



# THE MISES UNIVERSITY READER

COMPILED WITH AN  
INTRODUCTION BY JONATHAN NEWMAN



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# Introduction

**Jonathan R. Newman**

Mises University is the best week of the year. Students from all over the world come to the Mises Institute in Auburn, Alabama to learn Austrian economics. On top of the intensive week of lectures, seminars, and intellectual discussions over meals, we have a lot of fun and many life-long friendships are born.

This reader is intended to give a first-time student the groundwork for understanding the content delivered in the main lectures at Mises University. It introduces some of the “big names” in Austrian economics, like Carl Menger, Ludwig von Mises, and Murray Rothbard, with selections from their major works. Students will be ready to learn about the origins of the Austrian school, praxeology, and subjective value and market prices on day one. Terms like the division of labor, economic calculation, and time preference will not be new to them. Students will know about Mises’s business cycle theory and his devastating critique of socialism.

I’ve included a short “Context and Summary” before each reading to give the student a quick preview of the main ideas and to help the student see how the ideas presented in each reading are related. They should be read in order, because the earlier readings are prerequisites for understanding what comes later. For example, money, banking, interest, and capital theory are necessary components of Austrian business cycle theory. Fundamental concepts like market prices, the division of labor, and profit and loss should be understood before reading about the economic calculation problem of socialism.

It has been a pleasure putting this reader together because I have been able to relive and remember what it was like to learn these ideas for the first time. Learning Austrian economics at Mises University will change the way you view the world, and for many (including myself) it will inspire a life-long study of economics. So enjoy these readings and study them carefully!

## Reading 1

### The Birth of the Austrian School

#### Context and Summary

In our first reading, Professor Salerno introduces us to the founder of the Austrian school. While there were quite a few “proto-Austrians” claimed by the modern Austrian school, they are just that: “proto-Austrians.” Carl Menger stands as the indisputable founder of the Austrian school proper, being the first economist from Austria to elucidate and develop causal-realist economic theory using what would later be called the praxeological method.

Menger is commonly listed as a part of the triumvirate of independent discoverers of the concept of marginal utility in the history of economic thought (with William Stanly Jevons and Léon Walras). As Salerno details below, however, Menger’s contribution to the Marginalist Revolution was unique. Unlike Jevons and Walras, who employed mathematical methods to explain marginal utility, Menger grounded his ideas in a cause-and-effect, means-and-ends framework and considered action as undertaken by real humans who make subjective evaluations of discrete alternatives.

Not only do we find the birth of the Austrian school in the Marginalist Revolution, but also a significant “wrong turn,” in which Jevons and Walras set precedent for the mathematical modeling and overuse of statistics that plague mainstream economics today.

The Marginalist Revolution, therefore, was a watershed moment in the history of economic thought. Menger, Jevons, and Walras

inherited the mixed-bag of Classical economics, but only Menger clarified and extended economic thought on solid ground, paving the way for economists like Eugen von Böhm-Bawerk, Ludwig von Mises, F.A. Hayek, and Murray Rothbard to make their own advances. Any serious study of Austrian economics must include the foundation laid by Menger.

Salerno's biography of Menger is edited for length. I recommend interested students read the full-length work in *15 Great Austrian Economists* edited by Randall Holcombe.



# Carl Menger: The Founding of the Austrian School

Joseph T. Salerno

Despite the many illustrious forerunners in its six-hundred-year prehistory, Carl Menger was the true and sole founder of the Austrian School of economics *proper*. He merits this title if for no other reason than that he created, out of whole cloth, the system of value and price theory that constitutes the core of Austrian economic theory. But Menger did more than this: he also originated and consistently applied the correct, praxeological method for pursuing theoretical research in economics. Thus, in its method and core theory, Austrian economics always was and will forever remain *Mengerian* economics.

Menger's position as the originator of the fundamental doctrines of Austrian economics has been recognized and hailed by all eminent authorities on the history of Austrian economics. In his eulogy of Menger written upon the latter's death in 1921, Joseph Schumpeter averred that "Menger is nobody's pupil and what he created stands. . . . Menger's theory of value, price, and distribution is the best we have up to now."<sup>1</sup> Ludwig von Mises wrote that

What is known as the Austrian School of Economics started in 1871 when Carl Menger published a slender volume under the title *Grundsätze der Volkswirtschaftslehre* [Principles of economics]. . . . Until the end of the [1870s]

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<sup>1</sup> Joseph A. Schumpeter, "Carl Menger," *Ten Great Economists: From Marx to Keynes* (New York: Oxford University Press, 1969), p. 86.

there was no “Austrian School.” There was only Carl Menger.<sup>2</sup>

For F. A. Hayek, the Austrian School’s

fundamental ideas belong fully and wholly to Carl Menger. . . . [W]hat is common to the members of the Austrian School, what constitutes their peculiarity and provided the foundations for their later contributions, is their acceptance of the teaching of Carl Menger.<sup>3</sup>

While there is no dispute regarding Menger’s role as creator of the defining principles of Austrian economics, there does exist some confusion regarding the precise nature of his contribution. It is not always fully recognized that Menger’s endeavor to radically reconstruct the theory of price on the basis of the law of marginal utility was not inspired by a vague subjectivism in outlook. Rather, Menger was motivated by the specific and overarching aim of establishing a causal link between the subjective values underlying the choices of consumers and the objective market prices used in the economic calculations of businessmen. The classical economists had formulated a theory attempting to explain market prices as the outcome of the operation of the laws of supply and demand, but they were compelled to restrict their analysis to the monetary calculations and choices of businessmen while neglecting consumer choice for the lack of a satisfactory theory of value. Their theory of “calculated action” was correct as far as it

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<sup>2</sup> Ludwig von Mises, *The Historical Setting of the Austrian School of Economics* (New Rochelle, N.Y.: Arlington House, 1969), pp. 9–10. Mises also wrote that “in 1871 the writings of Carl Menger and William Stanley Jevons inaugurated a new epoch of economic studies” (Ludwig von Mises, *Theory and History: An Interpretation of Social and Economic Evolution* [Auburn, Ala.: Ludwig von Mises Institute, 1985], p. 124).

<sup>3</sup> F.A. Hayek, “Carl Menger (1840–1921),” in *The Fortunes of Liberalism: Essays on Austrian Economics and the Ideal of Freedom*, vol. 4, *The Collected Works of F.A. Hayek*, Peter G. Klein, ed. (Chicago: University of Chicago Press, 1992), p. 62.

went, and was used to telling effect in demolishing the protectionist and interventionist schemes of sixteenth- and seventeenth-century mercantilists and the statist fantasies of nineteenth-century Utopian socialists.<sup>4</sup> Thus, Menger's ultimate goal was not to destroy classical economics, as has sometimes been suggested, but to complete and firm up the classical project by grounding the theory of price determination and monetary calculation in a general theory of human action.

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<sup>4</sup> This weakness of classical economics was noted by Mises: Because the classical economists were able to explain only the action of businessmen and were helpless in the face of everything that went beyond it, their thinking was oriented toward bookkeeping, the supreme expression of the rationality of the businessman (but not that of the consumer). (Ludwig von Mises, *Epistemological Problems of Economics*, George Reisman, trans. [New York: New York University Press, 1981], p.175)

But, as Mises also recognized, this theory, though incomplete, was an essential step forward in the construction of the comprehensive system of praxeological economics:

[M]ercantilists had placed goods in the center of economics, which in their eyes was a theory of objective wealth. It was the great achievement of the Classics in this respect that beside the goods they set up economic man [i.e., the calculating businessman]. They thus prepared the way for modern Economics which puts man and his subjective valuations into the center of its system. (Ludwig von Mises, *Socialism: An Economic and Sociological Analysis*, J. Kahane, trans. [Indianapolis, Ind.: LibertyClassics, 1981], p. 293)

Indeed, the classical economic theory was effectively a praxeological theory that dealt narrowly with actions whose means and ends were calculable in monetary terms: "The first comprehensive system of economic theory, that brilliant achievement of the classical economists, was essentially a theory of calculated action" (Ludwig von Mises, *Human Action: A Treatise on Economics* [Chicago: Henry Regnery, 1966], p. 231).

## Life and Work<sup>5</sup>

Carl Menger was born on February 28, 1840, in Galicia, which is today a part of Poland. He was the scion of an old Austrian family which included craftsmen, musicians, civil servants, and army officers, and which had emigrated from Bohemia a generation before his birth. His father, Anton, was a lawyer, and his mother, Caroline (née Gerzabek), was the daughter of a wealthy Bohemian merchant. He had two brothers, Anton and Max: the former, an eminent socialist author and fellow professor in the Law Faculty of the University of Vienna; and the latter, a lawyer and a Liberal deputy in the Austrian Parliament. The Menger family had been ennobled, but Carl himself dropped the title “Von” in early adulthood.

After studying economics at the Universities of Prague and Vienna from 1859 to 1863, Menger went to work as a journalist in the summer of 1863. The young Menger quickly attained prominence in the journalistic profession, writing a number of novels and comedies (which were apparently serialized for newspapers) and, in 1865, meeting and sharing confidences with the Liberal Austrian prime minister R. Belcredi. In the Fall of 1866, he left the *Wiener Zeitung*, an official newspaper for which he was then working as a market analyst, in order to prepare for his oral examination for a doctorate in law. After passing this examination, Menger went to work as an apprentice lawyer in May 1867, receiving his law degree from the University of Krakow in

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<sup>5</sup> Details of Menger’s life can be found in Hayek, “Carl Menger”; Erich W. Streissler, “The Influence of German Economics on Menger and Marshall,” in *Carl Menger and His Legacy in Economics*, Bruce J. Caldwell, ed. (Durham, N.C.: Duke University Press, 1990); Streissler, “Menger’s Treatment of Economics in the Rudolph Lectures,” in *Carl Menger’s Lectures to Crown Prince Rudolf Erich*, W. Streissler and Monika Streissler, eds. (Cheltenham, U.K.: Edward Elgar, 1994), pp. 3–25; and Kiichiro Yagi, “Menger’s *Grundsätze* in the Making,” *History of Political Economy* 25 (Winter 1993): 697–724.

August 1867. However, he soon returned to work as an economic journalist and helped to found a daily newspaper.<sup>6</sup>

It was in September 1867, immediately after receiving his law degree, that, reported Menger, he “threw [himself] into political economy.”<sup>7</sup> Over the next four years, he painstakingly worked out the system of thought that would so profoundly reshape economic theory when it came to fruition in 1871 with the publication of the *Principles*. As an economic journalist, Menger had observed a sharp contrast between the factors that classical economics had identified as most important in explaining price determination and the factors that experienced market participants believed exerted the greatest influence in shaping the pricing process. Whether or not this observation was the original inspiration for Menger’s sudden and deep absorption in economic questions after 1867, it surely is consistent with his ultimate goal of reconstructing price theory.<sup>8</sup>

In 1870, Menger obtained a civil service appointment in the press department of the Austrian cabinet (the *Ministerratspraesidium*), which was then composed of members of the Liberal Party. With a published work in hand and the successful completion of his *Habilitation* examination in 1872, Menger fulfilled the requirements for an appointment as a *Privatdozent*—basically an unpaid lecturer with complete professorial privileges—in the Faculty of Law and Political Science at the University of Vienna.<sup>9</sup>

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<sup>6</sup> This was the *Wiener Tagblatt*. Its successor, the *Neue Wiener Tagblatt*, established itself as one of Vienna’s most influential newspapers for many years to come.

<sup>7</sup> Quoted in Yagi, “Menger’s *Grundsätze*,” p. 700.

<sup>8</sup> See Hayek, “Carl Menger,” p. 69.

<sup>9</sup> Mises describes the institution of the *Privatdozent* in the following terms: A doctor who had published a scholarly book could ask the faculty to admit him as a free and private teacher of his discipline; if the faculty decided in favor of the petitioner, the consent of the Minister [of Worship and Instruction] was still required; in practice this consent was [before the early

Upon his promotion to the position of a paid, full-time associate professor (*Professor Extraordinarius*)<sup>10</sup> in Autumn 1873, Menger resigned from the ministerial press department, but continued his private-sector journalistic activities until 1875.

In 1876, Menger won an appointment as one of the tutors of the eighteen-year-old Crown Prince, Rudolf von Habsburg. Over the course of the next two years, Menger tutored Rudolf while traveling with him throughout Europe.<sup>11</sup> Upon his return to Vienna, Menger was appointed by the Emperor Franz Joseph, Rudolf's father, to the Chair of Political Economy in Vienna's Law Faculty, where he took up his duties in 1879 as a *Professor Ordinarius* or Full Professor.

Secure in a prominent academic position, Menger was now able to concern himself with formulating a clarification and defense of the theoretical method he had adopted in his *Principles*. The latter book had been ignored in Germany because, by the 1870s, German economics had come almost completely under the sway of the younger Historical School, which was led by Gustav Schmoller and was bitterly hostile to Menger's (and the Classical School's) "abstract" style of economic theorizing. The fruits of Menger's methodological research were published in 1883 in a book entitled *Untersuchungen über die Methode der Sozialwissenschaften und der politischen Ökonomie insbesondere* (Investigations into the method of the social sciences with special

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1880s] always given. The duly admitted *Privatdozent* was not, in this capacity, a civil servant. Even if the title of professor was accorded to him, he did not receive any compensation from the government. A few *Privatdozents* could live from their own funds. Most of them worked for their living. (Mises, *Historical Setting of the Austrian School*, p.13)

<sup>10</sup> It is Streissler, in his "Influence of German Economics," p. 4, who renders this academic rank as "associate professor" in English; Mises, in *Historical Setting of the Austrian School*, p.11, translates it as "assistant professor."

