is violated, and the deposit contract cannot be fulfilled if all the “creditors” try to redeem their claims. The phony warehouse receipts are loaned out by the bank. Fractional-reserve banking has reared its ugly head.

Thus, suppose that the Rothbard Deposit Bank in the previous table decides to create \$15,000 in fake warehouse receipts, unbacked by cash, but redeemable on demand in cash, and lends them out in various loans or purchases of

securities. For how the Rothbard Bank's balance sheet now looks see Figure 5:

Figure 5 Fractional-Reserve Banking	
Rothbard Deposit Bank	
Assets	Equity + Liabilities
Cash: \$20,000	Warehouse Receipts to Cash: \$35,000
IOUs from Debtors: \$15,000	
Total: \$35,000	Total: \$35,000

In this case, something very different has happened in a bank's lending operation. There is again an increase in warehouse receipts circulating as money, and a relative decline in the use of cash, but in this case there has also been a *total increase* in the supply of money. The money supply has increased because warehouse receipts have been issued that are redeemable in cash but not fully backed by cash. As in the case of any counterfeiting, the result, so long as the warehouse receipts function as surrogates for cash, will be to increase the money supply in the society, to raise prices of goods in terms of dollars, and to redistribute money and wealth to the early receivers of the new bank money (in the first instance, the bank itself, and then its debtors, and those

whom the latter spend the money on) at the expense of those who receive the new bank money later or not at all. Thus, if the society starts with \$800,000 circulating as cash and \$1.2 million circulating as warehouse receipts, as in the previous example, and the banks issue another \$1.7 million in phony warehouse receipts, the total money supply will increase from \$2 million to \$3.7 million, of which \$800,000 will still be in cash, with \$2.9 million now in warehouse receipts, of which \$1.2 million are backed by actual cash in the banks.

Are there any limits on this process? Why, for example, does the Rothbard Bank stop at a paltry \$15,000, or do the banks as a whole stop at \$1.7 million? Why doesn't the Rothbard Bank seize a good thing and issue \$500,000 or more, or umpteen millions, and the banks as a whole do likewise? What is to stop them?

The answer is the fear of insolvency; and the most devastating route to insolvency, as we have noted, is the bank run. Suppose, for example, that the banks go hog wild: the Rothbard Bank issues many millions of fake warehouse receipts; the banking system as a whole issues hundreds of millions. The more the banks issue beyond the cash in their vaults, the more outrageous the discrepancy, and the greater the possibility of a sudden loss of confidence in the banks, a loss that may start in one group or area and then, as bank runs proliferate, spread like wildfire throughout the country. And the greater the possibility for someone to go on TV and warn the public of this growing danger. And once a bank run gets started, there is nothing in the market economy that can stop that run short of demolishing the entire jerry-built fractional-reserve banking system in its wake.

Apart from and short of a bank run, there is another powerful check on bank credit expansion under fractional reserves, a limitation that applies to expansion *by any one particular* bank. Let us assume, for example, an especially huge expansion of pseudo-warehouse receipts by one bank. Suppose that the Rothbard Deposit Bank, previously hewing to 100-percent reserves, decides to make a quick killing and go all-out: upon a cash reserve of \$20,000, previously backing receipts of \$20,000, it decides to print unbacked warehouse receipts of \$1,000,000, lending them out at interest to various borrowers. Now the Rothbard Bank's balance sheet will be as in Figure 6:

Figure 6
One Bank's Hyper-Expansion

Rothbard Deposit Bank	
Assets	Liabilities
Cash: \$20,000	Warehouse Receipts to Cash: \$1,020,000
IOUs from people: \$1,000,000	
Total: \$1,020,000	Total: \$1,020,000

Everything may be fine and profitable for the Rothbard Bank for a brief while, but there is now one enormous fly embedded in its ointment. Suppose that the Rothbard Bank creates and lends out fake receipts of \$1,000,000 to one firm,

say the Ace Construction Company. The Ace Construction Company, of course, is not going to borrow money and pay interest on it but not use it; quickly, it will pay out these receipts in exchange for various goods and services. If the persons or firms who receive the receipts from Ace are all customers of the Rothbard Bank, then all is fine; the receipts are simply passed back and forth from one of the Rothbard Bank's customers to another. But suppose, instead, that the receipts go to people who are *not* customers of the Rothbard Bank, or not bank customers at all.

