

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.

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

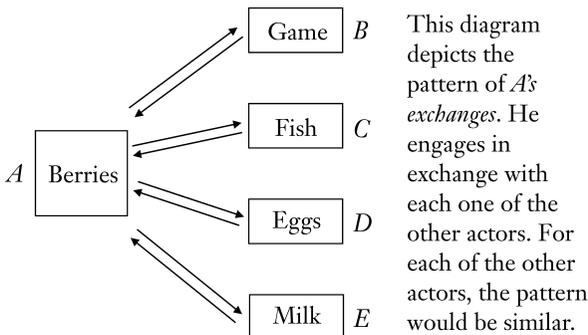


FIGURE 7. PATTERN OF A'S EXCHANGES

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.

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.

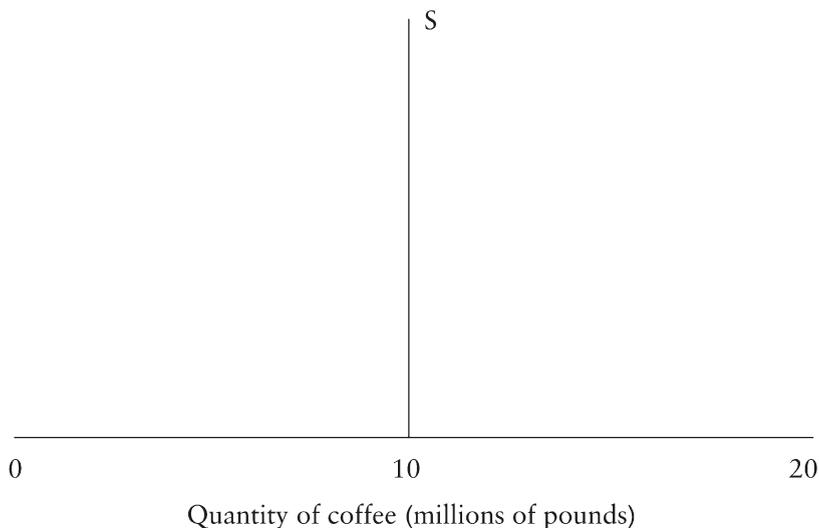


FIGURE 2.1 — THE SUPPLY LINE

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

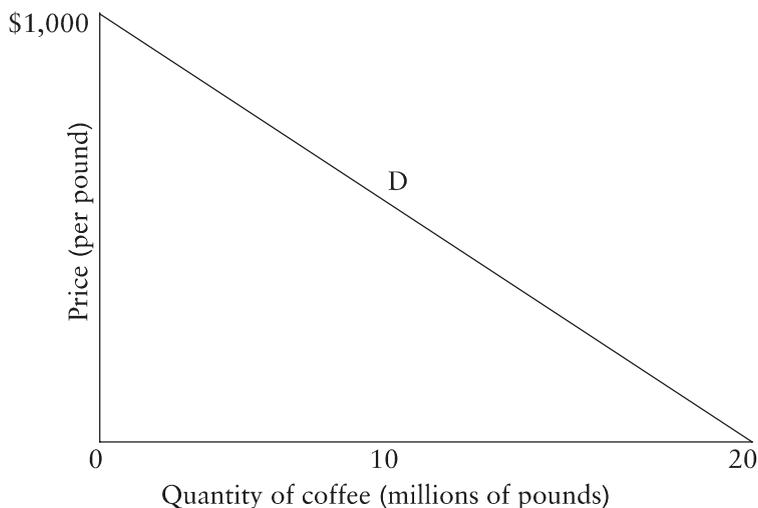


FIGURE 2.2 — THE DEMAND CURVE¹

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.