<sup>11</sup> Menger's lectures to the Crown Prince, as recorded in the latter's notebooks, can be found in Streissler and Streissler, eds., *Carl Menger's Lectures to Crown Prince Rudolf*.

reference to economics).<sup>12</sup> Where the earlier book had been coldly ignored, the *Investigations* precipitated a furor among German economists, who heatedly responded with derisive attacks on Menger and the “Austrian School.” In fact, this latter term was originated and applied by the German Historicists in order to emphasize the isolation of Menger and his followers from the mainstream of German economics. Menger responded in 1884 with a scathing pamphlet, *Irrthümer des Historismus in der deutschen Nationalökonomie* (The errors of historicism in German economics), and the famous *Methodenstreit*, or methodological debate, between the Austrian School and the German Historical School was on.<sup>13</sup>

In the meantime, Menger’s writing and teaching had begun by the mid-1870s to attract a number of brilliant followers, most notably Eugen von Böhm-Bawerk and Friedrich von Wieser. Between 1884 and 1889, the works of these men and of numerous others also influenced by Menger began to pour forth in great abundance, leading to a coalescence of an identifiable Austrian School. By the late 1880s, Mengerian doctrines were also being introduced to non-German speaking economists in France, the Netherlands, the United States, and Great Britain.

After he retired from active participation in the *Methodenstreit* in the late 1880s, Menger’s interests shifted back from methodological concerns to questions of pure economic theory and applied economics. In 1888, he published a notable article on capital theory, *Zur Theorie des Kapitals*. Also during this period, Menger served as the leading member of a commission charged with reforming the Austrian monetary system, a role which

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<sup>12</sup> Carl Menger, *Investigations into the Method of the Social Sciences with Special Reference to Economics*, Louis Schneider, ed., Francis J. Nock, trans. (New York: New York University Press, 1985).

<sup>13</sup> On the conflict between the Austrian and German Historical Schools, see Mises, *Historical Setting of the Austrian School*, pp. 20–39. For a critique of historicism in all its forms, see Mises, *Theory and History*, pp. 198–239.

stimulated him to ponder deeply problems of monetary theory and policy. The result was a spate of articles on monetary economics published in 1892, including *Geld* (Money), a pathbreaking contribution to monetary theory.<sup>14</sup> Menger continued in academic life until he resigned his professorship in 1903, but, unfortunately, despite the fact that he lived until 1921, there were no more major works to come from his pen.

### **The Classical School and the State of Economic Theory on the Eve of the Publication of Menger's *Principles***

When Menger seriously turned his attention to economic theory in 1867, there existed a mighty though deeply flawed system of economic theory that had been constructed mainly by the British Classical School, namely David Hume, Adam Smith, and David Ricardo. To their undying credit, the classical economists were successful in demonstrating that price phenomena—product prices, wages, and interest rates—were not the product of historical accident or the arbitrary whim of sellers, but were determined by universal and immutable economic law, viz., the law of supply and demand. They also showed how prices, through the calculations and actions of profit-seeking businessmen, effectively regulated the production process. In those industries where the selling price exceeded the average cost of the product by a greater than normal margin, business owners were motivated by prospective profits to expand their output from existing enterprises, while additional output was forthcoming from new enterprises initiated by capitalist-investors eager to share in the supranormal profits. Conversely, in those industries where product prices failed to cover per unit costs, the universal quest for profit and aversion to loss among businessmen led existing firms to contract their output or discontinue production altogether, while discouraging entry by

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<sup>14</sup> For a survey of these and other writings of Menger on money, see Hans F. Sennholz, "The Monetary Writings of Carl Menger," in *The Gold Standard: Perspectives in the Austrian School*, Llewellyn H. Rockwell, Jr., ed. (Auburn, Ala.: Ludwig von Mises Institute, 1992), pp.19–34.



new competitors into the industry. Moreover, as the production of goods expanded in those industries where higher-than-normal profits were being reaped, supply increased relative to demand and the profit rate tended to diminish back to a normal level as prices declined toward their “natural” level in relation to production costs. In the case of industries where production was shrinking due to losses, the decrease in supply relative to demand drove prices up toward (and beyond) average costs to their natural level, causing losses to disappear and a normal level of profit to emerge in the process.

In the classical view, then, both prices and production behaved according to definite laws of cause and effect. Prices were determined by the interaction of all market participants, so that the actual price of any good reflected the momentary equilibrium of supply and demand; the allocation of resources to the various processes of production was governed by the calculations and choices of profit-seeking (and loss-avoiding) businessmen, which meant that, in the long run, resources were allocated among the various branches of production so as to ensure a tendency to equalize at some normal or natural level the “rate of profit” or rate of return on all capital investment. Classical economics, therefore, did indeed contain an embryonic theory of human action, which was incomplete because it focused narrowly on the calculating businessman, the proverbial “economic man” who “bought in the cheapest and sold in the dearest markets.” In other words, the classical theory of prices and production was a theory of calculable action only, i.e., of action in the marketplace, a realm where all means and ends, costs and benefits, and profits and losses could be calculated in terms of money. While this was a great achievement and a bold step forward in economic science, it left out of account the subjective and nonquantifiable valuations and preferences of the consumer, the *raison d'être* of all economic activity.

To explain this neglect, we turn to the aforementioned great flaw in classical economics: its value theory. In attempting to analyze the value of goods as a foundation for its theory of price, the classical economists commenced by focusing on abstract categories or classes of goods, e.g., bread, iron, diamonds, water, etc., and their general usefulness to humankind instead of focusing on a specific quantity of a concrete good and its perceived importance to a choosing individual. They were thus at a loss to resolve the famous “paradox of value”: or why the market price of one pound of bread is almost negligible compared to the price of an equal weight of gem-quality diamonds, despite the fact that bread is indispensable in sustaining human life while diamonds are useful only for aesthetic enjoyment or ostentatious display. To proceed any further in their analysis, the classical economists were thus forced to sever value into two categories, “use value” and “exchange value.” The former referred to the importance of a good in serving human wants, while the latter indicated simply the market price of the good. Dismissing use value as a given and unexplained precondition of exchange value, they went on to concentrate their analysis exclusively on exchange value. This approach to value theory naturally prevented the classical economists from developing a complete theory of human action that integrated valuations and choices of consumers with the calculations and choices of businessmen.

Unable to ground their price theory in the subjective values of consumers, the classical economists turned to objective costs of production to close their theoretical system and, in so doing, accorded the technical conditions under which goods are produced equal status with human choices as the *active* determinants of economic activity. This resulted in a bifurcated and contradictory price theory. According to this theory, as we noted above, market prices—prices that were actually paid in everyday transactions—are determined by supply and demand. However, only supply was actually explained, as the result of the

monetary calculations of profit-maximizing businessmen, while the demands for the various consumer goods were taken as given. While human choices determined day-to-day market prices for all goods, in the long run the exchange value of “reproducible” goods was driven inexorably toward the “natural” price established by their costs of production, which themselves remained unexplained. “Scarcity” goods, those whose supplies could not be augmented by the production process, such as antiques, rare coins, paintings of the Old Masters, and so on, were treated as a separate and relatively unimportant category of goods whose exchange values were governed entirely by supply and demand. Thus, the split in classical value and price theory. But there also existed an unresolved contradiction, at least in the case of reproducible goods: although the emergence of actual prices at every moment are completely accounted for by human calculation and action, they also harbor a mysterious tendency to gravitate toward a level determined by factors wholly unrelated to human volition.

This was the unsatisfactory state in which Menger found economic theory in the late 1860s. It is true that a subjective-value school, which traced its roots back through J.B. Say, A.R.J. Turgot, and Richard Cantillon to the Scholastic writers of the Middle Ages, flourished on the Continent during the whole period of the Classical School’s ascendancy in Great Britain. And Menger himself, a renowned bibliophile, was nurtured and steeped in the writings of the German-language branch of this subjective-value tradition. However, while writers associated with this tradition repeatedly emphasized that “utility” and “scarcity” are the sole determinants of market prices and, in some cases, even formulated the concept of marginal utility, none before Menger was able to

systematically elaborate these insights into a comprehensive theory of the pricing process and of the economy in general.<sup>15</sup>

## Menger's Reconstruction of Economic Theory<sup>16</sup>

### *The Nature and Scope of Economic Theory*

As noted above, Menger emphatically did not intend to overthrow classical economics. He was quite comfortable with its emphasis on the universality and immutability of economic law, its theory of

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<sup>15</sup> For a sweeping and erudite treatment of the entire pre-Mengerian subjective-value tradition see Murray N. Rothbard, *Economic Thought Before Adam Smith*, vol. 1, *An Austrian Perspective on the History of Economic Thought* (Cheltenham, U.K.: Edward Elgar, 1995), pp. 65–133. Alejandro A. Chafuen, *Christians for Freedom: Late Scholastic Economics* (San Francisco: Ignatius Press, 1986), provides the definitive account of the Scholastic pioneers in this tradition. Murray N. Rothbard, “New Light on the Prehistory of the Austrian School,” in *The Foundations of Modern Economics*, Edwin G. Dolan, ed. (Kansas City: Sheed and Ward, 1976), pp. 52–74, is also a noteworthy source on the Scholastic contributions. Joseph T. Salerno, “The Neglect of the French Liberal School in Anglo-American Economics: A Critique of Received Explanations,” *Review of Austrian Economics* 2 (1987): 113–56, deals with Say’s successors in the French Liberal School, while Streissler, “Influence of German Economics,” details the German subjectivist influences on Menger.

<sup>16</sup> The nearly simultaneous and completely independent co-discovery of the principle of marginal utility in the early 1870s by Menger, the Briton William Stanley Jevons, and the Frenchman Léon Walras is generally referred to as the “marginalist revolution.” However, although this principle played an essential role in Menger’s reconstruction of economic theory, as we shall see, the method by which he arrived at the principle and the use he made of it mark Mengerian economics as paradigmatically distinct from the theoretical systems that developed out of Jevons’s and Walras’s writings. On this point, see especially Emil Kauder, *A History of Marginal Utility Theory* (Princeton, N.J.: Princeton University Press, 1965); and William Jaffé, “Menger, Jevons, and Walras De-Homogenized,” *Economic Inquiry* 14 (December 1976): 511–24. On the marginalist revolution in general, see Richard S. Howey, *The Rise of the Marginal Utility School: 1870–1889* (New York: Columbia University Press, 1989); and *The Marginal Revolution in Economics: Interpretation and Evaluation*, R.D. Collison Black, A.W. Coats, and Craufurd D.W. Goodwin, eds. (Durham, N.C.: Duke University Press, 1973).

short-run price determination, and the laissez-faire policy conclusions it derived therefrom.<sup>17</sup> Rather, Menger's intentions were to reconstruct classical economics on firmer foundations by grounding the supply-and-demand theory of price and the theory of monetary calculation in the choices and actions of consumers and to repair its superstructure by healing the rift between the theory of price and the theory of distribution. Menger boldly proclaimed his intention of subsuming all the branches of economics under a reconstructed price theory in his Preface to *Principles*, writing

I have devoted special attention to the investigation of the causal connections between economic phenomena involving products and the corresponding agents of production, not only for the purpose of establishing a price theory based upon reality and placing all price phenomena (including interest, wages, ground rent, etc.) together under one unified point of view, but also because of the important insights we thereby gain into many other economic processes heretofore completely misunderstood.<sup>18</sup>

Menger recognized that at the center of “a price theory based upon reality” and of economic theory in general is human action—and human action alone. As Menger epigrammatically put it in preliminary notes written while *Principles* was in preparation: “Man himself is the beginning and the end of every economy” and “Our science is the theory of a human being's ability to deal with his wants.”<sup>19</sup> While the centrality of human want satisfaction had

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<sup>17</sup> Menger's attitude toward the Classical School is reflected in the fact that “The whole framework of the lectures [to Crown Prince Rudolf] and most of the arguments are taken from Adam Smith's . . . *Wealth of Nations*.” See Streissler, “Menger's Treatment of Economics in the Rudolf Lectures,” p. 6.

<sup>18</sup> Menger, *Principles*, p. 49.

<sup>19</sup> Menger, quoted in Yagi, “Menger's *Grundsätze*,” pp. 720–21.

been affirmed by earlier writers in the subjective-value tradition,<sup>20</sup> Menger alone was successful in forging a method of economic theorizing—it was later to be dubbed “praxeology” by Ludwig von Mises—that was consistent with this insight. Thus, he began his scientific inquiry by meditating upon the nature of human striving to satisfy wants, and then deducing its immediate implications. By proceeding in this way, Menger was able to perceive immediately that the process of want satisfaction is not purely cognitive and internal to the human mind, but depends crucially upon the external world and, therefore, upon the law of cause and effect. This explains why Menger began his economic treatise with the statement that “All things are subject to the law of cause and effect.”<sup>21</sup> Without reference to this great law of objective reality, the human striving to attain goals is logically inconceivable, because, as Menger argued, subjective states of satisfaction are links in the same causal chain that includes objective states of the world:

One’s own person, moreover, and any of its states are links in this great universal structure of relationships. It is impossible to conceive of a change of one’s person from one state to another in any way other than one subject to the law of causality. If, therefore, one passes from a state of need to a state in which the need is satisfied, sufficient causes for this change must exist. There must be forces in operation within one’s organism that remedy the disturbed state, or there must be external things acting upon it that by their nature are capable of producing the state we call satisfaction of our needs.<sup>22</sup>

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<sup>20</sup> Especially Frédéric Bastiat, William E. Hearn, Amasa Walker, and Arthur Latham Perry. See Salerno, “Neglect of the French Liberal School” for a discussion of these economists.