Suppose, for example, that the Ace Construction Company pays \$1 million to the Curtis Cement Company. And the Curtis Cement Company, for some reason, doesn't use banks; it presents the receipt for \$1 million to the Rothbard Bank and demands redemption. What happens? The Rothbard Bank, of course, has peanuts, or more precisely, \$20,000. It is immediately insolvent and out of business.

More plausibly, let us suppose that the Curtis Cement Company uses a bank, all right, but not the Rothbard Bank. In that case, say, the Curtis Cement Company presents the \$1 million receipt to its own bank, the World Bank, and the World Bank presents the receipt for \$1 million to the Rothbard Bank and demands cash. The Rothbard Bank, of course, doesn't have the money, and again is out of business.

Note that for an individual expansionist bank to inflate warehouse receipts excessively and go out of business does *not* require a bank run; it doesn't even require that the person who eventually receives the receipts is not a customer of banks. This person need only present the receipt to *another*

bank to create trouble for the Rothbard Bank that cannot be overcome.

For any one bank, the more it creates fake receipts, the more danger it will be in. But more relevant will be the number of its banking competitors and the extent of its own clientele in relation to other competing banks. Thus, if the Rothbard Bank is the only bank in the country, then there are no limits imposed on its expansion of receipts *by competition*; the only limits become either a bank run or a general unwillingness to use bank money at all.

On the other hand, let us ponder the opposite if unrealistic extreme: that every bank has *only one* customer, and that therefore there are millions of banks in a country. In that case, *any* expansion of unbacked warehouse receipts will be impossible, regardless how small. For then, even a small expansion by the Rothbard Bank beyond its cash in the vaults will lead very quickly to a demand for redemption by another bank which cannot be honored, and therefore insolvency.

One force, of course, could overcome this limit of calls for redemption by competing banks: a cartel agreement among all banks to accept each other's receipts and not call on their fellow banks for redemption. While there are many reasons for banks to engage in such cartels, there are also difficulties, difficulties which multiply as the number of banks becomes larger. Thus, if there are only three or four banks in a country, such an agreement would be relatively simple. One problem in expanding banks is making sure that all banks expand relatively proportionately. If there are a number of banks in a country, and Banks A and B expand wildly while the other banks only expand their receipts a

little, claims on Banks A and B will pile up rapidly in the vaults of the other banks, and the temptation will be to bust these two banks and not let them get away with relatively greater profits. The fewer the number of competing banks in existence, the easier it will be to coordinate rates of expansion. If there are many thousands of banks, on the other hand, coordination will become very difficult and a cartel agreement is apt to break down.⁸

Booms and Busts

We have so far emphasized that bank credit expansion under fractional-reserve banking (or “creation of counterfeit warehouse receipts”) creates price inflation, loss of purchasing power of the currency unit, and redistribution of wealth and income. Euphoria caused by a pouring of new money into the economy is followed by grumbling as price inflation sets in, and some people benefit while others lose. But inflationary booms are not the only consequence of fractional-reserve counterfeiting. For at some point in the process, a reaction sets in. An actual bank run might set in, sweeping across the

⁸An example of a successful cartel for bank credit expansion occurred in Florence in the second half of the sixteenth century. There, the Ricci bank was the dominant bank among a half dozen or so others, and was able to lead a tight cartel of banks that took in and paid out each other's receipts without bothering to redeem in specie. The result was a large expansion and an ensuing long-time bank crisis. Carlo M. Cipolla, *Money in Sixteenth-Century Florence* (Berkeley and Los Angeles: University of California Press, 1987), pp. 101–13.

It is likely that the establishment of the Bank of Amsterdam in 1609, followed by other 100 percent reserve banks in Europe, was a reaction against such bank credit-generated booms and busts as had occurred in Florence not many years earlier.

banking system; or banks, in fear of such a run, might suddenly contract their credit, call in and not renew their loans, and sell securities they own, in order to stay solvent. This sudden contraction will also swiftly contract the amount of warehouse receipts, or money, in circulation. In short, as the fractional-reserve system is either found out or in danger of being found out, swift credit contraction leads to a financial and business crisis and recession. There is no space here to go into a full analysis of business cycles, but it is clear that the credit-creation process by the banks habitually generates destructive boom-bust cycles.⁹

Types of Warehouse Receipts

Two kinds of warehouse receipts for deposit banks have developed over the centuries. One is the regular form of receipt, familiar to anyone who has ever used any sort of warehouse: a paper ticket in which the warehouse guarantees to hand over, on demand, the particular product mentioned on the receipt, e.g., "The Rothbard Bank will pay to the bearer of this ticket on demand," 10 dollars in gold coin, or Treasury paper money, or whatever. For deposit banks, this is called a "note" or "bank note." Historically, the bank note is the overwhelmingly dominant form of warehouse receipt.