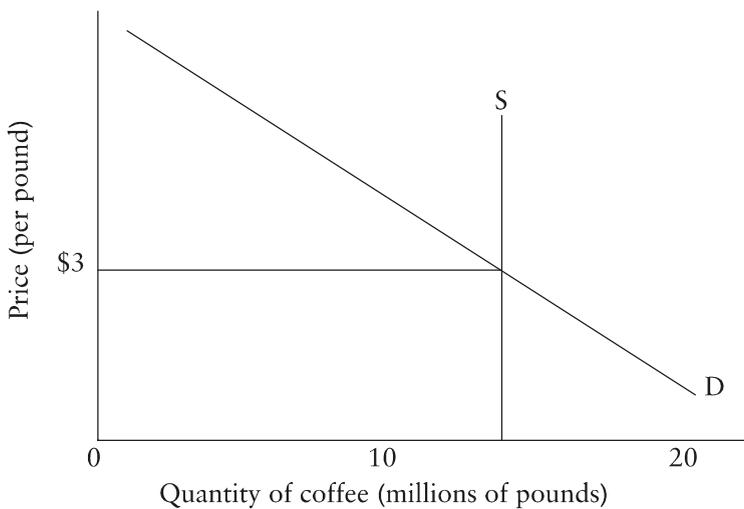


FIGURE 2.3 — SUPPLY AND DEMAND

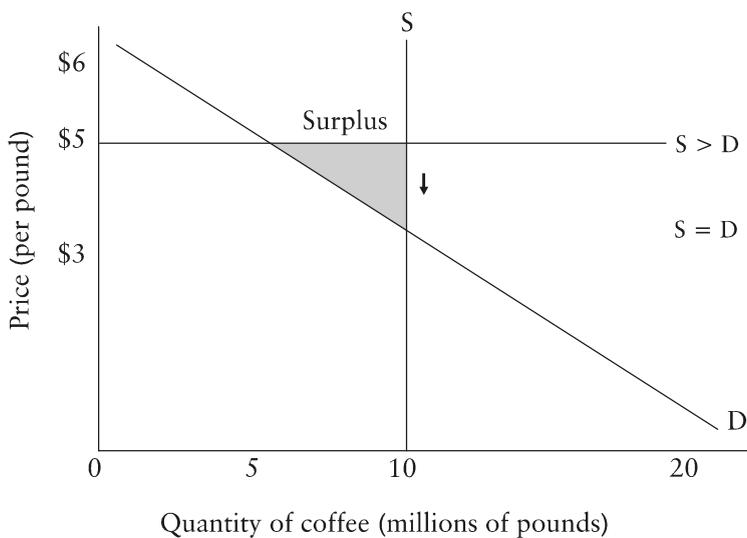


FIGURE 2.4 — SURPLUS

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

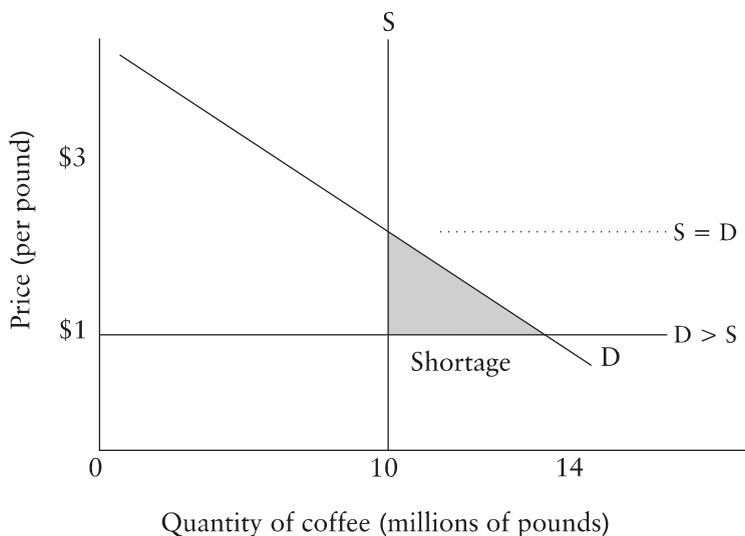


FIGURE 2.5 — SHORTAGE

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

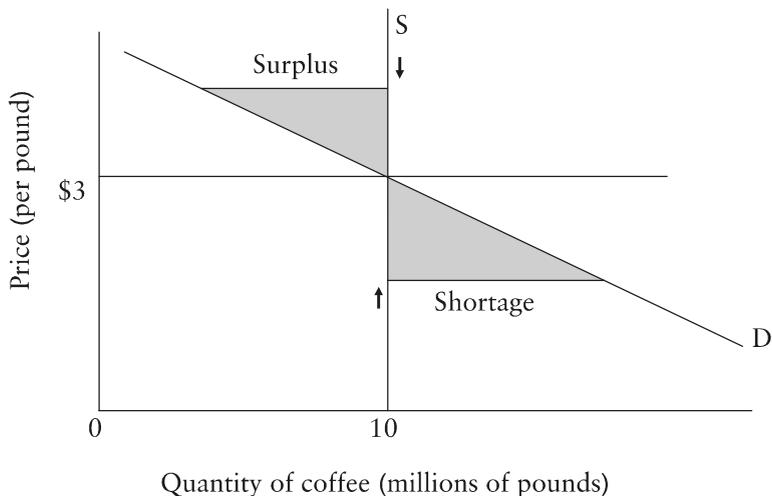


FIGURE 2.6 — TOWARD EQUILIBRIUM

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

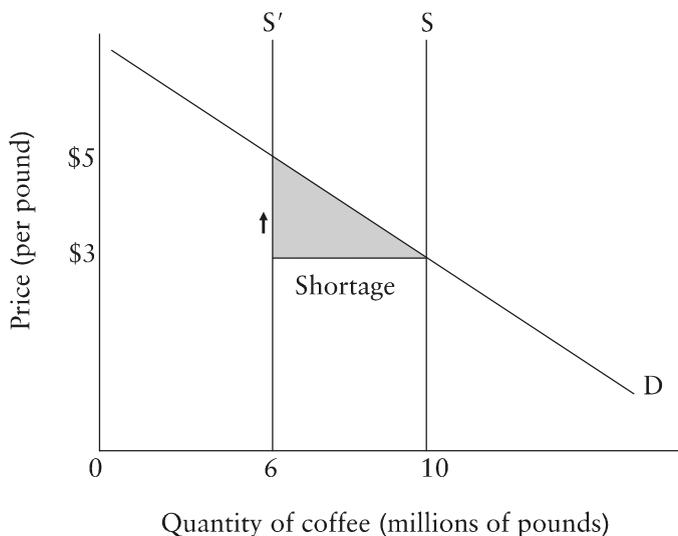


FIGURE 2.7 — DECLINE IN SUPPLY

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:

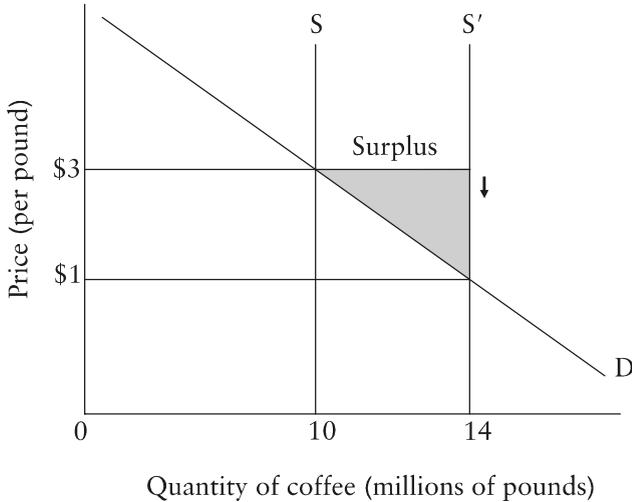


FIGURE 2.8 — INCREASE OF SUPPLY

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 .

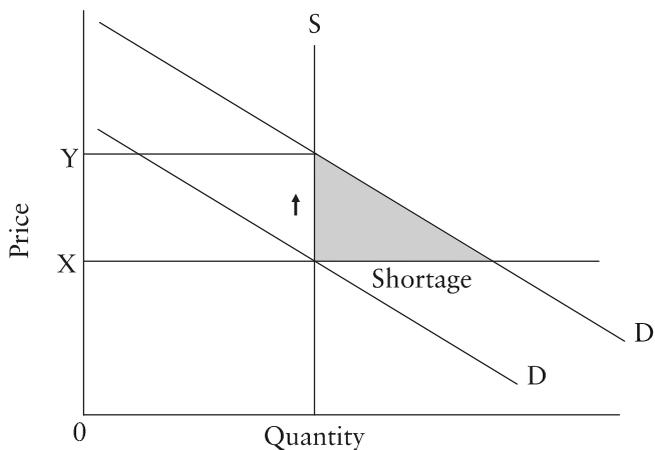


FIGURE 2.9 — THE BEEF MARKET: INCREASE IN DEMAND

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:

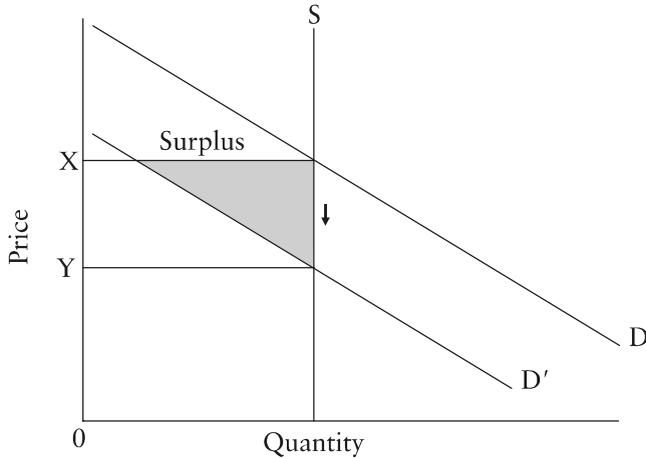


FIGURE 2.10 — THE PORK MARKET: DECLINE IN DEMAND

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.

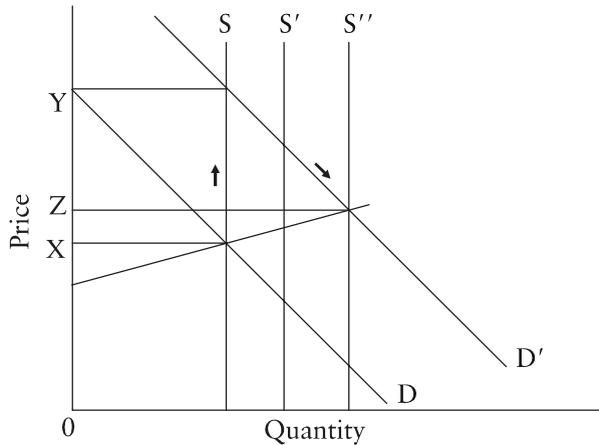


FIGURE 2.11 — THE BEEF MARKET: RESPONSE OF SUPPLY

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.

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.

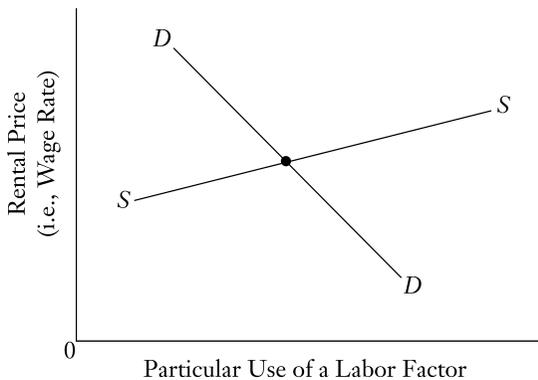


FIGURE 63. SUPPLY OF AND DEMAND FOR LABOR FOR A PARTICULAR USE

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

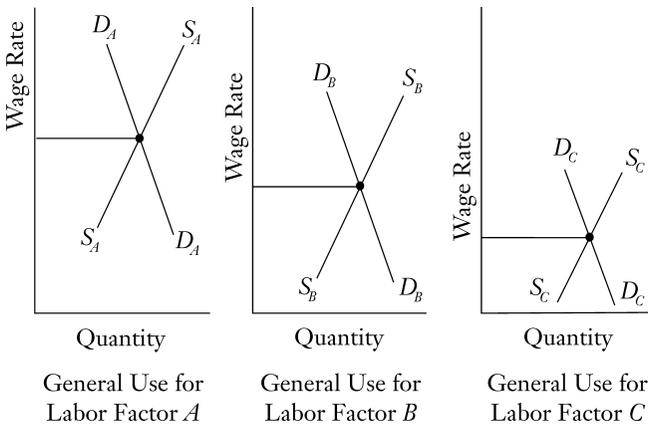


FIGURE 64. GENERAL SUPPLY AND DEMAND CURVES FOR VARIOUS LABOR FACTORS

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.

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 ordinary 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.

A Critique of Neoclassical and Austrian Monopoly Theory

D. T. Armentano



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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

¹ For a review of this position see, for instance, Edwin Mansfield, *Microeconomics*, Second Edition (Norton, 1975), Chapters 9 & 10.

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.

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).

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.

⁴ D. T. Armentano, *The Myths of Antitrust: Economic Theory and Legal Cases* (Arlington House, 1972), Chapter 2.

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' 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

⁵ *Ibid.*, pp. 212-15, 246, 267-68.

⁶ Ludwig von Mises, *Human Action* (Yale University Press, 1963), p. 358.

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

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.

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

¹⁷ *Ibid.*, p. 21.

¹⁸ *Ibid.*, p. 103.

¹⁹ *Ibid.*

²⁰ *Ibid.*, p. 105.

²¹ *Ibid.*, p. 110.

²² *Ibid.*, p. 111

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

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.

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."

²⁸ *Ibid.*, pp. 608-9

²⁹ *Ibid.*, p. 564.

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"?

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.

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*

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.

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 cardinally 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.

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.