<sup>21</sup> Menger, *Principles*, p. 51.

<sup>22</sup> *Ibid.*, pp. 51–52. As Mises points out in *Human Action*, pp. 22–23,

But the direction of causation is not one-way, from objective states of the world to subjective states of satisfaction. For Menger, it is two-way, because, by conceiving the law of cause and effect, man is able to recognize his total dependence on the external world, and transform the latter into means to attain his ends. Man, himself, thus becomes the ultimate cause—as well as the ultimate end—in the process of want satisfaction. In his notes, Menger expressed and emphasized the causal interrelationships between the subjective and the objective aspects of action by means of parallel trinities of linked concepts: “ends-means-realization/ man-external world-subsistence/ wants-goods-satisfaction.”<sup>23</sup>

### *The Theory of Goods*

Menger’s emphasis on the law of causality led him to devote the first twenty-five pages of the *Principles* to explicating “the general theory of the good,” in the course of which he radically

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Man is in a position to act because he has the ability to discover causal relations which determine change and becoming in the universe. Acting requires and presupposes the category of causality. . . . [I]n order to act, man must know the causal relationship between events, processes, or states of affairs. And only as far as he knows this relationship, can his action attain the ends sought.

<sup>23</sup> Menger, quoted in Yagi, “Menger’s *Grundsätze*,” p. 704. These conceptual trinities, especially the last, reflect the influence of the French Liberal economist Frédéric Bastiat on Menger, who cited Bastiat twice in his *Principles*. “Wants, Efforts, Satisfaction” was the title of the second chapter of Bastiat’s unfinished treatise on political economy. See Frédéric Bastiat, *Economic Harmonies*, George B. de Huszar, ed., W. Hayden Boyers, trans. (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1964), pp. 20–33. Bastiat also used these three terms in his definition of the science of political economy (p. 31). Elsewhere in the chapter, Bastiat stated that “The subject of political economy is man” (p. 25), words that resound in Menger’s statement, quoted above in the text, that “Man himself is the beginning and the end of every economy.” For Bastiat and the Liberal School’s profound influence on Continental economics in the nineteenth century, see Salerno, “Neglect of the French Liberal School,” pp. 119–24.

reformulated the concept of a good in praxeological terms.<sup>24</sup> For Menger, goods are those elements of the external world that are integral to the causal process of want satisfaction and upon which action operates.<sup>25</sup> Once again, passages in Menger's pre-*Principles* notebooks are illuminating:

Our general dependence on the external world: in its entirety the external world is presented to us as a whole in which we live. Dependence on *certain portions* of this external world, or on some relationships in it, which must be brought into *certain relations* to us. To this end, these portions must be particularly *suited*. Such *things* are called goods, insofar as they have the capacity to satisfy human wants (serving ends amounts to the same thing).<sup>26</sup>

Having identified the nature of a good, Menger proceeds to elucidate what he calls “the causal connections between goods,” with the goal of identifying “the place that each good occupies in the causal nexus of goods.”<sup>27</sup> “Goods of the lowest order” are consumer goods, like bread for instance, which are used to directly satisfy human wants. In Menger's words, “the causal connection between bread and the satisfaction of one of our needs is . . . a direct one.” Factors of production, on the other hand, are “goods

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<sup>24</sup> It was standard practice for German textbook writers before Menger to begin by discussing “the theory of goods.” See Yagi, “Menger's *Grundsätze*,” p. 703; and Streissler, “Influence of German Economics,” p. 49.

<sup>25</sup> Mises, in *Human Action*, p. 93, referred to goods as “the substratum of action.” From a doctrinal point of view, Hayek, in “Carl Menger,” p. 70, noted that

[Menger's] careful initial investigation of the causal relationship between human needs and the means for their satisfaction . . . is typical of the particular attention which, the widespread impression to the contrary notwithstanding, the Austrian School has always given to the technical structure of production.

<sup>26</sup> Menger, quoted in Yagi, “Menger's *Grundsätze*,” p. 705. [Emphasis is Menger's.]

<sup>27</sup> Menger, *Principles*, p. 56.



of higher order,” having only “an indirect causal connection with human needs.” For example, flour and the services of ovens and bakers’ labor are second-order goods whose goods-character stems from the fact that, when they are combined in the process of production to yield a quantity of bread, they operate as an indirect cause of the satisfaction of the human want for bread. Likewise, wheat, grain mills, and millers’ labor constitute third-order goods which attain their goods-character from their usefulness in the production of second-order goods. The same applies to fourth- and fifth-order goods in the production of bread. In short, according to Menger,

The process by which goods of higher order are progressively transformed into goods of lower order and by which these are directed finally to the satisfaction of human needs is... not irregular but subject, like all other processes of change, to the law of causality.<sup>28</sup>

Thus, it is their position in this causal order of want satisfaction that endows elements of the external world with their goods-character.

Menger draws a further distinction: between those goods whose available quantity exceeds the amount necessary to satisfy all human wants for them, and those available in a quantity that is insufficient to fully satisfy human wants for them. The former Menger designates “non-economic goods,” and the latter, “economic goods.” In the case of non-economic goods, because of their superabundance relative to wants, people need take no definite action with regard to them. With regard to economic goods, however, an individual must undertake to *economize* them in order to satisfy his wants for them as fully as possible. Economizing involves, among other things, ranking the wants for a particular good according to their greatest urgency or importance and then choosing to allocate units of the good only

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<sup>28</sup> Ibid., p. 67.

to those uses that serve the most important wants, while leaving unsatisfied the less important wants. Also, just as in the case of their goods-character, the economic character of higher-order goods also derives from the economic character of the lower-order good which they cooperate in producing. Thus, for example, in a region where pure water is naturally superabundant for all human purposes, neither water nor man-made reservoirs and water pumps, pipes, and filters need be economized. For Menger, then, the operation of economizing is nothing more or less than purposive behavior or *action*, as this latter term is understood by Mises and the proponents of the modern praxeological paradigm. Both Menger's "economizing man" and Mises's "acting man" apply scarce means so as to attain their most highly valued ends. Inherent in the idea of economizing is the notion of *property*. For Menger, "human economy and property have a joint economic origin," which is rooted in the condition of scarcity.<sup>29</sup> Thus, property is neither "an arbitrary invention" nor merely an aggregation of heterogeneous objects. It is a praxeological category that refers to a purposively created structure of goods that is adjusted through the operations of economizing to serve the structure of ends aimed at by an individual actor. According to Menger,

[A person's] property is not . . . an arbitrarily combined quantity of goods, but a direct reflection of his needs, an integrated whole, no essential part of which can be diminished or increased without affecting realization of the end it serves.<sup>30</sup>

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<sup>29</sup> Ibid., p. 97.

<sup>30</sup> Ibid., p. 76.

It is no exaggeration to say that Mengerian economics is as much about goods and property as it is about knowledge and expectations.<sup>31</sup>

Menger's analyses of the order and of the economic character of goods taken together demolish the foundations of the classical cost-of-production theory. First, the proposition that the economic character of lower-order goods is derived from the fact that the goods of a higher order employed in producing them possess an economic character established prior to the causal production process, according to Menger,

contradict[s] . . . all experience, which teaches us that, from goods of higher order whose economic character is beyond all doubt, completely useless things may be produced, and in consequence of economic ignorance actually are produced.<sup>32</sup>

In other words, the cost-of-production theory is at a loss in explaining how scarce and valuable resources can be and are used to produce products whose market value is zero because they are not useful, directly or indirectly, in serving human wants. This problem aside, the fatal flaw in a theory which seeks to explain the economic character of lower-order goods in terms of the economic character of goods of a higher order is that it is merely a "pseudo-explanation." As Menger argued,

If we explain the economic character of goods of first order by that of goods of second order, the latter by the economic character of goods of third order, this again by the economic character of goods of fourth order, and so on, the solution of the problem is not advanced fundamentally by a single step, since the question as to

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<sup>31</sup> I am indebted to Hans-Hermann Hoppe for first suggesting to me that goods and property play a central, though egregiously underappreciated, role in Mengerian economics.

<sup>32</sup> Menger, *Principles*, p.108.

the last and true cause of the economic character of goods always still remains unanswered.<sup>33</sup>

### *The Theory of Value*

This brings us to the question of value which so vexed, and ultimately defeated, the classical economists. Because they were tragically unable to grasp that specific quantities and not entire classes of goods were the object of human action, the classical economists dropped use value from their analysis. But Menger, with his unblinking focus on individual action, easily recognized the profound significance of the concept of the *marginal unit*—the quantity of a good relevant to choice—for the whole of economic theory.

In his notes, Menger compared “species value,” the value of an abstract class of goods, to the “individual value” or “concrete value” attaching to specific units of a good. Dismissing the former as completely irrelevant to action in the real world, Menger argued that,

In the case of species value, we compare, on the one hand, the properties of a good without considering its quantity, and on the other, human wants without taking into account individuality. . . . In real life there are only concrete goods and concrete wants.<sup>34</sup>

In fact, the subjective ranking of the different satisfactions yielded by a definite quantity of a good is implied by the very notion of action. As Menger explained:

The varying importance that satisfaction of separate concrete needs has for men is not foreign to the consciousness of any economizing man. . . . Wherever men live, and whatever level of civilization they occupy, we can observe how economizing individuals weigh the

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<sup>33</sup> Ibid.

<sup>34</sup> Menger, quoted in Yagi, “Menger’s *Grundsätze*,” p. 709.

relative importance of satisfaction of their various needs in general, how they weigh especially the relative importance of the separate acts leading to the more or less complete satisfaction of each need, and how they are finally guided by the results of this comparison into activities directed to the fullest possible satisfaction of their needs (economizing).<sup>35</sup>

By cogitating on the essence of economizing or action, Menger was thus able to conclusively demonstrate that the want for any good is actually a series of wants for a definite unit of the good to the satisfaction of which the individual is constrained by scarcity to attach differing degrees of importance. And, by implication, only actual units of a good are relevant to human choice: “Not species as such, but only concrete things are *available* to economizing individuals. Only the latter, therefore, are *goods*, and only goods are the *objects of our economizing* and of our *valuation*.”<sup>36</sup>

Having established that only specific wants and specific units of goods pertain to the valuational process, Menger proceeded to define value as “the importance that individual goods or quantities of goods attain for us because we are conscious of being dependent on command of them for the satisfaction of our needs.”<sup>37</sup> In other words, “the value of all goods is merely an imputation of this importance [of satisfying our needs] to economic goods.”<sup>38</sup> It follows, then, for Menger, that “value does not exist outside the consciousness of men. . . . [T]he value of goods . . . is entirely subjective in nature.”<sup>39</sup> One would be wrong to interpret this last statement as a radical subjectivist dismissal of the realm of external reality. For Menger’s emphatic distinction between the value of a thing and the thing itself is actually

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<sup>35</sup> Menger, *Principles*, p.128.

<sup>36</sup> *Ibid.*, p. 116, n. 3

<sup>37</sup> *Ibid.*, p. 115.

<sup>38</sup> *Ibid.*, p. 122.

<sup>39</sup> *Ibid.*, p. 121.

intended as a means of elucidating the indissoluble ontological link between the realm of cognition and the realm of objective causal processes that comes into being by virtue of valuation and economizing. The value of goods is therefore nothing arbitrary, but always the necessary consequence of human knowledge that the maintenance of life, of well-being, or of some ever so insignificant part of them, depends upon control of a good or a quantity of goods.<sup>40</sup>

If value consists in a judgment about the significance of “concrete” things in producing satisfaction of “concrete” wants, how are such judgments arrived at? That is, what is the value of a specific thing to a person who seeks to employ it to satisfy his wants? It was in his answer to this question that Menger not only solved the paradox of value, but laid the foundations for the reconstruction of price theory, and, hence, of all of economic science.

Menger brilliantly answered the question by restating it: “[W]hich satisfaction would not be attained if the economizing individual did not have the given unit at his disposal—that is, if he were to have command of a total amount smaller by that one unit?”<sup>41</sup> In light of Menger’s discussion of economizing, the obviously correct answer to this question is “only the least of all the satisfactions assured by the whole available quantity.” In other words, regardless of which particular physical unit of his supply was subtracted, the actor would economize by choosing to reallocate the remaining units so as to continue to satisfy his most important wants and to forego the satisfaction of only the least important want of those previously satisfied by the larger supply. It is, thus, always the least important satisfaction that is dependent on a unit of the actor’s supply of a good and, that, therefore, determines the value of each and every unit of the supply. This value-determining

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<sup>40</sup> Ibid., pp.120–21.