Another form of deposit receipt, however, emerged in the banks of Renaissance Italy. When a merchant was large-scale and very well-known, he and the bank found it more

⁹For more on business cycles, see Murray N. Rothbard, "The Positive Theory of the Cycle," in *America's Great Depression*, 4th ed. (New York: Richardson & Snyder, 1983), pp. 11–38.

convenient for the warehouse receipt to be invisible, that is, to remain as an "open book account" on the books of the bank. Then, if he paid large sums to another merchant, he did not have to bother transferring actual bank notes; he would just write out a transfer order to his bank to shift some of his open book account to that of the other merchant. Thus, Signor Medici might write out a transfer order to the Ricci Bank to transfer 100,000 lira of his open book account at the Bank to Signor Bardi. This transfer order has come to be known as a "check," and the open book deposit account at the bank as a "demand deposit," or "checking account." Note the form of the contemporary transfer order known as a check: "I, Murray N. Rothbard, direct the Bank of America to pay to the account of Service Merchandise 100 dollars."

It should be noted that the bank note and the open book demand deposit are economically and legally equivalent. Each is an alternative form of warehouse receipt, and each takes its place in the total money supply as a surrogate, or substitute, for cash. However, the check itself is not the equivalent of the bank note, even though both are paper tickets. The bank note itself is the warehouse receipt, and therefore the surrogate, or substitute for cash and a constituent of the supply of money in the society. The check is not the warehouse receipt itself, but an order to transfer the receipt, which is an intangible open book account on the books of the bank.

If the receipt-holder chooses to keep his receipts in the form of a note or a demand deposit, or shifts from one to another, it should make no difference to the bank or to the total supply of money, whether the bank is practicing 100-percent or fractional-reserve banking.

But even though the bank note and the demand deposit are economically equivalent, the two forms will not be equally marketable or acceptable on the market. The reason is that while a merchant or another bank must always trust the bank in question in order to accept its note, for a check to be accepted the receiver must trust not only the bank but also the person who signs the check. In general, it is far easier for a bank to develop a reputation and trust in the market economy, than for an individual depositor to develop an equivalent brand name. Hence, wherever banking has been free and relatively unregulated by government, checking accounts have been largely confined to wealthy merchants and businessmen who have themselves developed a widespread reputation. In the days of uncontrolled banking, checking deposits were held by the Medicis or the Rockefellers or their equivalent, not by the average person in the economy. If banking were to return to relative freedom, it is doubtful if checking accounts would continue to dominate the economy.

For wealthy businessmen, however, checking accounts may yield many advantages. Checks will not have to be accumulated in fixed denominations, but can be made out for a precise and a large single amount; and unlike a loss of bank notes in an accident or theft, a loss of check forms will not entail an actual decline in one's assets.

Enter the Central Bank

Central Banking began in England, when the Bank of England was chartered in 1694. Other large nations copied this institution over the next two centuries, the role of the Central Bank reaching its now familiar form with the English Peel

Act of 1844. The United States was the last major nation to enjoy the dubious blessings of Central Banking, adopting the Federal Reserve System in 1913.

The Central Bank was privately owned, at least until it was generally nationalized after the mid-twentieth century. But it has always been in close cahoots with the central government. The Central Bank has always had two major roles: (1) to help finance the government's deficit; and (2) to cartelize the private commercial banks in the country, so as to help remove the two great market limits on their expansion of credit, on their propensity to counterfeit: a possible loss of confidence leading to bank runs; and the loss of reserves should any one bank expand its own credit. For cartels on the market, even if they are to each firm's advantage, are very difficult to sustain unless government enforces the cartel. In the area of fractional-reserve banking, the Central Bank can assist cartelization by removing or alleviating these two basic free-market limits on banks' inflationary expansion credit.

It is significant that the Bank of England was launched to help the English government finance a large deficit. Governments everywhere and at all times are short of money, and much more desperately so than individuals or business firms. The reason is simple: unlike private persons or firms, who obtain money by selling needed goods and services to others, governments produce nothing of value and therefore have nothing to sell.¹⁰ Governments can only obtain money

¹⁰ A minor exception: when admirably small governments such as Monaco or Liechtenstein issue beautiful stamps to be purchased by

by grabbing it from others, and therefore they are always on the lookout to find new and ingenious ways of doing the grabbing. Taxation is the standard method; but, at least until the twentieth century, the people were very edgy about taxes, and any increase in a tax or imposition of a new tax was likely to land the government in revolutionary hot water.