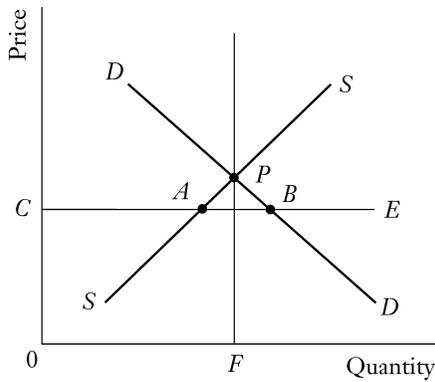


FIGURE 83. EFFECT OF A MAXIMUM PRICE CONTROL

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

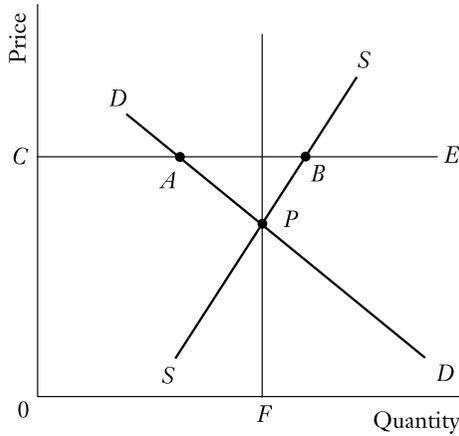


FIGURE 84. EFFECT OF A MINIMUM PRICE CONTROL

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

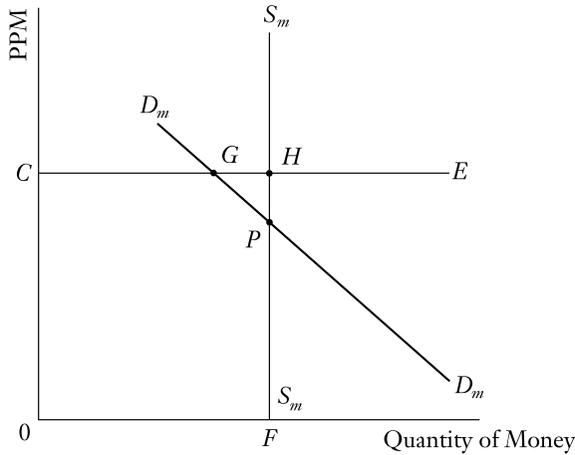


FIGURE 85. EFFECT OF IMPOSING GENERAL PRICE MAXIMA

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.

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.

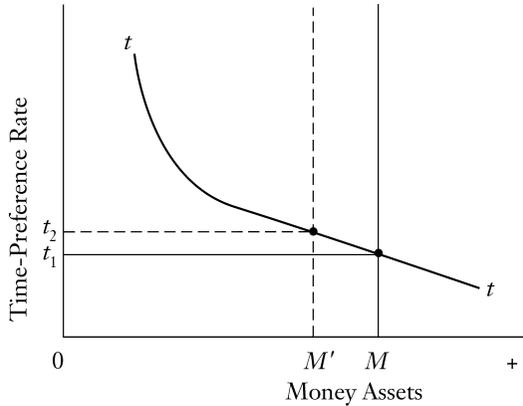


FIGURE 86. EFFECT OF INCOME TAX ON TAXPAYER'S RATIO OF CONSUMPTION TO SAVING AND INVESTMENT

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?

CHAPTER I
THE NATURE OF
ECONOMIC ACTIVITY

§ I

A contribution to the critique of the concept 'Economic Activity'

ECONOMIC Science originated in discussion of the money price of goods and services. Its first beginnings are to be found in inquiries about coinage, which developed into investigations of price movements. Money, money prices, and everything concerned with calculation in terms of money — these form the problems in the discussion of which the science of Economics emerged. Those attempts at economic inquiry, which are discernible in works on household management and the organization of production — particularly agricultural — did not develop further in this direction. They became merely the starting point for various departments of technology and natural science. And this was no accident. Only through the rationalization inherent in economic calculation based on the use of money could the human mind come to understand and trace the laws of its action.

The earlier economists did not ask themselves what the 'economic' and 'economic activity' really were. They had enough to do with the great tasks presented by the particular problems with which they were then concerned. They were not concerned with methodology. It was quite late before they began to grapple with the methods and ultimate aims of economics, and its place in the general system of knowledge. And then an obstacle was encountered which seemed to be insurmountable — the problem of defining the subject matter of economic activity.

All theoretical inquiries — those of the classical economists, equally with those of the moderns — start from the economic principle. Yet, as was necessarily soon perceived, this provides no basis for clearly defining the subject matter of economics. The economic principle is a general principle of rational action, and not

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a specific principle of such action as forms the subject of economic inquiry.¹ The economic principle directs all rational action, all action capable of becoming the subject matter of a science. It seemed absolutely unserviceable for separating the 'economic' from the 'non-economic', so far as the traditional economic problems were concerned.²

But, on the other hand, it was equally impossible to divide up rational actions according to the immediate end to which they were directed, and to regard as the subject matter of economics only those actions which were directed to providing mankind with the commodities of the external world. Against such a procedure it is a decisive objection that, in the last analysis, the provision of material goods serves not only those ends which are usually termed economic, but also many other ends.

Such a division of the motives of rational action involves a dual conception of action — action from economic motives, on the one side, action from non-economic motives, on the other — which is absolutely irreconcilable with the necessary unity of will and action. A theory of rational action must conceive such action as unitary.

§ 2

Rational Action

Action based on reason, action therefore which is only to be understood by reason, knows only *one* end, the greatest pleasure of the acting individual. The attainment of pleasure, the avoidance of pain — these are its intentions. By this, of course, we do not mean 'pleasure' and 'pain' in the sense in which these terms used to be used. In the terminology of the modern economist, pleasure is to be understood as embracing all those things which men hold to be desirable, all that they want and strive for. There can therefore be no longer any contrast between the 'noble' ethics of duty and the vulgar hedonistic ethics. The modern concept of pleasure, happiness,

¹ It was left to the empiric-realistic school, with its terrible confusion of all concepts, to explain the economic principle as a specific of production under a money economy; e.g. Lexis, *Allgemeine Volkswirtschaftslehre*, Berlin and Leipzig 1910, p. 15.

² Amonn, *Objekt und Grundbegriffe der theoretischen Nationalökonomie*, 2nd Edition, Wien und Leipzig 1927, p. 185.

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utility, satisfaction and the like includes all human ends, regardless of whether the motives of action are moral or immoral, noble or ignoble, altruistic or egotistical.¹

In general men act only because they are not completely satisfied. Were they always to enjoy complete happiness, they would be without will, without desire, without action. In the land of the lotus-eaters there is no action. Action arises only from need, from dissatisfaction. It is purposeful striving towards something. Its ultimate end is always to get rid of a condition which is conceived to be deficient — to fulfil a need, to achieve satisfaction, to increase happiness. If men had all the external resources of nature so abundantly at their disposal that they were able to obtain complete satisfaction by action, then they could use them heedlessly. They would only have to consider their own powers and the limited time at their disposal. For, compared with the sum of their needs, they would still have only a limited strength and a limited life-time available. They would still have to economize time and labour. But to economy of materials they would be indifferent. In fact, however, materials are also limited, so that they too have to be used in such a way that the most urgent needs are satisfied first, with the least possible expenditure of materials for each satisfaction.