<sup>41</sup> Ibid., p. 131.

satisfaction soon came to be known as the “marginal utility.”<sup>42</sup> As Menger formulated the law of marginal utility:

Accordingly, in every concrete case, of all the satisfactions secured by means of the whole quantity of a good at the disposal of an economizing individual, only those that have the least importance to him are dependent on the availability of a given portion of the whole quantity. Hence the value to this person of any portion of the whole available quantity of the good is equal to the importance to him of the satisfactions of least importance among those assured by the whole quantity and achieved with an equal portion.<sup>43</sup>

Thus, by applying the law of marginal utility, Menger was able to provide a straightforward and incontrovertible resolution to the paradox of value that had so bedeviled classical economics and prevented its development into a full-blown theory of human action. According to Menger, it is because diamonds and gold are extremely rare while water tends to be abundantly available that:

Under ordinary circumstances, therefore, no human need would have to remain unsatisfied if men were unable to command some particular quantity of drinking water. With gold and diamonds, on the other hand, even the least significant satisfactions assured by the total quantity available still have a relatively high importance to economizing men. Thus concrete quantities of drinking water usually have *no* value to economizing men but concrete quantities of gold and diamonds a *high* value.<sup>44</sup>

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<sup>42</sup> The term was coined by Menger’s follower and fellow Austrian economist, Friedrich von Wieser, and Menger himself appears never to have used it in his published work.

<sup>43</sup> Menger, *Principles*, p. 132.

<sup>44</sup> *Ibid.*, p. 140.

Having thus repaired the classical split between use value and exchange value and firmly rooted price theory in consumer valuations and choices, Menger turned his attention to the bifurcation perpetrated by the classical economists between price theory and distribution theory, or between the pricing of consumer goods and the pricing of the factors of production. Once again, Menger used the law of marginal utility to provide a solution of absolute and universal validity. He also refuted, once and for all, the classical contention that, in the long run at least, price is determined by costs of production.

Menger began by pointing out that only satisfaction of wants is directly significant to human beings.<sup>45</sup> Consumer goods, or goods of the first order, attain value, therefore, only because people are cognizant of their dependence on specific quantities of these goods for the satisfaction of specific wants, and, hence, “impute” to these goods the importance of the satisfactions that depend upon them. Goods of higher orders, the factors of production that cooperate in the production of consumer goods, have no immediate connection with the satisfaction of human wants, but through the causal production process they do indirectly bear on the process of want satisfaction. Thus, the value of a certain quantity of consumer goods is imputed to the goods of the second order employed in its production, because the latter are a necessary, if indirect, cause of the satisfaction which is directly attributable to the stock of consumer goods. The same value-imputation analysis applies to the value of goods of the third, fourth, and higher orders. Concluded Menger:

Thus, as with goods of first order, the factor that is ultimately responsible for the value of goods of higher order is merely the importance we attribute to those satisfactions with respect to which we are aware of being dependent on the availability of the goods of higher order

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<sup>45</sup> Ibid., pp.151-52.



whose value is under consideration. But due to the causal connections between goods, the value of goods of higher order is not measured directly by the expected importance of the final satisfaction, but rather by the expected value of the corresponding goods of lower order.<sup>46</sup>

If “the value of goods of higher order is dependent upon the expected value of goods of lower order they serve to produce,” then, as Menger argued, costs of production, which are nothing but the sums of the prices paid for various kinds of higher-order goods, cannot possibly determine the prices of consumer goods, because the costs themselves are ultimately determined by these prices.<sup>47</sup> Furthermore, as Menger pointed out, the cost-of-production theory of price determination cannot account for the prices of the services of land and of labor, which are nature given and, hence, have no costs of production themselves.<sup>48</sup> In contrast, the Mengerian theory of value imputation easily explains these prices in the same manner as the prices of any other species of concrete goods: as proximately derived from the value of the lower-order goods or—if they themselves are goods of the first-order—of the satisfactions that are directly dependent upon them.

## **Conclusion**

This then is Menger’s greatest achievement and the essence of his “revolution” in economics: the demonstration that prices are no more and no less than the objective manifestation of causal processes purposefully initiated and directed to satisfying human wants. It is, thus, price theory that is the heart of Mengerian and, therefore, of Austrian economics. In a profoundly insightful passage in his eulogy, Schumpeter emphasized this aspect of Menger’s contribution:

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<sup>46</sup> Ibid., p. 152.

<sup>47</sup> Ibid., p. 151.

<sup>48</sup> Ibid., p. 149.

What matters, therefore, is not the discovery that people buy, sell, or produce goods because and insofar as they value them from the point of view of satisfaction of needs, but a discovery of quite a different kind: the discovery that this simple fact and its sources in the laws of human needs are wholly sufficient to explain the basic facts about all complex phenomena of the modern exchange economy, and that in spite of striking appearances to the contrary, human needs are the driving force of the economic mechanism beyond the Robinson Crusoe economy or the economy without exchange. The chain of thought which leads to this conclusion starts with the recognition that price formation is the specific economic characteristic of the economy—as distinct from all other social, historical, and technical characteristics—and that all specifically economic events can be comprehended within the framework of price formation. From a purely economic standpoint, the economic system is merely a system of dependent prices; all special problems, whatever they may be called, are nothing but special cases of one and the same constantly recurring process, and all specifically economic regularities are deduced from the laws of price formation. Already in the preface of Menger's work [*Principles*], we find this recognition as a self-evident assumption. His essential aim is to discover the law of price formation. As soon as he succeeded in basing the solution of the pricing problem, in both its "demand" and "supply" aspects, on an analysis of human needs and on what Wieser has called the principle of "marginal utility," the whole complex mechanism of economic life suddenly appeared to be unexpectedly and transparently simple.<sup>49</sup>

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<sup>49</sup> Schumpeter, "Carl Menger," p. 84.

Schumpeter concluded that, despite Menger's other substantial contributions, his "theory of value and price . . . is, so to speak, the expression of his real personality."<sup>50</sup> If this is so, Menger's personality lives on in the flourishing praxeological paradigm of contemporary Austrian economics.

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<sup>50</sup> Schumpeter, "Carl Menger," p. 90.

## Reading 2

### Praxeology: The Method of Economics

#### Context and Summary

Praxeology is one of the main distinctions of the Austrian school. No other economic school of thought employs the logical-deductive method like the Austrians. We saw in the previous reading that the Marginalist Revolution of the 1870s represented a methodological schism in the history of economic thought. Menger and the Austrians continued the epistemologically solid verbal deductive method of Classical economists like J.B. Say and Nassau Senior, while Jevons and Marshall doubled down on the “Ricardian Vice” of over-mathematization and the use of unrealistic assumptions.

In this reading, Rothbard explains what praxeology is and defends it as the proper method of economics. He contrasts opaque mathematical models with the clarity and lucidity of the praxeological method. The intelligibility of the verbal deductive method is important, but that by itself does not mean it is the most appropriate method. Rothbard digs into the epistemological problems of social sciences and shows that only the verbal deductive method is appropriate for economics, due to the discrete and unpredictable nature of human choice. Mathematical models may be appropriate for describing the behavior of inanimate, mindless matter, but the nature of human action is that it is inherently unpredictable and involves discrete margins, meaning calculus, experiments, “laboratory settings,” or assumptions about any constant relations are unsuitable.

Rothbard ends with a discussion of the important Misesian distinction between theory and history. If humans are inherently unpredictable and praxeology is constrained to the universal aspects of action, then how can we approach economic history? Are we doomed to only discussing economics “in theory,” with nothing interesting to say about real people and events?

Thankfully, no. Praxeology, far from being a hermetically sealed compartment of logically true but ultimately sterile statements, is an essential part of the historian’s toolkit. Historians must make use of the a priori true laws of economics to make sense of the truly complex past, along with a good understanding of human motivations and concepts from psychology, the natural sciences, geography, etc.

This article, which originally appeared in *The Foundations of Modern Austrian Economics*, Edwin Dolan, ed. (Kansas City: Sheed and Ward, 1976, pp. 19–39), is also in *Economic Controversies*, a wonderful compilation of Murray Rothbard’s essays.

# Praxeology: The Methodology of Austrian Economics

Murray N. Rothbard

Praxeology is the distinctive methodology of the Austrian School. The term was first applied to the Austrian method by Ludwig von Mises, who was not only the major architect and elaborator of this methodology but also the economist who most fully and successfully applied it to the construction of economic theory.<sup>1</sup> While the praxeological method is, to say the least, out of fashion in contemporary economics—as well as in social science generally and in the philosophy of science—it was the basic method of the earlier Austrian School and also of a considerable segment of the older Classical School, in particular of J.B. Say and Nassau W. Senior.<sup>2</sup>

Praxeology rests on the fundamental axiom that individual human beings act, that is, on the primordial fact that individuals engage in conscious actions toward chosen goals. This concept of action contrasts to purely *reflexive*, or knee-jerk, behavior, which is not

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<sup>1</sup> See in particular Ludwig von Mises, *Human Action: A Treatise on Economics* (New Haven, Conn.: Yale University Press, 1949); also see Mises, *Epistemological Problems of Economics*, George Reisman, trans. (Princeton, N.J.: D. Van Nostrand, 1960).

<sup>2</sup> See Murray N. Rothbard, “Praxeology as the Method of the Social Sciences,” in *Phenomenology and the Social Sciences*, Maurice Natanson, ed., 2 vols. (Evanston, Ill.: Northwestern University Press, 1973), vol. 2, pp. 323–35; reprinted in this volume [Economic Controversies] as chapter 3; also see Marian Bowley, *Nassau Senior and Classical Economics* (New York: Augustus M. Kelley, 1949), pp. 27–65; and Terence W. Hutchinson, “Some Themes from Investigations into Method,” in *Carl Menger and the Austrian School of Economics*, J.R. Hicks and Wilhelm Weber, eds. (Oxford: Clarendon Press, 1973), pp. 15–31.

directed toward goals. The praxeological method spins out by verbal deduction the logical implications of that primordial fact. In short, praxeological economics is the structure of logical implications of the *fact* that individuals act. This structure is built on the fundamental axiom of action, and has a few subsidiary axioms, such as that individuals vary and that human beings regard leisure as a valuable good. Any skeptic about deducing from such a simple base an entire system of economics, I refer to Mises's *Human Action*. Furthermore, since praxeology begins with a true axiom, A, all the propositions that can be deduced from this axiom must also be true. For if A implies B, and A is true, then B must also be true.

Let us consider some of the immediate implications of the action axiom. Action implies that the individual's behavior is purposive, in short, that it is directed toward goals. Furthermore, the fact of his action implies that he has consciously chosen certain means to reach his goals. Since he wishes to attain these goals, they must be valuable to him; accordingly he must have values that govern his choices. That he employs means implies that he believes he has the technological knowledge that certain means will achieve his desired ends. Let us note that praxeology does not assume that a person's choice of values or goals is wise or proper or that he has chosen the technologically correct method of reaching them. All that praxeology asserts is that the individual actor adopts goals and believes, whether erroneously or correctly, that he can arrive at them by the employment of certain means.

All action in the real world, furthermore, must take place through time; all action takes place in some present and is directed toward the future (immediate or remote) attainment of an end. If all of a person's desires could be instantaneously realized, there would be

no reason for him to act at all.<sup>3</sup> Furthermore, that a man acts implies that he believes action will make a difference; in other words, that he will prefer the state of affairs resulting from action to that from no action. Action therefore implies that man does not have omniscient knowledge of the future; for if he had such knowledge, no action of his would make any difference. Hence, action implies that we live in a world of an uncertain, or not fully certain, future. Accordingly, we may amend our analysis of action to say that a man chooses to employ means according to a technological plan in the present because he expects to arrive at his goals at some future time.

The fact that people act necessarily implies that the means employed are scarce in relation to the desired ends; for, if all means were not scarce but superabundant, the ends would already have been attained, and there would be no need for action. Stated another way, resources that are superabundant no longer function as means, because they are no longer objects of action. Thus, air is indispensable to life and hence to the attainment of goals; however, air being superabundant is not an object of action and therefore cannot be considered a *means*, but rather what Mises called a “general condition of human welfare.” Where air is not superabundant, it may become an object of action, for example, where cool air is desired and warm air is transformed through air conditioning. Even with the absurdly unlikely advent of Eden (or what a few years ago was considered in some quarters to be an imminent “postscarcity” world), in which all desires could be fulfilled instantaneously, there would still be at least one scarce means: the individual’s time, each unit of which if allocated to one purpose is necessarily not allocated to some other goal.<sup>4</sup>

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<sup>3</sup> In answer to the criticism that not all action is directed to some future point in time, see Walter Block, “A Comment on ‘The Extraordinary Claim of Praxeology’ by Professor Gutierrez,” *Theory and Decision* 3 (1973): 381–82.

<sup>4</sup> See Mises, *Human Action*, pp. 101–02; and esp., Block, “Comment,” p. 383.



Such are some of the immediate implications of the axiom of action. We arrived at them by deducing the logical implications of the existing fact of human action, and hence deduced true conclusions from a true axiom. Apart from the fact that these conclusions cannot be “tested” by historical or statistical means, there is no need to test them since their truth has already been established. Historical fact enters into these conclusions only by determining which branch of the theory is applicable in any particular case. Thus, for Crusoe and Friday on their desert island, the praxeological theory of money is only of academic, rather than of currently applicable, interest. A fuller analysis of the relationship between theory and history in the praxeological framework will be considered below.