After the discovery of printing, it was only a matter of time until governments began to “counterfeit” or to issue paper money as a substitute for gold or silver. Originally the paper was redeemable or supposedly redeemable in those metals, but eventually it was cut off from gold so that the currency unit, the dollar, pound, mark, etc. became names for independent tickets or notes issued by government rather than units of weight of gold or silver. In the Western world, the first government paper money was issued by the British colony of Massachusetts in 1690.¹¹

The 1690s were a particularly difficult time for the English government. The country had just gone through four decades of revolution and civil war, in large part in opposition to high taxes, and the new government scarcely felt secure enough to impose a further bout of higher taxation. And yet, the government had many lands it wished to conquer, especially the mighty French Empire, a feat that would

collectors. Sometimes, of course, governments will seize and monopolize a service or resource and sell their products (e.g., a forest) or sell the monopoly rights to its production, but these are scarcely exceptions to the eternal coercive search for revenue by government.

¹¹Printing was first developed in ancient China, and so it should come as no surprise that the first government paper money arrived in mid-eighth century China. See Gordon Tullock, “Paper Money—A Cycle in Cathay,” *Economic History Review* 9, no. 3 (1957): 396.

entail a vast increase in expenditures. The path of deficit spending seemed blocked for the English since the government had only recently destroyed its own credit by defaulting on over half of its debt, thereby bankrupting a large number of capitalists in the realm, who had entrusted their savings to the government. Who then would lend anymore money to the English State?

At this difficult juncture, Parliament was approached by a syndicate headed by William Paterson, a Scottish promoter. The syndicate would establish a Bank of England, which would print enough bank notes, supposedly payable in gold or silver, to finance the government deficit. No need to rely on voluntary savings when the money tap could be turned on! In return, the government would keep all of its deposits at the new bank. Opening in July 1694, the Bank of England quickly issued the enormous sum of £760,000, most of which was used to purchase government debt. In less than two years time, the bank's outstanding notes of £765,000 were only backed by £36,000 in cash. A run demanding specie smashed the bank, which was now out of business. But the English government, in the first of many such bailouts, rushed in to allow the Bank of England to "suspend specie payments," that is, to cease its obligations to pay in specie, while yet being able to force *its* debtors to pay the bank in full. Specie payments resumed two years later, but from then on, the government allowed the Bank of England to suspend specie payment, while continuing in operation, every time it got into financial difficulties.

The year following the first suspension, in 1697, the Bank of England induced Parliament to prohibit any new

corporate bank from being established in England. In other words, no other incorporated bank could enter into competition with the Bank. In addition, counterfeiting Bank of England notes was now made punishable by death. A decade later, the government moved to grant the Bank of England a virtual monopoly on the issue of bank notes. In particular, after 1708, it was unlawful for any corporation other than the Bank of England to issue paper money, and any note issue by bank partnerships of more than six persons was also prohibited.

The modern form of Central Banking was established by the Peel Act of 1844. The Bank of England was granted an absolute monopoly on the issue of all bank notes in England. These notes, in turn, were redeemable in gold. Private commercial banks were only allowed to issue demand deposits. This meant that, in order to acquire cash demanded by the public, the banks had to keep checking accounts at the Bank of England. In effect, bank demand deposits were redeemable in Bank of England notes, which in turn were redeemable in gold. There was a double-inverted pyramid in the banking system. At the bottom pyramid, the Bank of England, engaging in fractional-reserve banking, multiplied fake warehouse receipts to gold—its notes and deposits—on top of its gold reserves. In their turn, in a second inverted pyramid on top of the Bank of England, the private commercial banks pyramided their demand deposits on top of *their* reserves, or their deposit accounts, at the Bank of England. It is clear that, once Britain went off the gold standard, first during World War I and finally in 1931, the Bank of England notes could serve as the standard fiat money, and the private

banks could still pyramid demand deposits on top of their Bank of England reserves. The big difference is that now the gold standard no longer served as any kind of check upon the Central Bank's expansion of its credit, i.e., its counterfeiting of notes and deposits.