The spheres of rational action and economic action are therefore co-incident. All rational action is economic. All economic activity is rational action. All rational action is in the first place individual action. Only the individual thinks. Only the individual reasons. Only the individual acts. How society arises from the action of individuals will be shown in a later part of our discussion.

§ 3

Economic calculation

All human action, so far as it is rational, appears as the exchange of one condition for another. Men apply economic goods and personal time and labour in the direction which, under the given circumstances, promises the highest degree of satisfaction, and they

¹ J. S. Mill, *Das Nützlichkeitsprinzip*, translated by Wahrmund (Gesammelte Werke, Deutsche Ausgabe von Th. Gomperz, Vol. I, Leipzig 1869, pp. 125-200).

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forego the satisfaction of lesser needs so as to satisfy the more urgent needs. This is the essence of economic activity — the carrying out of acts of exchange.¹

Every man who, in the course of economic activity, chooses between the satisfaction of two needs, only one of which can be satisfied, makes judgments of value. Such judgments concern firstly and directly the satisfactions themselves; it is only from these that they are reflected back upon goods. As a rule anyone in possession of his senses is able at once to evaluate goods which are ready for consumption. Under very simple conditions he should also have little difficulty in forming a judgment upon the relative significance to him of the factors of production. When, however, conditions are at all complicated, and the connection between things is harder to detect, we have to make more delicate computations if we are to evaluate such instruments. Isolated man can easily decide whether to extend his hunting or his cultivation. The processes of production he has to take into account are relatively short. The expenditure they demand and the product they afford can easily be perceived as a whole. But to choose whether we shall use a waterfall to produce electricity or extend coal-mining and better utilize the energy contained in coal, is quite another matter. Here the processes of production are so many and so long, the conditions necessary to the success of the undertaking so multitudinous, that we can never be content with vague ideas. To decide whether an undertaking is sound we must calculate carefully.

But computation demands units. And there can be no unit of the subjective use-value of commodities. Marginal utility provides no unit of value. The worth of two units of a given commodity is not twice as great as one — although it is necessarily greater or smaller than one. Judgments of value do not measure: they arrange, they grade.² If he relies only on subjective valuation, even isolated man cannot arrive at a decision based on more or less exact computations in cases where the solution is not immediately evident. To aid his calculations he must assume substitution relations between commodities. As a rule he will not be able to reduce all to a common

¹ Schumpeter, *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie*, Leipzig 1908, pp. 50, 80.

² The following remarks reproduce parts of my essay *Die Wirtschaftsrechnung im sozialistischen Gemeinwesen* (Archiv für Sozialwissenschaft, Vol. XLVII, pp. 86-121).

³ Čuhel, *Zur Lehre von den Bedürfnissen*, Innsbruck 1907, p. 198.

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unit. But he may succeed in reducing all elements in the computation to such commodities as he can evaluate immediately, that is to say, to goods ready for consumption and the disutility of labour and then he is able to base his decision upon this evidence. It is obvious that even this is possible only in very simple cases. For complicated and long processes of production it would be quite out of the question.

In an exchange economy, the objective exchange value of commodities becomes the unit of calculation. This involves a threefold advantage. In the first place we are able to take as the basis of calculation the valuation of all individuals participating in trade. The subjective valuation of one individual is not directly comparable with the subjective valuation of others. It only becomes so as an exchange value arising from the interplay of the subjective valuations of all who take part in buying and selling. Secondly, calculations of this sort provide a control upon the appropriate use of the means of production. They enable those who desire to calculate the cost of complicated processes of production to see at once whether they are working as economically as others. If, under prevailing market prices, they cannot carry through the process at a profit, it is a clear proof that others are better able to turn to good account the instrumental goods in question. Finally, calculations based upon exchange values enable us to reduce values to a common unit. And since the higgling of the market establishes substitution relations between commodities, any commodity desired can be chosen for this purpose. In a money economy, money is the commodity chosen.

Money calculations have their limits. Money is neither a yardstick of value nor of prices. Money does not *measure* value. Nor are prices measured in money: they are amounts of money. And, although those who describe money as a 'standard of deferred payments' naively assume it to be so, as a commodity it is not stable in value. The relation between money and goods perpetually fluctuates not only on the 'goods side', but on the 'money side' also. As a rule, indeed, these fluctuations are not too violent. They do not too much impair the economic calculus, because under a state of continuous change of all economic conditions, this calculus takes in view only comparatively short periods, in which 'sound money' at least does not change its purchasing power to any very great extent.

The deficiencies of money calculations arise for the most part, not

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because they are made in terms of a general medium of exchange, money, but because they are based on exchange values rather than on subjective use-values. For this reason all elements of value which are not the subject of exchange elude such computations. If, for example, we are considering whether a hydraulic power-works would be profitable we cannot include in the computation the damage which will be done to the beauty of the waterfalls unless the fall in values due to a fall in tourist traffic is taken into account. Yet we must certainly take such considerations into account when deciding whether the undertaking shall be carried out.

Considerations such as these are often termed 'non-economic'. And we may permit the expression for disputes about terminology gain nothing. But not all such considerations should be called irrational. The beauty of a place or of a building, the health of the race, the honour of individuals or nations, even if (because they are not dealt with on the market) they do not enter into exchange relations, are just as much motives of rational action, provided people think them significant, as those normally called economic. That they cannot enter into money calculations arises from the very nature of these calculations. But this does not in the least lessen the value of money calculations in ordinary economic matters. For all such moral goods are goods of the first order. We can value them directly; and therefore have no difficulty in taking them into account, even though they lie outside the sphere of money computations. That they elude such computations does not make it any more difficult to bear them in mind. If we know precisely how much we have to pay for beauty, health, honour, pride, and the like, nothing need hinder us from giving them due consideration. Sensitive people may be pained to have to choose between the ideal and the material. But that is not the fault of a money economy. It is in the nature of things. For even where we can make judgments of value without money computations we cannot avoid this choice. Both isolated man and socialist communities would have to do likewise, and truly sensitive natures will never find it painful. Called upon to choose between bread and honour, they will never be at a loss how to act. If honour cannot be eaten, eating can at least be foregone for honour. Only such as fear the agony of choice because they secretly know that they could not forego the material, will regard the necessity of choice as a profanation.