There are, then, two parts of this axiomatic-deductive method: the process of deduction and the epistemological status of the axioms themselves. First, there is the process of deduction; why are the means verbal rather than mathematical logic?<sup>5</sup> Without setting forth the comprehensive Austrian case against mathematical economics, one point can immediately be made: let the reader take the implications of the concept of action as developed so far in this paper and try to place them in mathematical form. And even if that could be done, what would have been accomplished except a drastic loss in meaning at each step of the deductive process? Mathematical logic is appropriate to physics—the science that has become the model science, which modern positivists and empiricists believe all other social and physical sciences should emulate. In physics the axioms and therefore the deductions are in themselves purely formal and only acquire meaning “operationally” insofar as they can explain and predict given facts. On the contrary, in praxeology, in the analysis of human action, the axioms themselves are known to be true and meaningful. As a

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<sup>5</sup> For a typical criticism of praxeology for not using mathematical logic, see George J. Schuller, “Rejoinder,” *American Economic Review* 41 (March 1951): 188.

result, each verbal step-by-step deduction is also true and meaningful; for it is the great quality of verbal propositions that each one is meaningful, whereas mathematical symbols are not meaningful in themselves. Thus Lord Keynes, scarcely an Austrian and himself a mathematician of note, leveled the following critique at mathematical symbolism in economics:

It is a great fault of symbolic pseudo-mathematical methods of formalizing a system of economic analysis, that they expressly assume strict independence between the factors involved and lose all their cogency and authority if this hypothesis is disallowed: whereas, in ordinary discourse, where we are not blindly manipulating but know all the time what we are doing and what the words mean, we can keep “at the back of our heads” the necessary reserves and qualifications and the adjustments which we have to make later on, in a way in which we cannot keep complicated partial differentials “at the back” of several pages of algebra which assume that they all vanish. Too large a proportion of recent “mathematical” economics are mere concoctions, as imprecise as the initial assumptions they rest on, which allow the author to lose sight of the complexities and interdependencies of the real world in a maze of pretentious and unhelpful symbols.<sup>6</sup>

Moreover, even if verbal economics could be successfully translated into mathematical symbols and then retranslated into English so as to explain the conclusions, the process makes no sense and violates the great scientific principle of Occam’s Razor: avoiding unnecessary multiplication of entities.<sup>7</sup>

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<sup>6</sup> John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York: Harcourt, Brace, 1936), pp. 297-98.

<sup>7</sup> See Murray N. Rothbard, “Toward a Reconstruction of Utility and Welfare Economics,” in *On Freedom and Free Enterprise*, Mary Sennholz, ed. (Princeton, N.J.: D. Van Nostrand, 1956), p. 227; reprinted in this volume as chapter 17;

Furthermore, as political scientist Bruno Leoni and mathematician Eugenio Frola pointed out,

It is often claimed that translation of such a concept as the maximum from ordinary into mathematical language, involves an improvement in the logical accuracy of the concept, as well as wider opportunities for its use. But the lack of mathematical precision in ordinary language reflects precisely the behavior of individual human beings in the real world. . . . We might suspect that translation into mathematical language by itself implies a suggested transformation of human economic operators into virtual robots.<sup>8</sup>

Similarly, one of the first methodologists in economics, Jean-Baptiste Say, charged that the mathematical economists

have not been able to enunciate these questions into analytical language, without divesting them of their natural complication, by means of simplifications, and arbitrary suppressions, of which the consequences, not properly estimated, always essentially change the condition of the problem, and pervert all its results.<sup>9</sup>

More recently, Boris Ischboldin has emphasized the difference between verbal, or “language,” logic (“the actual analysis of

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Rothbard, *Man, Economy, and State*, 2 vols. (Princeton, N.J.: D. Van Nostrand, 1962), vol. 1, pp. 65–66. On mathematical logic as being subordinate to verbal logic, see René Poirier, “Logique,” in *Vocabulaire technique et critique de la philosophie*, André Lalande, ed., 6th ed. rev. (Paris: Presses Universitaires de France, 1951), pp. 574–75.

<sup>8</sup> Bruno Leoni and Eugenio Frola, “On Mathematical Thinking in Economics” (unpublished manuscript privately distributed), pp. 23–24; the Italian version of this article is “Possibilita di applicazione della matematiche alle discipline economiche,” *Il Politico* 20 (1995).

<sup>9</sup> Jean-Baptiste Say, *A Treatise on Political Economy* (New York: Augustus M. Kelley, 1964), p. xxviii.

thought stated in language expressive of reality as grasped in common experience”) and “construct” logic, which is “the application to quantitative (economic) data of the constructs of mathematics and symbolic logic which constructs may or may not have real equivalents.”<sup>10</sup>

Although himself a mathematical economist, the mathematician son of Carl Menger wrote a trenchant critique of the idea that mathematical presentation in economics is necessarily more precise than ordinary language:

Consider, for example, the statements (2) *To a higher price of a good, there corresponds a lower (or at any rate not a higher) demand.*

(2') *If  $p$  denotes the price of, and  $q$  the demand for, a good, then*

$$q = f(p) \text{ and } \frac{dq}{dp} = f'(p) \leq 0$$

Those who regard the formula (2') as more precise or “more mathematical” than the sentence (2) are under a complete misapprehension. . . . The only difference between (2) and (2') is this: since (2') is limited to functions which are differentiable and whose graphs, therefore, have tangents (which from an economic point of view are not more plausible than curvature), the sentence (2) is *more general, but it is by no means less precise: it is of the same mathematical precision as (2')*.<sup>11</sup>

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<sup>10</sup> Boris Ischboldin, “a Critique of Econometrics,” *Review of Social Economy* 18, no. 2 (September 1960): 11n; Ischboldin’s discussion is based on the construction of I.M. Bochenski, “Scholastic and Aristotelian Logic,” *Proceedings of the American Catholic Philosophical Association* 30 (1956): 112–17.

<sup>11</sup> Karl Menger, “Austrian Marginalism and Mathematical Economics,” in *Carl Menger*, p. 41.

Turning from the deduction process to the axioms themselves, what is their epistemological status? Here the problems are obscured by a difference of opinion within the praxeological camp, particularly on the nature of the fundamental axiom of action. Ludwig von Mises, as an adherent of Kantian epistemology, asserted that the concept of action is *a priori* to all experience, because it is, like the law of cause and effect, part of “the essential and necessary character of the logical structure of the human mind.”<sup>12</sup> Without delving too deeply into the murky waters of epistemology, I would deny, as an Aristotelian and neo-Thomist, any such alleged “laws of logical structure” that the human mind necessarily imposes on the chaotic structure of reality. Instead, I would call all such laws “laws of reality,” which the mind apprehends from investigating and collating the facts of the real world. My view is that the fundamental axiom and subsidiary axioms are derived from the experience of reality and are therefore in the broadest sense empirical. I would agree with the Aristotelian realist view that its doctrine is radically empirical, far more so than the post-Humean empiricism which is dominant in modern philosophy. Thus, John Wild wrote:

It is impossible to reduce experience to a set of isolated impressions and atomic units. Relational structure is also given with equal evidence and certainty. The immediate data are full of determinate structure, which is easily abstracted by the mind and grasped as universal essences or possibilities.<sup>13</sup>

Furthermore, one of the pervasive data of all human experience is existence; another is consciousness, or awareness. In contrast to the Kantian view, Harmon Chapman wrote that

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<sup>12</sup> Mises, *Human Action*, p. 34.

<sup>13</sup> John Wild, “Phenomenology and Metaphysics,” in *The Return to Reason: Essays in Realistic Philosophy*, John Wild, ed. (Chicago: Henry Regnery, 1953), pp. 48, 37-57.

conception is a kind of awareness, a way of apprehending things or comprehending them and not an alleged subjective manipulation of so-called generalities or universals solely “mental” or “logical” in their provenience and non-cognitive in nature.

That in thus penetrating the data of sense, conception also synthesizes these data is evident. But the synthesis here involved, unlike the synthesis of Kant, is not a prior condition of perception, an anterior process of constituting both perception and its object, but rather a cognitive synthesis *in* apprehension, that is, a uniting or “comprehending” which is one with the apprehending itself. In other words, perception and experience are not the results or end products of a synthetic process *a priori*, but are themselves synthetic or comprehensive apprehension whose structured unity is prescribed solely by the nature of the real, that is, by the intended objects in their togetherness and not by consciousness itself whose (cognitive) nature is to apprehend the real—as it is.<sup>14</sup>

If, in the broad sense, the axioms of praxeology are radically empirical, they are far from the post-Humean empiricism that pervades the modern methodology of social science. In addition to the foregoing considerations, (1) they are so broadly based in common human experience that once enunciated they become self-evident and hence do not meet the fashionable criterion of “falsifiability”; (2) they rest, particularly the action axiom, on universal *inner* experience, as well as on external experience, that is, the evidence is *reflective* rather than purely physical; and (3) they

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<sup>14</sup> Harmon M. Chapman, “Realism and Phenomenology,” in *Return to Reason*, p. 29. On the interrelated functions of sense and reason and their respective roles in human cognition of reality, see Francis H. Parker, “Realistic Epistemology,” *ibid.*, pp. 167–69.

are therefore *a priori* to the complex historical events to which modern empiricism confines the concept of “experience.”<sup>15</sup>

Say, perhaps the first praxeologist, explained the derivation of the axioms of economic theory as follows:

Hence the advantage enjoyed by everyone who, from distinct and accurate observation, can establish the existence of these general facts, demonstrate their connection and deduce their consequences. They as certainly proceed from the nature of things as the laws of the material world. We do not imagine them; they are results disclosed to us by judicious observation and analysis. . . .

Political economy . . . is composed of a few fundamental principles, and of a great number of corollaries or conclusions, drawn from these principles . . . that can be admitted by every reflecting mind.<sup>16</sup>

Friedrich A. Hayek trenchantly described the praxeological method in contrast to the methodology of the physical sciences and also underlined the broadly empirical nature of the praxeological axioms:

The position of man . . . brings it about that the essential basic facts which we need for the explanation of social phenomena are part of common experience, part of the stuff of our thinking. In the social sciences it is the elements of the complex phenomena which are known beyond the possibility of dispute. In the natural sciences they can only be at best surmised. The existence of these

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<sup>15</sup> See Murray N. Rothbard, “In Defense of ‘Extreme Apriorism,’” *Southern Economic Journal* 23 (January 1957): 315–18; included in this volume as chapter 6. It should be clear from the current paper that the term extreme apriorism is a misnomer for praxeology.

<sup>16</sup> Say, *A Treatise on Political Economy*, pp. xxv–xxvi, xlv.

elements is so much more certain than any regularities in the complex phenomena to which they give rise, that it is they which constitute the truly empirical factor in the social sciences. There can be little doubt that it is this different position of the empirical factor in the process of reasoning in the two groups of disciplines which is at the root of much of the confusion with regard to their logical character. The essential difference is that in the natural sciences the process of deduction has to start from some hypothesis which is the result of inductive generalizations, while in the social sciences it starts directly from known empirical elements and uses them to find the regularities in the complex phenomena which direct observations cannot establish. They are, so to speak, empirically deductive sciences, proceeding from the known elements to the regularities in the complex phenomena which cannot be directly established.<sup>17</sup>

Similarly, J.E. Cairnes wrote:

*The economist starts with a knowledge of ultimate causes. He is already, at the outset of his enterprise in the position which the physicist only attains after ages of laborious research. . . . For the discovery of such premises no elaborate process of induction is needed . . . for this reason, that we have, or may have if we choose to turn our attention to the subject, direct knowledge of these causes in our consciousness of what passes in our own minds, and in the information which our senses convey . . . to us of external facts.*<sup>18</sup>

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<sup>17</sup> Friedrich A. Hayek, "The Nature and History of the Problem," in *Collectivist Economic Planning*, F.A. Hayek, ed. (London: George Routledge and Sons, 1935), p 11.

<sup>18</sup> John Elliott Cairnes, *The Character and Logical Method of Political Economy*, 2nd ed. (London: Macmillan, 1875), pp. 87-88; italics in the original.



Nassau W. Senior phrased it thus:

The physical sciences, being only secondarily conversant with mind, draw their premises almost exclusively from observation or hypothesis. . . . On the other hand, the mental sciences and the mental arts draw their premises principally from consciousness. The subjects with which they are chiefly conversant are the workings of the human mind. [These premises are] a very few general propositions, which are the result of observation, or consciousness, and which almost every man, as soon as he hears them, admits, as familiar to his thought, or at least, included in his previous knowledge.<sup>19</sup>

Commenting on his complete agreement with this passage, Mises wrote that these “immediately evident propositions” are “of aprioristic derivation . . . unless one wishes to call aprioristic cognition inner experience.”<sup>20</sup> To which Marian Bowley, the biographer of Senior, justly comments:

The only fundamental difference between Mises’s general attitude and Senior’s lies in Mises’s apparent denial of the possibility of using any general empirical data, i.e., facts of general observation, as initial premises. This difference, however, turns upon Mises’s basic ideas of the nature of thought, and though of general philosophic importance, has little special relevance to economic method as such.<sup>21</sup>

It should be noted that for Mises it is only the fundamental axiom of action that is *a priori*; he conceded that the subsidiary axioms of the diversity of mankind and nature, and of leisure as a consumers’ good, are broadly empirical.

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<sup>19</sup> Bowley, *Nassau Senior*, pp. 43, 56.

<sup>20</sup> Mises, *Epistemological Problems*, p. 19.

<sup>21</sup> Bowley, *Nassau Senior*, pp. 64–65.