Note, too, that with the prohibition of private bank issue of *notes*, in contrast to demand deposits, for the first time the *form* of warehouse receipt, whether notes or deposits, made a big difference. If bank customers wish to hold cash, or paper notes, instead of intangible deposits, their banks have to go to the Central Bank and draw down their reserves. As we shall see later in analyzing the Federal Reserve, the result is that a change from demand deposit to note has a contractionary effect on the money supply, whereas a change from note to intangible deposit will have an inflationary effect.

Easing the Limits on Bank Credit Expansion

The institution of Central Banking eased the free-market restrictions on fractional-reserve banking in several ways. In the first place, by the mid-nineteenth century a "tradition" was craftily created that the Central Bank must always act as a "lender of last resort" to bail out the banks should the bulk of them get into trouble. The Central Bank had the might, the law, and the prestige of the State behind it; it was the depository of the State's accounts; and it had the implicit promise that the State regards the Central Bank as "too big to fail." Even under the gold standard, the Central Bank note tended to be used, at least implicitly, as legal tender, and actual redemption in gold, at least by domestic citizens, was increasingly discouraged

though not actually prohibited. Backed by the Central Bank and beyond it by the State itself, then, public confidence in the banking system was artificially bolstered, and runs on the banking system became far less likely.

Even under the gold standard, then, domestic demands for gold became increasingly rare, and there was generally little for the banks to worry about. The major problem for the bankers was *international* demands for gold, for while the citizens of, say, France, could be conned into not demanding gold for notes or deposits, it was difficult to dissuade British or German citizens holding bank deposits in francs from cashing them in for gold.

The Peel Act system insured that the Central Bank could act as a cartelizing device, and in particular to make sure that the severe free-market limits on the expansion of *any one bank* could be circumvented. In a free market, as we remember, if a Rothbard Bank expanded notes or deposits by itself, these warehouse receipts would quickly fall into the hands of clients of *other banks*, and these people or their banks would demand redemption of Rothbard warehouse receipts in gold. And since the whole point of fractional-reserve banking is *not* to have sufficient money to redeem the receipts, the Rothbard Bank would quickly go under. But if a Central Bank enjoys the monopoly of bank notes, and the commercial banks all pyramid expansion of their demand deposits on top of their “reserves,” or checking accounts at the Central Bank, then all the Bank need do to assure successful cartelization is to expand proportionately throughout the country, so that all competing banks increase their reserves, and can expand together at the same rate. Then, if the Rothbard Bank,

for example, prints warehouse receipts far beyond, say triple, its reserves in deposits at the Central Bank, it will not, on net, lose reserves if all the competing banks are expanding *their* credit at the same rate. In this way, the Central Bank acts as an effective cartelizing agent.

But while the Central Bank can mobilize all the banks within a country and make sure they all expand the money-substitutes they create at the same rate, they once again have a problem with the banks of *other* countries. While the Central Bank of Ruritania can see to it that all the Ruritanian banks are mobilized and expand their credit and the money-supply together, it has no power over the banks or the currencies of other countries. Its cartelizing potential extends only to the borders of its own country.

The Central Bank Buys Assets

Before analyzing operations of the Federal Reserve in more detail, we should understand that the most important way that a Central Bank can cartelize its banking system is by increasing the reserves of the banks, and the most important way to do that is simply by buying assets.

In a gold standard, the “reserve” of a commercial bank, the asset that allegedly stands behind its notes or deposits, is gold. When the Central Bank enters the scene, and particularly after the Peel Act of 1844, the reserves consist of gold, but predominantly they consist of the bank’s demand deposit account at the Central Bank, an account which enables the bank to redeem its own checking account in the notes of the Central Bank, which enjoys a State-granted monopoly on the issue of tangible notes. As a result, in practice the banks

hold Central Bank deposits as their reserve and they redeem in Central Bank notes, whereas the Central Bank is pledged to redeem those notes in gold.

This post-Peel Act structure, it is clear, not undesignedly paved the way for a smooth transition to a fiat paper standard. Since the average citizen had come to use Central Bank notes as his cash, and gold was demanded only by foreigners, it was relatively easy and not troublesome for the government to go off gold and to refuse to redeem its or its Central Bank notes in specie. The average citizen continued to use Bank notes and the commercial banks continued to redeem their deposits in those notes. The daily economic life of the country seemed to go on much as before. It should be clear that, if there had been no Central Bank, and especially no Central Bank with a Peel Act type monopoly of notes, going off gold would have created a considerable amount of trouble and a public outcry.