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Money computations are only significant for purposes of economic calculation. Here they are used in order that the disposal of commodities may conform to the criterion of economy. And such calculations take account of commodities only in the proportions in which, under given conditions, they exchange for money. Every extension of the sphere of money calculation is misleading. It is misleading when in historical researches, it is employed as a measure of past commodity values. It is misleading when it is employed to evaluate the capital or national income of nations. It is misleading when it is employed to estimate the value of things which are not exchangeable as, for instance, when people attempt to estimate the loss due to emigration or war.¹ All these are dilettantisms — even when they are undertaken by the most competent economists.

But within these limits — and in practical life they are not overstepped — money calculation does all that we are entitled to ask of it. It provides a guide amid the bewildering throng of economic possibilities. It enables us to extend judgments of value which apply directly only to consumption goods — or at best to production goods of the lowest order — to all goods of higher orders. Without it, all production by lengthy and roundabout processes would be so many steps in the dark.

Two things are necessary if computations of value in terms of money are to take place. First, not only goods ready for consumption but also goods of higher orders must be exchangeable. If this were not so, a system of exchange relationships could not emerge. It is true that if an isolated man is 'exchanging' labour and flour for bread within his own house, the considerations he has to take into account are not different from those which would govern his actions if he were to exchange bread for clothes on the market. And it is, therefore, quite correct to regard all economic activity, even the economic activity of isolated man, as exchange. But no single man, be he the greatest genius ever born, has an intellect capable of deciding the relative importance of each one of an infinite number of goods of higher orders. No individual could so discriminate between the infinite number of alternative methods of production that he could make direct judgments of their relative value without auxiliary calculations. In societies based on the division of labour, the

¹ Wieser, *Über den Ursprung und die Hauptgesetze des wirtschaftlichen Wertes*, Wien 1884, p. 185 et seq.

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distribution of property rights effects a kind of mental division of labour, without which neither economy nor systematic production would be possible.

In the second place, there must be a general medium of exchange, a money, in use. And this must serve as an intermediary in the exchange of production goods equally with the rest. If this were not so, it would be impossible to reduce all exchange relationships to a common denominator.

Only under very simple conditions is it possible to dispense with money calculations. In the narrow circle of a closed household, where the father is able to supervise everything, he may be able to evaluate alterations in methods of production without having recourse to money reckoning. For, in such circumstances, production is carried on with relatively little capital. Few roundabout methods of production are employed. As a rule production is concerned with consumption goods, or goods of higher orders not too far removed from consumption goods. Division of labour is still in its earliest stages. The labourer carries through the production of a commodity from beginning to end. In an advanced society all this is changed. It is impossible to argue from the experience of primitive societies that under modern conditions we can dispense with money.

In the simple conditions of a closed household, it is possible to survey the whole process of production from beginning to end. It is possible to judge whether one particular process gives more consumption goods than another. But, in the incomparably more complicated conditions of our own day, this is no longer possible. True, a socialistic society could see that 1000 litres of wine were better than 800 litres. It could decide whether or not 1000 litres of wine were to be preferred to 500 litres of oil. Such a decision would involve no calculation. The will of some man would decide. But the real business of economic administration, the adaptation of means to ends only begins when such a decision is taken. And only economic calculation makes this adaptation possible. Without such assistance, in the bewildering chaos of alternative materials and processes the human mind would be at a complete loss. Whenever we had to decide between different processes or different centres of production, we would be entirely at sea.¹

¹ Gottl-Ottlilienfeld, *Wirtschaft und Technik* (Grundriss der Sozialökonomik, II, Tübingen 1914), p. 216.

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To suppose that a socialist community could substitute calculations in kind for calculations in terms of money is an illusion. In a community that does not practice exchange, calculations in kind can never cover more than consumption goods. They break down completely where goods of higher order are concerned. Once society abandons free pricing of production goods rational production becomes impossible. Every step that leads away from private ownership of the means of production and the use of money is a step away from rational economic activity.

It was possible to overlook all this because such Socialism as we know at first hand exists only, one might say, in socialistic oases in what, for the rest, is a system based upon free exchange and the use of money. To this extent, indeed, we may agree with the otherwise untenable socialist contention — it is only employed for propagandist purposes — that nationalized and municipalized undertakings within an otherwise capitalist system are not Socialism. For the existence of a surrounding system of free pricing supports such concerns in their business affairs to such an extent that in them the essential peculiarity of economic activity under Socialism does not come to light. In State and municipal undertakings it is still possible to carry out technical improvements, because it is possible to observe the effects of similar improvements in similar private undertakings at home and abroad. In such concerns it is still possible to ascertain the advantages of reorganization because they are surrounded by a society which is still based upon private ownership in the means of production and the use of money. It is still possible for them to keep books and make calculations which for similar concerns in a purely socialist environment would be entirely out of the question.

Without calculation, economic activity is impossible. Since under Socialism economic calculation is impossible, under Socialism there can be no economic activity in our sense of the word. In small and insignificant things rational action might still persist. But, for the most part, it would no longer be possible to speak of rational production. In the absence of criteria of rationality, production could not be consciously economical.

For some time possibly the accumulated tradition of thousands of years of economic freedom would preserve the art of economic administration from complete disintegration. Men would preserve the old processes not because they were rational, but because they

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were sanctified by tradition. In the meantime, however, changing conditions would make them irrational. They would become uneconomical as the result of changes brought about by the general decline of economic thought. It is true that production would no longer be 'anarchical'. The command of a supreme authority would govern the business of supply. Instead of the economy of 'anarchical' production the senseless order of an irrational machine would be supreme. The wheels would go round, but to no effect.

Let us try to imagine the position of a socialist community. There will be hundreds and thousands of establishments in which work is going on. A minority of these will produce goods ready for use. The majority will produce capital goods and semi-manufactures. All these establishments will be closely connected. Each commodity produced will pass through a whole series of such establishments before it is ready for consumption. Yet in the incessant press of all these processes the economic administration will have no real sense of direction. It will have no means of ascertaining whether a given piece of work is really necessary, whether labour and material are not being wasted in completing it. How would it discover which of two processes was the more satisfactory? At best, it could compare the quantity of ultimate products. But only rarely could it compare the expenditure incurred in their production. It would know exactly — or it would imagine it knew — what it wanted to produce. It ought therefore to set about obtaining the desired results with the smallest possible expenditure. But to do this it would have to be able to make calculations. And such calculations must be calculations of value. They could not be merely 'technical', they could not be calculations of the objective use-value of goods and services. This is so obvious that it needs no further demonstration.