Modern post-Kantian philosophy has had a great deal of trouble encompassing self-evident propositions, which are marked precisely by their strong and evident truth rather than by being testable hypotheses, that are, in the current fashion, considered to be “falsifiable.” Sometimes it seems that the empiricists use the fashionable analytic-synthetic dichotomy, as the philosopher Hao Wang charged, to dispose of theories they find difficult to refute by dismissing them as necessarily *either* disguised definitions *or* debatable and uncertain hypotheses.<sup>22</sup> But what if we subject the vaunted “evidence” of modern positivists and empiricists to analysis? What is it? We find that there are two types of such evidence to either confirm or refute a proposition: (1) if it violates the laws of logic, for example, implies that  $A = \neg A$ ; or (2) if it is confirmed by empirical facts (as in a laboratory) that can be checked by many persons. But what is the nature of such “evidence” but the bringing, by various means, of propositions hitherto cloudy and obscure into clear and evident view, that is, evident to the scientific observers? In short, logical or laboratory processes serve to make it evident to the “selves” of the various observers that the propositions are either confirmed or refuted, or, to use unfashionable terminology, either true or false. But in that case propositions that are *immediately* evident to the selves of the observers have at least as good scientific status as the other and currently more acceptable forms of evidence. Or, as the Thomist philosopher John J. Toohey put it,

*Proving* means *making evident* something which is not evident. If a truth or proposition is self-evident, it is useless to attempt to prove it; to attempt to prove it would be to

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<sup>22</sup> Hao Wang, “Notes on the Analytic-Synthetic Distinction,” *Theoria* 21 (1995): 158; see also John Wild and J.L. Cobitz, “On the Distinction between the Analytic and Synthetic,” *Philosophy and Phenomenological Research* 8 (June 1948): 651–67.

attempt to make evident something which is already evident.<sup>23</sup>

The action axiom, in particular, should be, according to Aristotelian philosophy, unchallengeable and self-evident since the critic who attempts to refute it finds that he must use it in the process of alleged refutation. Thus, the axiom of the existence of human consciousness is demonstrated as being self-evident by the fact that the very act of denying the existence of consciousness must itself be performed by a conscious being. The philosopher R.P. Phillips called this attribute of a self-evident axiom a “boomerang principle,” since “even though we cast it away from us, it returns to us again.”<sup>24</sup> A similar self-contradiction faces the man who attempts to refute the axiom of human action. For in doing so, he is *ipso facto* a person making a conscious choice of means in attempting to arrive at an adopted end: in this case the end, or goal, of trying to refute the axiom of action. He employs action in trying to refute the notion of action.

Of course, a person may *say* that he denies the existence of self-evident principles or other established truths of the real world, but this mere saying has no epistemological validity. As Toohey pointed out,

A man may *say* anything he pleases, but he cannot *think* or *do* anything he pleases. He may say he saw a round square, but he cannot *think* he saw a round square. He may say, if

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<sup>23</sup> John J. Toohey, *Notes on Epistemology*, rev. ed. (Washington, D.C.: Georgetown University, 1937), p. 36; italics in the original.

<sup>24</sup> R.P. Phillips, *Modern Thomistic Philosophy* (Westminster, Maryland: Newman Bookshop, 1934–35), vol. 2, pp. 36–37; see also Murray N. Rothbard, “The Mantle of Science,” in *Scientism and Values*, Helmut Schoeck and James W. Wiggins, eds. (Princeton, N.J.: D. Van Nostrand, 1960), pp. 162–65; included in this volume as chapter 1.

he likes, that he saw a horse riding astride its own back,  
but we shall know what to think of him if he says it.<sup>25</sup>

The methodology of modern positivism and empiricism comes a cropper even in the physical sciences, to which it is much better suited than to the sciences of human action; indeed, it particularly fails where the two types of disciplines interconnect. Thus, the phenomenologist Alfred Schütz, a student of Mises at Vienna, who pioneered in applying phenomenology to the social sciences, pointed out the contradiction in the empiricists' insistence on the principle of empirical verifiability in science, while at the same time denying the existence of "other minds" as unverifiable. But *who* is supposed to be doing the laboratory verification if not these selfsame "other minds" of the assembled scientists? Schütz wrote:

It is . . . not understandable that the same authors who are convinced that no verification is possible for the intelligence of other human beings have such confidence in the principle of verifiability itself, which can be realized only through cooperation with others.<sup>26</sup>

In this way, the modern empiricists ignore the necessary presuppositions of the very scientific method they champion. For Schütz, knowledge of such presuppositions is "empirical" in the broadest sense,

provided that we do not restrict this term to sensory perceptions of objects and events in the outer world but include the experiential form, by which common-sense thinking in everyday life understands human actions and

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<sup>25</sup> Toohey, *Notes on Epistemology*, p. 10; italics in the original.

<sup>26</sup> Alfred Schütz, *Collected Papers of Alfred Schütz*, vol. 2: *Studies in Social Theory*, A. Brodersen, ed. (The Hague: Nijhoff, 1964), p. 4; see also Mises, *Human Action*, p. 24.

their outcome in terms of their underlying motives and goals.<sup>27</sup>

Having dealt with the nature of praxeology, its procedures and axioms and its philosophical groundwork, let us now consider what the relationship is between praxeology and the other disciplines that study human action. In particular, what are the differences between praxeology and technology, psychology, history, and ethics—all of which are in some way concerned with human action?

In brief, *praxeology* consists of the logical implications of the universal formal fact that people act, that they employ means to try to attain chosen ends. *Technology* deals with the contentual problem of *how* to achieve ends by adoption of means. *Psychology* deals with the question of *why* people adopt various ends and how they go about adopting them. *Ethics* deals with the question of what ends, or values, people *should* adopt. And *history* deals with ends adopted in the past, what means were used to try to achieve them—and what the consequences of these actions were.

Praxeology, or economic theory in particular, is thus a unique discipline within the social sciences; for, in contrast to the others, it deals not with the *content* of men's values, goals, and actions—not with what they have done or how they have acted or how they should act—but purely with the fact that they *do* have goals and act to attain them. The laws of utility, demand, supply, and price

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<sup>27</sup> Alfred Schütz, *Collected Papers of Alfred Schütz*, vol. 1: *The Problem of Social Reality*, Maurice Natanson, ed. (The Hague: Nijhoff, 1962), p. 65. On the philosophical presuppositions of science, see Andrew G. Van Melsen, *The Philosophy of Nature* (Pittsburgh, Penn.: Duquesne University Press, 1953), pp. 6–29. On common sense as the groundwork of philosophy, see Toohey, *Notes on Epistemology*, pp. 74, 106–13. On the application of a similar point of view to the methodology of economics, see Frank H. Knight, “‘What is Truth’ in Economics,” in *On the History and Method of Economics* (Chicago: University of Chicago Press, 1956), pp. 151–78.

apply regardless of the type of goods and services desired or produced. As Joseph Dorfman wrote of Herbert J. Davenport's *Outlines of Economic Theory* (1896):

The ethical character of the desires was not a fundamental part of his inquiry. Men labored and underwent privation for "whiskey, cigars, and burglars' jimmys," he said, "as well as for food, or statuary or harvest machinery." As long as men were willing to buy and sell "foolishness and evil," the former commodities would be economic factors with market standing, for utility, as an economic term, meant merely adaptability to human desires. So long as men desired them, they satisfied a need and were motives to production. Therefore economics did not need to investigate the origin of choices.<sup>28</sup>

Praxeology, as well as the sound aspects of the other social sciences, rests on methodological individualism, on the fact that only individuals feel, value, think, and act. Individualism has always been charged by its critics—and always incorrectly—with the assumption that each individual is a hermetically sealed "atom," cut off from, and uninfluenced by, other persons. This absurd misreading of methodological individualism is at the root of J.K. Galbraith's triumphant demonstration in *The Affluent Society* (Boston: Houghton Mifflin, 1958) that the values and choices of individuals are influenced by other persons, and therefore—supposedly—that economic theory is invalid. Galbraith also concluded from his demonstration that these choices, because influenced, are artificial and illegitimate. The fact that praxeological economic theory rests on the universal fact of individual values and choices means, to repeat Dorfman's summary of Davenport's thought, that economic theory does "not need to investigate the origin of choices." Economic theory is not

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<sup>28</sup> Joseph Dorfman, *The Economic Mind in American Civilization*, 5 vols. (New York: Viking Press, 1949), vol. 3, p. 376.

based on the absurd assumption that each individual arrives at his values and choices in a vacuum, sealed off from human influence. Obviously, individuals are continually learning from and influencing each other. As F.A. Hayek wrote in his justly famous critique of Galbraith, “The Non Sequitur of the ‘Dependence Effect’”:

Professor Galbraith’s argument could be easily employed, without any change of the essential terms, to demonstrate the worthlessness of literature or any other form of art. Surely an individual’s want for literature is not original with himself in the sense that he would experience it if literature were not produced. Does this then mean that the production of literature cannot be defended as satisfying a want because it is only the production which provokes the demand?<sup>29</sup>

That Austrian-School economics rests firmly from the beginning on an analysis of the fact of individual subjective values and choices unfortunately led the early Austrians to adopt the term *psychological school*. The result was a series of misdirected criticisms that the latest findings of psychology had not been incorporated into economic theory. It also led to misconceptions such as that the law of diminishing marginal utility rests on some psychological law of the satiety of wants. Actually, as Mises firmly pointed out, that law is praxeological rather than psychological and has nothing to do with the *content* of wants, for example, that the tenth spoonful of ice cream may taste less pleasurable than the ninth spoonful. Instead, it is a praxeological truth, derived from the nature of action, that the first unit of a good will be allocated to its most valuable use, the next unit to the next most valuable, and

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<sup>29</sup> Friedrich A. Hayek, “The Non Sequitur of the ‘Dependence Effect,’” in Friedrich A. Hayek, *Studies in Philosophy, Politics, and Economics* (Chicago: University of Chicago Press, 1967), pp. 314-15.

so on.<sup>30</sup> On one point, and on one point alone, however, praxeology and the related sciences of human action take a stand in philosophical psychology: on the proposition that the human mind, consciousness, and subjectivity exist, and therefore action exists. In this it is opposed to the philosophical base of behaviorism and related doctrines and joined with all branches of classical philosophy and with phenomenology. On all other questions, however, praxeology and psychology are distinct and separate disciplines.<sup>31</sup>

A particularly vital question is the relationship between economic theory and history. Here again, as in so many other areas of Austrian economics, Ludwig von Mises made the outstanding contribution, particularly in his *Theory and History*.<sup>32</sup> It is especially curious that Mises and other praxeologists, as alleged “a priorists,” have commonly been accused of being “opposed” to history. Mises indeed held not only that economic theory does not need to be “tested” by historical fact but also that it *cannot* be so tested. For a fact to be usable for testing theories, it must be a simple fact, homogeneous with other facts in accessible and repeatable classes. In short, the theory that one atom of copper, one atom of sulfur, and four atoms of oxygen will combine to form a recognizable entity called copper sulfate, with known properties, is easily tested in the laboratory. Each of these atoms is homogeneous, and therefore the test is repeatable indefinitely. But each historical event, as Mises pointed out, is not simple and repeatable; each event is a complex resultant of a shifting variety of multiple causes, none of which ever remains in constant relationships with the others. Every historical event, therefore, is heterogeneous, and therefore historical events cannot be used either to test or to construct laws of history, quantitative or otherwise. We can place

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<sup>30</sup> Mises, *Human Action*, p. 124.

<sup>31</sup> See Rothbard, “Toward a Reconstruction,” pp. 230–31.

<sup>32</sup> Ludwig von Mises, *Theory and History* (New Haven, Conn.: Yale University Press, 1957).



every atom of copper into a homogeneous class of copper atoms; we cannot do so with the events of human history.

This is not to say, of course, that there are no similarities among historical events. There are many similarities, but no homogeneity. Thus, there were many similarities between the presidential election of 1968 and that of 1972, but they were scarcely homogeneous events, since they were marked by important and inescapable differences. Nor will the next election be a repeatable event to place in a homogeneous class of “elections.” Hence no scientific, and certainly no quantitative, laws can be derived from these events.

Mises’s radically fundamental opposition to econometrics now becomes clear. Econometrics not only attempts to ape the natural sciences by using complex heterogeneous historical facts as if they were repeatable homogeneous laboratory facts; it also squeezes the qualitative complexity of each event into a quantitative number and then compounds the fallacy by acting as if these quantitative relations remain constant in human history. In striking contrast to the physical sciences, which rest on the empirical discovery of quantitative constants, econometrics, as Mises repeatedly emphasized, has failed to discover a single constant in human history. And given the ever-changing conditions of human will, knowledge, and values and the differences among men, it is inconceivable that econometrics can ever do so.

Far from being opposed to history, the praxeologist, and not the supposed admirers of history, has profound respect for the irreducible and unique facts of human history. Furthermore, it is the praxeologist who acknowledges that individual human beings cannot legitimately be treated by the social scientist as if they were not men who have minds and act upon their values and expectations, but stones or molecules whose course can be scientifically tracked in alleged constants or quantitative laws. Moreover, as the crowning irony, it is the praxeologist who is truly

empirical because he recognizes the unique and heterogeneous nature of historical facts; it is the self-proclaimed “empiricist” who grossly violates the facts of history by attempting to reduce them to quantitative laws. Mises wrote thus about econometricians and other forms of “quantitative economists”:

There are, in the field of economics, no constant relations, and consequently no measurement is possible. If a statistician determines that a rise of 10 percent in the supply of potatoes in Atlantis at a definite time was followed by a fall of 8 percent in the price, he does not establish anything about what happened or may happen with a change in the supply of potatoes in another country or in another time. He has not “measured” the “elasticity of demand” of potatoes. He has established a unique individual historical fact. No intelligent man can doubt that the behavior of men with regard to potatoes and every other commodity is variable. Different individuals value the same things in a different way, and valuations change with the same individuals with changing conditions. . . .