How, then, can the Central Bank increase the reserves of the banks under its jurisdiction? Simply by buying assets. It doesn't matter *whom* it buys assets from, whether from the banks or from any other individual or firm in the economy. Suppose a Central Bank buys an asset from a bank. For example, the Central Bank buys a building, owned by the Jonesville Bank for \$1,000,000. The building, appraised at \$1,000,000, is transferred from the asset column of the Jonesville Bank to the asset column of the Central Bank. How does the Central Bank pay for the building? Simple: by writing out a check on itself for \$1,000,000. Where did it get the money to write out the check? It created the money out of thin air, i.e., by creating a fake warehouse receipt for \$1,000,000 in

cash which it does not possess. The Jonesville Bank deposits the check at the Central Bank, and the Jonesville Bank's deposit account at the Central Bank goes up by \$1,000,000. The Jonesville Bank's total reserves have increased by \$1,000,000, upon which it and other banks will be able, in a short period of time, to multiply their own warehouse receipts to non-existent reserves manyfold, and thereby to increase the money supply of the country manyfold.

Figure 7 demonstrates this initial process of purchasing assets. We now have to deal with two sets of T-accounts: the commercial bank and the Central Bank. The process is shown as in figure 7.

Figure 7	
Central Bank Buys an Asset from a Commercial Bank	
Commercial Bank	
Assets	Equity + Liabilities
House: \$1,000,000 Deposit at Central Bank: + \$1,000,000	
Central Bank	
Assets	Equity + Liabilities
House: + \$1,000,000	Deposit to banks: + \$1,000,000

Now, let us analyze the similar, though less obvious, process that occurs when the Central Bank buys an asset from anyone, any individual or firm, in the economy. Suppose that the Central Bank buys a house worth \$1,000,000 from Jack Levitt, homebuilder. The Central Bank's asset column increases by \$1,000,000 for the house; again, it pays for the house by writing a \$1,000,000 check on itself, a warehouse receipt for non-existent cash it creates out of thin air. It writes out the check to Mr. Levitt. Levitt, who cannot have an account at the Central Bank (only banks can do so), can do only one thing with the check: deposit it at whatever bank he uses. This increases his checking account by \$1,000,000. Now, here there is a variant on the events of the previous example. Already, in the one act of depositing this check, the total money supply in the country has increased by \$1,000,000, a \$1,000,000 which did not exist before. So an inflationary increase in the money supply has already occurred. And redistribution has already occurred as well, since all of the new money, at least initially, resides in the possession of Mr. Levitt. But this is only the initial increase, for the bank used by Levitt, say the Rockville Bank, takes the check and deposits it at the Central Bank, thereby gaining \$1,000,000 in its deposits, which serve as its reserves for its own fractional-reserve banking operations. The Rockville Bank, accompanied by other, competing banks, will then be able to pyramid an expansion of multiple amounts of warehouse receipts and credits, which will comprise the new warehouse receipts being loaned out. There will be a multiple expansion of the money supply. This process can be seen in Figures 8 and 9 below.

At this point, the commercial bank has an increase in its reserves—its demand deposits at the Central Bank—of \$1,000,000. This bank, accompanied by its fellow commercial banks, can now expand a multiple of loans and demand deposits on top of those reserves. Let us assume—a fairly realistic assumption—that that multiple is 10-to-1. The bank feels that now it can expand its demand deposits to 10 times its reserves. It now creates new demand deposits in the process of lending them out to businesses or consumers, either directly or in the course of purchasing securities on the

Figure 8
Central Bank Buys an Asset from a Non-Bank

Commercial Bank	
Assets	Equity + Liabilities
Demand deposit at Central Bank: + \$1,000,000	Demand deposits: (to Levitt) + \$1,000,000

Central Bank	
Assets	Equity + Liabilities
House: + \$1,000,000	Demand deposits to banks: + \$1,000,000

market. At the end of this expansion process taking a few weeks, the bank's balance sheet can be seen in Figure 9 below. Note that the situation in Figure 9 could have resulted, either from the direct purchase of an asset by the Central Bank from the commercial bank itself (Figure 7), *or* by purchasing an asset in the open market from someone who is a depositor at this or another commercial bank (Figure 8). The end result will be the same.

Figure 9
Result of Credit Expansion Process

Commercial Banks	
Assets	Equity + Liabilities
IOUs due from business: + \$9,000,000	Demand deposits: + \$10,000,000
Demand deposit at Central Bank: + \$1,000,000	
Central Bank	
Assets	Equity + Liabilities
House: + \$1,000,000	Demand deposits to banks: + \$1,000,000