Under a system based upon private ownership in the means of production, the scale of values is the outcome of the actions of every independent member of society. Everyone plays a two-fold part in its establishment first as a consumer, secondly as producer. As consumer, he establishes the valuation of goods ready for consumption. As producer, he guides production-goods into those uses in which they yield the highest product. In this way all goods of higher orders also are graded in the way appropriate to them under the existing conditions of production and the demands of society. The interplay of these two processes ensures that the economic principle is observed

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in both consumption and production. And, in this way, arises the exactly graded system of prices which enables everyone to frame his demand on economic lines.

Under Socialism, all this must necessarily be lacking. The economic administration may indeed know exactly what commodities are needed most urgently. But this is only half the problem. The other half, the valuation of the means of production, it cannot solve. It can ascertain the value of the totality of such instruments. That is obviously equal to the value of the satisfactions they afford. If it calculates the loss that would be incurred by withdrawing them, it can also ascertain the value of single instruments of production. But it cannot assimilate them to a common price denominator, as can be done under a system of economic freedom and money prices.

It is not necessary that Socialism should dispense altogether with money. It is possible to conceive arrangements permitting the use of money for the exchange of consumers goods. But since the prices of the various factors of production (including labour) could not be expressed in money, money could play no part in economic calculations.¹

Suppose, for instance, that the socialist commonwealth was contemplating a new railway line. Would a new railway line be a good thing? If so, which of many possible routes should it cover? Under a system of private ownership we could use money calculations to decide these questions. The new line would cheapen the transportation of certain articles, and, on this basis, we could estimate whether the reduction in transport charges would be great enough to counterweigh the expenditure which the building and running of the line would involve. Such a calculation could be made only in money. We could not do it by comparing various classes of expenditure and savings in kind. If it is out of the question to reduce to a common unit the quantities of various kinds of skilled and unskilled labour, iron, coal, building materials of different kinds, machinery and the other things which the building and upkeep of railways necessitate, then it is impossible to make them the subject of economic calculation. We can make systematic economic plans only when all the

¹ Neurath too admitted this. (*Durch die Kriegswirtschaft zur Naturalwirtschaft*, München 1919, p. 216 *et seq.*) He asserts that every complete administrative economy (planned economy) is ultimately a natural economy (barter system). 'To socialize therefore means to advance the natural economy.' Neurath, however, did not recognize the insurmountable difficulties economic calculation would encounter in the socialist community.

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commodities which we have to take into account can be assimilated to money. True, money calculations are incomplete. True, they have profound deficiencies. But we have nothing better to put in their place. And under sound monetary conditions they suffice for practical purposes. If we abandon them, economic calculation becomes absolutely impossible.

This is not to say that the socialist community would be entirely at a loss. It would decide for or against the proposed undertaking and issue an edict. But, at best, such a decision would be based on vague valuations. It could not be based on exact calculations of value.

A stationary society could, indeed, dispense with these calculations. For there, economic operations merely repeat themselves. So that, if we assume that the socialist system of production were based upon the last state of the system of economic freedom which it superseded, and that no changes were to take place in the future, we could indeed conceive a rational and economic Socialism. But only in theory. A stationary economic system can never exist. Things are continually changing, and the stationary state, although necessary as an aid to speculation, is a theoretical assumption to which there is no counterpart in reality. And, quite apart from this, the maintenance of such a connection with the last state of the exchange economy would be out of the question, since the transition to Socialism with its equalization of incomes would necessarily transform the whole 'set' of consumption and production. And then we have a socialist community which must cross the whole ocean of possible and imaginable economic permutations without the compass of economic calculation.

All economic change, therefore, would involve operations the value of which could neither be predicted beforehand nor ascertained after they had taken place. Everything would be a leap in the dark. Socialism is the renunciation of rational economy.

§ 4

The capitalist economy

The terms 'Capitalism' and 'Capitalistic Production' are political catchwords. They were invented by socialists, not to extend knowledge, but to carp, to criticize, to condemn. To-day, they have only

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to be uttered to conjure up a picture of the relentless exploitation of wage-slaves by the pitiless rich. They are scarcely ever used save to imply a disease in the body-politic. From a scientific point of view, they are so obscure and ambiguous that they have no value whatever. Their users agree only in this, that they indicate the characteristics of the modern economic system. But wherein these characteristics consist is always a matter of dispute. Their use, therefore, is entirely pernicious, and the proposal to extrude them altogether from economic terminology, and to leave them to the matadors of popular agitation, deserves serious consideration.¹

If, nevertheless, we do desire to discover for them a precise application, we should start from the idea of capital calculations. And since we are concerned only with the analysis of actual economic phenomena, and not with economic theory — where 'capital' is often used in a sense specially extended for particular purposes — we must first ask what significance is attached to the term in business practice. There we find it used only for purposes of economic calculation. It serves to bring the original properties of a concern under one denomination, whether they consisted of money or were only expressed in money.² The object of its computations is to enable us to ascertain how much the value of this property has altered in the course of business operations. The concept of capital is derived from economic calculation. Its true home is accountancy — the chief instrument of commercial rationality. Calculation in terms of money is an essential element of the concept of capital.³

If the term capitalism is used to designate an economic system in which production is governed by capital calculations, it acquires a special significance for defining economic activity. Understood thus, it is by no means misleading to speak of Capitalism and capitalistic methods of production, and expressions such as the capitalistic spirit and the anti-capitalistic disposition acquire a rigidly circumscribed connotation. Capitalism is better suited to be the antithesis of Socialism than Individualism, which is often used in this way. As a rule those who contrast Socialism with Individualism proceed on the

¹ Passow, *Kapitalismus, eine begrifflich-terminologische Studie*, Jena 1918, p. 1 *et seq.* In the second Edition, published 1927, Passow expressed the opinion (p. 15, note 2), in view of the most recent literature, that the term 'Capitalism' might in time gradually lose the moral colouring.

² Karl Menger, *Zur Theorie des Kapitals* (S.A. aus den Jahrbüchern f. Nationalökonomie und Statistik, Vol. XVII), p. 41.