The impracticability of measurement is not due to the lack of technical methods for the establishment of measure. It is due to the absence of constant relations. . . . Economics is not, as . . . positivists repeat again and again, backward because it is not “quantitative.” It is not quantitative and does not measure because there are no constants. Statistical figures referring to economic events are historical data. They tell us what happened in a nonrepeatable historical case. Physical events can be interpreted on the ground of our knowledge concerning constant relations established by experiments. Historical events are not open to such an interpretation. . . .

Experience of economic history is always experience of complex phenomena. It can never convey knowledge of

the kind the experimenter abstracts from a laboratory experiment. Statistics is a method for the presentation of historical facts. . . . The statistics of prices is economic history. The insight that, *ceteris paribus*, an increase in demand must result in an increase in prices is not derived from experience. Nobody ever was or ever will be in a position to observe a change in one of the market data *ceteris paribus*. There is no such thing as quantitative economics. All economic quantities we know about are data of economic history. . . . Nobody is so bold as to maintain that a rise of A percent in the supply of any commodity must always—in every country and at any time—result in a fall of B percent in price. But as no quantitative economist ever ventured to define precisely on the ground of statistical experience the special conditions producing a definite deviation from the ratio A:B, the futility of his endeavors is manifest.<sup>33</sup>

Elaborating on his critique of constants Mises added:

The quantities we observe in the field of human action . . . are manifestly variable. Changes occurring in them plainly affect the result of our actions. Every quantity that we can observe is a historical event, a fact which cannot be fully described without specifying the time and geographical point.

The econometrician is unable to disprove this fact, which cuts the ground from under his reasoning. He cannot help admitting that there are no “behavior constants.” Nonetheless, he wants to introduce some numbers, arbitrarily chosen on the basis of historical fact, as “unknown *behavior constants*.” The sole excuse he advances is that his hypotheses are “saying only that these unknown

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<sup>33</sup> Mises, *Human Action*, pp. 55-56, 348.

numbers remain reasonably constant through a period of years.”<sup>34</sup> Now whether such a period of supposed constancy of a definite number is still lasting or whether a change in the number has already occurred can only be established later on. In retrospect it may be possible, although in rare cases only, to declare that over a (probably rather short) period an approximately stable ratio which the econometrician chooses to call a “reasonably” constant ratio prevailed between the numerical values of two factors. But this is something fundamentally different from the constants of physics. It is the assertion of a historical fact, not of a constant that can be resorted to in attempts to predict *future* events.<sup>35</sup> The highly praised equations are, insofar as they apply to the future, merely equations in which all quantities are unknown.<sup>36</sup>

In the mathematical treatment of physics the distinction between constants and variables makes sense; it is essential in every instance of technological computation. In economics there are no constant relations between various magnitudes. Consequently all ascertainable data are variables, or what amounts to the same thing, *historical* data. The mathematical economists reiterate that the plight of mathematical economics consists in the fact that there are a great number of variables. The truth is that

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<sup>34</sup> Cowles Commission for Research in Economics, *Report for the Period, January 1, 1948–June 30, 1949* (Chicago: University of Chicago Press, 1949), p. 7, quoted in Mises, *Theory and History*, pp. 10–11.

<sup>35</sup> *Ibid.*, pp. 10–11.

<sup>36</sup> Ludwig von Mises, “Comments about the Mathematical Treatment of Economic Problems.” (Cited as “unpublished manuscript”; published as “The Equations of Mathematical Economics” in the *Quarterly Journal of Austrian Economics* 3, no. 1 (Spring, 2000): 27–32.

there are only variables and no constants. It is pointless to talk of variables where there are no invariables.<sup>37</sup>

What, then, is the proper relationship between economic theory and economic history or, more precisely, history in general? The historian's function is to try to explain the unique historical facts that are his province; to do so adequately he must employ all the relevant theories from all the various disciplines that impinge on his problem. For historical facts are complex resultants of a myriad of causes stemming from different aspects of the human condition. Thus, the historian must be prepared to use not only praxeological economic theory but also insights from physics, psychology, technology, and military strategy along with an interpretive understanding of the motives and goals of individuals. He must employ these tools in understanding both the goals of the various actions of history and the consequences of such actions. Because understanding diverse individuals and their interactions is involved, as well as the historical context, the historian using the tools of natural and social science is in the last analysis an "artist," and hence there is no guarantee or even likelihood that any two historians will judge a situation in precisely the same way. While they may agree on an array of factors to explain the genesis and consequences of an event, they are unlikely to agree on the precise weight to be given each causal factor. In employing various scientific theories, they have to make judgments of relevance on which theories applied in any given case; to refer to an example used earlier in this paper, a historian of Robinson Crusoe would hardly employ the theory of money in a historical explanation of his actions on a desert island. To the economic historian, economic law is neither confirmed nor tested by historical facts; instead, the law, where relevant, is applied to

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<sup>37</sup> Mises, *Theory and History*, pp. 11-12; see also Leoni and Frola, "On Mathematical Thinking," pp. 1-8; and Leland B. Yeager, "Measurement as Scientific Method in Economics," *American Journal of Economics and Sociology* 16 (July 1957): 337-46.

help explain the facts. The facts thereby *illustrate* the workings of the law. The relationship between praxeological economic theory and the understanding of economic history was subtly summed up by Alfred Schütz:

No economic act is conceivable without some reference to an economic actor, but the latter is absolutely anonymous; it is not you, nor I nor an entrepreneur, nor even an “economic man,” as such, but a pure universal “one.” This is the reason why the propositions of theoretical economics have just that “universal validity” which gives them the ideality of the “and so forth” and “I can do it again.” However, one can study the economic actor as such and try to find out what is going on in his mind; of course, one is not then engaged in theoretical economics but in economic history or economic sociology. . . . However, the statements of these sciences can claim no universal validity, for they deal either with the economic sentiments of particular historical individuals or with types of economic activity for which the economic acts in question are evidence. . . .

In our view, pure economics is a perfect example of an objective meaning-complex about subjective meaning-complexes, in other words, of an objective meaning-configuration stipulating the typical and invariant subjective experiences of anyone who acts within an economic framework. . . . Excluded from such a scheme would have to be any consideration of the uses to which the “goods” are to be put after they are acquired. But once we do turn our attention to the subjective meaning of a real individual person, leaving the anonymous “anyone” behind, then of course it makes sense to speak of behavior that is atypical. . . . To be sure, such behavior is irrelevant from the point of view of economics, and it is in this sense

that economic principles are, in Mises's words, "not a statement of what usually happens, but of what necessarily must happen."<sup>38</sup>

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<sup>38</sup> Alfred Schütz, *The Phenomenology of the Social World* (Evanston, Ill.: Northwestern University Press, 1967), pp. 137, 245; also see Ludwig M. Lachmann, *The Legacy of Max Weber* (Berkeley, Calif.: Glendessary Press, 1971), pp. 17-48.

## Reading 3

### Subjective Value and Market Prices

#### Context and Summary

The first reading introduced some of the Austrian school's history of thought and the second reading defined and defended the Austrian school's methodology. With the present reading, we have arrived at the first bit of "mundane economics."<sup>1</sup> Thomas C. Taylor distills the value and price theory of Menger, Mises, Böhm-Bawerk, and Rothbard.

The starting point for the development of all economic theory is "human action is purposeful behavior."<sup>2</sup> As human actors ourselves, we have direct knowledge of how we go about evaluating our options in bringing about a desired state of affairs. We do not compare anything resembling "happiness units" and we do not act arbitrarily. Instead, we make conscious, purposeful decisions to pursue one state of affairs over all others. The chosen course of action is ranked higher, or is perceived as more important or urgent, than all the other possibilities we considered. Our preferences, therefore, are ordinal, not cardinal.

Moreover, our preferences are personal or "subjective", meaning that mine are mine and yours are yours. They are not objective.

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<sup>1</sup> See Peter Klein's (2008) "The Mundane Economics of the Austrian School" (*The Quarterly Journal of Austrian Economics*, 11(3), pp. 165-187), in which he argues that the true distinctive of the Austrian school is not a special emphasis on "subjectivism, the market process, or spontaneous order." The true distinctive contributions of the Austrian school are found in the "mundane" theories of value, price, capital, production, business cycles, etc.

<sup>2</sup> Readers may recognize this as the first sentence of Mises's *Human Action*.



Our values are only made apparent to others when they observe our actions.<sup>3</sup>

The subjectivity of value gives rise to the possibility that two people have reverse valuations of goods. If one person would prefer to have what another has more than what he currently has, and the same can be said of the other person, then they can exchange the goods for mutual benefit. The ratio of one good to the other in this exchange is called a “price.”

The subjective theory of value and Austrian price theory are positive theories, meaning that they are not based on merely “filling in the gaps” of other theories. They stand on their own as explanations of how we perceive, evaluate, and act upon alternative courses of action both in isolation and with others who have their own values.

Despite this, it is worth noting that Taylor dispels a few myths and errors along the way (only sometimes explicitly), including the diamond-water paradox, intrinsic or cost-of-production theories of value, Homo Economicus, the “specialness” of money, the Marshallian “blades of a pair of scissors” price theory, any attempt to measure value, Giffen goods, and impersonal “market mechanisms.”

The following reading is chapters 4 and 5 from *An Introduction to Austrian Economics* by Thomas C. Taylor.

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<sup>3</sup> Even here, however, only the chosen, highest-valued course of action is demonstrated. Observers do not see what the next-best course of action might have been.

# **Selections from *An Introduction to Austrian Economics***

**Thomas C. Taylor**

## **Chapter 4: The Subjective Theory of Value**

The explanation of all economic activity that takes place in the market economy ultimately rests on the subjective theory of value. The value of various consumer goods and services does not reside objectively and intrinsically in the things themselves, apart from the individual who is making an evaluation. His valuation is a subjective matter that even he cannot reduce to objective terms or measurement. Valuation consists in preferring a particular increment of a thing over increments of alternative things available; the outcome of valuation is the ranking of definite quantities of various goods and services with which the individual is concerned for purposes of decision and action. Theory resorts to the hypothetical concept of the scale of values in seeking to explain and understand the nature of human valuations. The ranking of alternative ends is determined by the person's expectations of satisfaction from each specific choice faced by him at any moment of decision. He will invariably select the alternative that he believes will yield him the greatest satisfaction.

The subjectiveness of valuation rests in the nature of satisfaction—satisfaction is subjective and not open to numerical measurement. The extent to which a thing gives satisfaction is always personal. People derive satisfaction from different goods and services; that is, all people are not alike in terms of the types of things that please them. Experience also demonstrates that a person's preferences vary from time to time. His ranking of alternative

choices may undergo a reshuffling at any given moment. His scale of values may also be altered by deletions or additions.

To relate the matter of valuation to the individual person is not to suggest that each individual is concerned only with the satisfaction of his own appetites and needs. A person may find satisfaction or relief in helping another person. Satisfaction can be and often is derived from the attainment of altruistic as well as “selfish” motives. But the point remains that regardless of the form the satisfaction is to take, each choice arises from subjective valuation on the part of the particular person who is doing the choosing. The uneasiness that he seeks to remove is in his own mind, whether such uneasiness pertains to an immediate problem of his own or to a problem faced by someone else. His choice stems from the preference that he has for the removal of a particular uneasiness over another problem to which he could devote his attention.

### **The Principle of Marginal Utility**

Valuation is always directed toward a definite quantity of a particular good or service. Choices and decisions are not concerned with the whole supply of a certain good or service. This marginal orientation was lacking in the classical economists’ groping with the so-called paradox of value. They were unable to resolve the intriguing question of why diamonds had a higher price per unit than water when everyone knew that water was more useful and valuable than diamonds. Only through the principle of diminishing marginal utility could this conceptual dilemma be eliminated. Each additional unit of a particular good is devoted to a use that is less important and urgent than the use to which the preceding unit was applied.

To establish this principle one does not have to resort, as is sometimes done, to explanations of psychological or physiological satiety. The principle that a person will always apply a given unit

of a good or service to the most pressing desire or need to which it relates is inherent in the concept of purposive action. Since each person prefers more satisfaction to less satisfaction, each succeeding unit obtained will be devoted to less and less important aims, given his scale of values at that time.

From the principle of diminishing marginal utility is derived an important law relating to the value of a unit of any good possessed in any particular quantity. The value of a unit of a given quantity of a particular good is determined by its usefulness in its least important use. To put the rule another way, the value of any unit of several units held of a given good is equal to the satisfaction that would be sacrificed if one unit were lost. Böhm-Bawerk illustrated the law by imagining a pioneer farmer who has reaped five sacks of grain from his harvest.<sup>4</sup> In planning carefully the use of this food supply, he first recognizes the essential need for a minimum amount of food to keep him alive until the following harvest. To this purpose he allots one sack of grain. A second sack will contribute to his enjoying full strength and complete health. A third sack will enable him to add some variety to his diet by using it for raising poultry. He decides to assign a fourth sack to the distillation of brandy; and finally, a fifth sack is to be devoted to the feeding of a group of parrots “whose antics give him pleasure.”

The example depicts the operation of the principle of diminishing marginal utility. The farmer’s plans for the sacks of grain proceed from the more important to the less important uses. The value of each sack of grain equals the satisfaction that the farmer expects to derive from being able to feed and enjoy his parrot friends. This is the satisfaction that he would surrender if he suffered the misfortune of losing one sack of grain. Since his sacks of grain are a homogeneous commodity, he does not have to go without any of

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<sup>4</sup> Eugen von Böhm-Bawerk, *Capital and Interest*, vol. 2, book 3 (South Holland: Libertarian Press, 1959), pp. 143–145.

the four more important uses because of his loss. He will simply select the least important use in determining which part of his original plan cannot be effected. The value of a unit is determined by its marginal utility or satisfaction.