³ Passow, *op. cit.* (2nd Edition), p. 49 *et seq.*

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tacit assumption that there is a contradiction between the interests of the individual and the interest of society, and that, while Socialism takes the public welfare as its object, individualism serves the interests of particular people. And since this is one of the gravest sociological fallacies we must avoid carefully any form of expression which might allow it secretly to creep in.

According to Passow, where the term Capitalism is used correctly, the association it is intended to convey is usually bound up with the development and spread of large scale undertakings.¹ We may admit this — even if it is rather difficult to reconcile with the fact that people customarily speak of ‘Grosskapital’ and ‘Grosskapitalist’ and then of ‘Kleinkapitalisten’. But, if we recollect that only capital calculation made the growth of giant enterprise and undertakings possible, this does not in any way invalidate the definitions we propose.

§ 5

The narrower concept of the ‘economic’

The common habit of economists of distinguishing between ‘economic’ or ‘purely economic’ and ‘non-economic’ action is just as unsatisfactory as the old distinction between ideal and material goods. For willing and acting are unitary. All ends conflict among themselves and it is this conflict which ranges them in one scale. Not only the satisfaction of wishes, desires and impulses that can be attained through interaction with the external world, but the satisfaction also of ideal needs must be judged by one criterion. In life we have to choose between the ‘ideal’ and the ‘material’. It is, therefore, just as essential to make the former subject to a unitary criterion of values as the latter. In choosing between bread and honour, faith and wealth, love and money, we submit both alternatives to one test.

It is, therefore, illegitimate to regard the ‘economic’ as a definite sphere of human action which can be sharply delimited from other spheres of action. Economic activity is rational activity. And since complete satisfaction is impossible, the sphere of economic activity is coterminous with the sphere of rational action. It consists firstly in valuation of ends, and then in the valuation of the means leading to these ends. All economic activity depends, therefore, upon the

¹ Passow, *op. cit.* (2nd Edition), p. 132 *et. seq.*

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existence of ends. Ends dominate economy and alone give it meaning.

Since the economic principle applies to all human action, it is necessary to be very careful when distinguishing, within its sphere, between 'purely economic' and other kinds of action. Such a division is indeed indispensable for many scientific purposes. It singles out one particular end and contrasts it with all others. This end — at this point we need not discuss whether it is ultimate or not — is the attainment of the greatest possible product measured in money. It is, therefore, impossible to assign it a specially delimited sphere of action. It is true that for each individual it has such a delimited sphere, but this varies in extent according to the general outlook of the individual concerned. It is one thing for the man to whom honour is dear. It is another for him who sells his friend for gold. Neither the nature of the end nor the peculiarity of the means is what justifies the distinction, but merely the special nature of the methods employed. Only the fact that it uses exact calculation distinguishes 'purely economic' from other action.

The sphere of the 'purely economic' is nothing more and nothing less than the sphere of money calculation. The fact that in a certain field of action it enables us to compare means with minute exactitude down to the smallest detail means so much both for thought and action that we tend to invest this kind of action with special importance. It is easy to overlook the fact that such a distinction is only a distinction in the *technique* of thought and action and in no way a distinction in the ultimate end of action — which is unitary. The failure of all attempts to exhibit the 'economic' as a special department of the rational and within that to discover still another sharply defined department, the 'purely economic', is no fault of the analytical apparatus employed. There can be no doubt that great subtlety of analysis has been concentrated on this problem, and the fact that it has not been solved clearly indicates that the question is one to which no satisfactory answer can be given. The sphere of the 'economic' is plainly the same as the sphere of the rational: and the sphere of the 'purely economic' is nothing but the sphere in which money calculation is possible.

In the last resort the individual can acknowledge one end, and one end only: the attainment of the greatest satisfaction. This expression includes the satisfying of all kinds of human wants and desires, regardless whether they are 'material' or immaterial (moral).

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In the place of the word 'satisfaction' we could employ the word 'happiness', had we not to fear the misunderstandings, for which the controversy on Hedonism and Eudaemonism was responsible.

Satisfaction is subjective. Modern social philosophy has emphasized this so sharply in contrast to former theories that there is a tendency to forget that the physiological structure of mankind and the unity of outlook and emotion arising from tradition create a far-reaching similarity of views regarding wants and the means to satisfy them. It is precisely this similarity of views which makes society possible. Because they have common aims, men are able to live together. Against this fact that the majority of ends (and those the most important) are common to the great mass of mankind, the fact that some ends are only entertained by a few is of subordinate importance.

The customary division between economic and non-economic motives is, therefore, invalidated by the fact that on the one hand, the end of economic activity lies outside the range of economics, and on the other, that all rational activity is economic. Nevertheless, there is good justification for separating 'purely economic' activities (that is to say, activity susceptible of valuation in money) from all other forms of activity. For, as we have already seen, outside the sphere of money calculation there remain only intermediate ends which are capable of evaluation by immediate inspection: and once this sphere is left, it is necessary to have recourse to such judgments. It is the recognition of this necessity which provides the occasion for the distinction we have been discussing.

If, for example, a nation desires to make war, it is illegitimate to regard the desire as necessarily irrational because the motive for making war lies outside those customarily considered as 'economic' — as might be the case, e.g. with wars of religion. If the nation decides on the war with complete knowledge of all the facts because it judges that the end in view is more important than the sacrifice involved, and because it regards war as the most suitable means of obtaining it, then war cannot be regarded as irrational. It is not necessary at this point to decide whether this supposition is ever true or if it ever can be true. It is precisely this which has to be examined when one comes to choose between war and peace. And it is precisely with a view to introducing clarity into such an examination that the distinction we have been discussing has been introduced.

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It is only necessary to remember how often wars or tariffs are recommended as being 'good business' from the 'economic' point of view to realize how often this is forgotten. How much clearer would have been the political discussions of the last century if the distinction between the 'purely economic' and the 'non-economic' grounds of action had been kept in mind.

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

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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 greenhouses 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

⁷On 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, dockwarrants, 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 relended, 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

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.

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 deposit at Central Bank: + \$1,000,000	Demand deposits: + \$10,000,000

Central Bank	
Assets	Equity + Liabilities
House: + \$1,000,000	Demand deposits to banks: + \$1,000,000