The principle of diminishing marginal utility and its complementary law of value resolve the paradox of value as exemplified by the discrepancy between the price of diamonds and the price of water. The element of scarcity in controlling the extent to which a particular commodity can be used holds the key. The relative abundance of water as compared with the availability of diamonds means that increments of water can be devoted to less and less important uses than those to which the limited amount of diamonds can be put. No one is ever in the predicament of having to choose between all water and all diamonds; thus there is no meaningful paradox. Prices arise in connection with definite amounts of goods and not in connection with whole categories of various goods.

If the amount of a good with which one is concerned is enlarged to encompass several of the smaller "units," the value theory is no less applicable. In this case, the larger amount becomes the marginal unit, and its valuation equals the sum of the various satisfactions that the larger amount would yield if broken down into incremental usages. For example, if our farmer is faced with giving up in one stroke three sacks of grain, his valuation of this package is not equal to three times the valuation or satisfaction attached to the maintenance of his parrots. He is not in the situation of valuing just one sack of grain. He will sacrifice the three least important uses of his sacks of grain, thereby devoting his remaining two sacks to meeting his essential food needs. The value of a "unit" of three sacks of grain equals the total satisfaction expected to be obtained from raising poultry, distilling brandy, and feeding parrots. This is the marginal satisfaction pertaining to the marginal unit of three sacks.

The size of the unit used is not important for the operation of value theory. It can be seen that if one were in the impossible position of having to rank all water and all diamonds, one would rate the former first and the latter second, disproving the existence of any paradox of value. It also follows that if the supply of a particular good is so large that some units go unused, the marginal utility of the good is zero; in such case, no value would be attached to any particular unit. The good would not belong to the realm of economics and could be expediently termed a “free” good. This is the case with the ordinary air that we breathe (although problems with air pollution have created certain situations that involve costly, not free, clean air).

### **Value and Exchange**

In a modern economy the purpose of production is to yield goods and services to be used by people other than the producers themselves. This is the essence of specialization and division of labor. In a developed society, production for exchange overshadows production for immediate use. As a result, units of goods and services take on exchange value in addition to the use value that they may have for the producer. And with the overwhelming emphasis on production for exchange, the exchange value of produced goods looms as the value that is of real significance and relevance for most producers, while the use value of goods is the meaningful value for consumers.

It may appear that the concept of exchange value introduces a departure from the subjective theory of value, yet this is not the case. A unit of a given good derives its exchange value from the subjective value that is identified with the amount of some other good that can be obtained in exchange for it. This is true whether the good is to be exchanged directly for some other consumable good or for a certain amount of money. People wish to obtain other goods, including money, because they place a subjective valuation on such acquisitions. The value of a good as a means of

exchange is based on the greatest satisfaction that the owner expects can be derived by giving up the good in exchange for some other good. The subjective value of the most desirable good or service that can be obtained in exchange is the basis of the value imputed to the possessed good.

Thus any particular good takes on both a use value and an exchange value. Each of these values reflects the satisfaction that can be expected to come by way of employing the good; the good can be employed either for direct use or as a means of obtaining some other good through outright exchange with another person. The controlling valuation for decision and action is always the greater of the two alternative satisfactions. If the good's use value exceeds its exchange value, the good will be put to direct use or held for eventual direct use, and its exchange value will be forgone. On the other hand, if its exchange value exceeds its use value, the good will be utilized for exchange purposes or held for possible exchange at some time in the future.

It should be understood that exchange value here refers to the *subjective* valuation placed by the owner on the good as a means of exchange. The expression "exchange value" is used frequently in the sense of the money price that can be obtained for a given good through its sale. In the context of the subjectivity of value, however, this objective money value would be evaluated subjectively in the same way that a noncash good obtainable through exchange would be evaluated.

### **Uses of Money**

In most modern economies, money is primarily fiat money, and its use value in the sense of being employed for consumption purposes is virtually zero. However, where specie is used, money can have a considerable use value. For example, gold and silver can be melted down for jewelry, decoration, and dental applications. Incidents of converting money into other useful

products are not common in modern economies; money is valued almost invariably for its exchangeability. Its great service is that it obviates the requirement for a coincidence of product wants among the parties to an exchange, as is required in cases of direct barter.<sup>5</sup>

There are three ways that a specific quantity of money can be put to immediate use. It can be used for the expenditure necessary to acquire another good or service to be used for consumption purposes. It can be spent for another good or service that is to be used in the productive process of effecting or fabricating a new good. In such case, an investment expenditure is made that is designed to yield future consumption or investment benefits through subsequent disposal or consumption of the produced good. Even wholesalers and retailers who bring about no change to the physical good itself effect a new good by placing it at a more accessible and convenient location. They are thereby engaged in the productive process, and the money spent to acquire the goods stocked is expended for production as opposed to consumption purposes.

The third use is to add the money to one's cash balance to help pay for future exchange transactions. The fact that a person holds a certain amount of money at a given moment indicates that he values the money more than those things that he could obtain in exchange for it. Yet holding an amount of money at a given moment does not alter the fact that money is valued for its exchangeability. It merely shows that being prepared for later exchanges is valued more highly than making exchanges now. The satisfaction arising from an increased cash supply is often manifested in a feeling of greater security. This valuation springs from the belief that in the future one will be better able to meet

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<sup>5</sup> In a later section [not included in this volume] the explanation of modern day inflation as the result of governmental debasement of money through credit expansion will be presented.



his needs by spending his accumulated cash balance. That a money asset yields a service or satisfaction and thus is not sterile and unproductive—as has been widely held in the study of economics since the days of Aristotle—has been elucidated by Professor W.H. Hutt.<sup>6</sup>

The principle of diminishing marginal utility is no less applicable to money than to other commodities. Units of money are utilized in such a way that the most urgent goals or needs are met first. Because of the particularly easy divisibility of money, such allocations are made in more incremental steps than is the case with any other commodity. The marginal utility of money, then, equals the least highly valued use that the given unit serves. Just as in the case of the farmer's five sacks of grain, the satisfaction derived from a unit of money is the satisfaction that would be sacrificed if a unit were lost. The incidence of the loss will always be on the least important use that a unit was intended to serve. Yet this sacrifice is the most important use to which the marginal unit could be put. A person will thus allocate his money among consumption expenditures, production expenditures, and increases in his cash balance in terms of his scale of values or preferences.

### **Use and Exchange Value in the Market Economy**

An important characteristic of the use of commodities, including money, in the productive process under a system of social cooperation is that the user is not concerned only with his own satisfactions or preferences. Since he is engaged in the generation of goods and services that are to be used by other people, the exchange value of the commodities depends on the relative preferences of the other people after the completion of the production process. The number of dollars that the producer

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<sup>6</sup> See his essay, "The Yield from Money Held," in *On Freedom and Free Enterprise*, ed. Mary Sennholz (Princeton: Van Nostrand Co., Inc., 1956), pp. 196-216.

anticipates will be the result of his productive efforts hinges ultimately on his perception of the values of other persons.

In a world of certainty, there would be no difficulty in arriving at a money appraisal for the group of employed goods and services. In the modern market economy, however, only in the few cases of guaranteed and contracted sales is the money outcome of certain productive efforts relatively certain. And even in those few cases the invested resources are usually of a scope exceeding what would be required to meet the contracted sales, indicating that the producer is banking on the occurrence of sales not yet contracted. The whole task of having to produce to suit the wants of other persons in the face of an uncertain future is the essence of entrepreneurship.

It can be seen that in the market economy, characterized by the production of goods and services for subsequent exchange by a common medium of exchange, both use and exchange values are a vital part of the economic process. For the ultimate users of goods and services, the consumers, the satisfaction arising from consumption is the source of value or utility. For producers, the goods and services devoted to production are meaningful only in terms of the money and its exchange value, which they expect to generate from the sale of their product. But the crucial point to remember in distinguishing between these two values is that the exchange value of any productive good tends to be connected with the use value that the consumers attach to its end product. The amount of money that consumers can be expected to allocate to various consumer goods and services is strongly influenced by their subjective preferences. It is this anticipated money inflow that provides the basis for arriving at an exchange value for goods and services devoted to production. An explanation of how the prices of productive resources tend to be derived from the prices of consumer goods will be offered in a later section.

## The Pervasiveness of Subjective Valuation

Subjective valuation underlies all economic activity. Money is not a measure of value; quite the contrary, money is imputed a subjective value as a means of possessing other things. Any subjective valuation is immeasurable and is manifested only through specific choices and actions. Any particular choice is indicative of the decision maker's preference over all alternative courses of action considered during the time of decision. That this preference can be inferred from his actions does not mean that anything more than a preference is implied. As Rothbard has stated, "We deduce the existence of a specific value scale on the basis of the real act; we have no knowledge of that part of a value scale that is not revealed in real action."<sup>7</sup>

There is no way to measure quantitatively the satisfaction that the actor associates with his choice. Every choice requires rejection of the expected satisfaction from other possible choices; the highest ranked alternative forgone is the cost of any given decision. Benefits and costs are ultimately subjective. Every decision is predicated on the assumption that its benefits will exceed the advantages of the next best course of action; this is the background of every exchange. There is no such thing as an equal exchange. At the point of exchange, both buyer and seller consider themselves to be better off as a result of the exchange. In a system of extensive specialization and division of labor, most goods are produced for exchange. Specialized producers have little, if any, direct use for the goods they have produced; under the principle of diminishing marginal utility, the marginal utility of a unit of production is virtually zero as far as they are concerned. They place a higher valuation on the money that they can get for their goods. On the other hand, consumers or buyers value the goods obtained more highly than the money spent to

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<sup>7</sup> Murray N. Rothbard, *Man, Economy, and State* (Princeton: Van Nostrand Co., Inc.), I, 224.

acquire them. Exchanges can occur only when there are differences between the subjective valuations expressed by the parties of the exchanges.

The failure to consider this subjective orientation led to the unfortunate notion of the “economic man,” which depicted every participant in the market economy as relentlessly seeking at every turn to maximize his monetary position. This idea is unrealistic because what people actually seek in every action is a maximum psychic or subjective profit.

There are numerous examples of people forgoing additional monetary wealth because they deem the “cost” to be greater than its worth. There are investors who resist monetarily rewarding investments in industries whose products they find objectionable. Marketers have recognized that consumers sometimes consider factors besides the purchasable good and its related price. The availability of parking, the courtesy of clerks, and “store personality” now receive attention in discussions of merchandising. Wealthy entrepreneurs who continue to involve themselves in profit making even in their old age are undoubtedly motivated in many cases by something besides money. People often consider factors in addition to wages in deciding on a career or particular job.

The point of these examples is to demonstrate that people are not “economic men” in the classical sense and that money is not the ultimate basis of valuation. Even when dealing with money matters, people do not calculate monetarily in utmost detail every step and decision. They maximize subjectively but not monetarily, because monetary calculation must be sacrificed when its requirements on time and energy are recognized. Bohm-Bawerk dealt with this point:

If anyone insisted on deliberating with maximum scrupulousness every one of the economic acts he undertakes every day, if he

insisted on rendering a judgment of value throughout to the last detail concerning the most trifling good that he has to deal with by way of receipt or expenditure, by utilization or consumption, such a person would be too much occupied with reckoning and deliberating to call his life his own. The correct maxim and the one which would be observed in economic life is “Be no more accurate than it pays to be.” In really important things, be really exact; in moderately important things be moderately exact; in the myriad trifles of everyday economic life, just make the roughest sort of valuation.<sup>8</sup>

It can be stated, however, that, other things being equal, people do strive to maximize their monetary position in choosing among alternative courses of action. A person will choose the alternative that promises to maximize his monetary position as long as he is indifferent to the nonmonetary factors pertaining to the alternatives. In a money economy it is through the common medium of exchange that people are able to acquire most of those goods that yield them satisfaction. By maximizing their monetary position, they are able to command more goods and services from the market than they could with less money. This should not be misconstrued as meaning that all individuals ultimately seek maximum monetary wealth. The fervent pleas of participants in fund-raising endeavors whose stated objectives are to help the crippled surely are not symptoms of greed. Money is the means by which many desired ends can be achieved.

A person will accept a less than maximum monetary position only when the satisfaction obtained from nonmonetary factors relating to another choice more than offsets the satisfaction associated with the money. The role of nonmonetary factors is likely to be greater with regard to the decisions of employment than with regard to those decisions relating to investment and consumption expenditures. Investors generally desire to maximize the financial

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<sup>8</sup> Böhm-Bawerk, *Capital and Interest*, p. 202.

return on their investment; consumers generally desire to acquire goods at the lowest possible prices.

Thus, despite the subjectivity of benefits and costs, the terms *money revenues* and *money costs* are meaningful references to the monetary inflows and outflows that arise in connection with productive activities. Regardless of the nonmonetary factors that are important to a given producer, his monetary position or outcome is also important to him insofar as he desires to continue to purchase certain goods and services. This means he must give more than cursory attention to money costs and money revenues.

However, it must be stressed once more that these money calculations are not in any way measurements of value in the subjective sense. Rothbard has stressed the need to use the term value with care: "It is important to keep distinct the subjective use of the term in the sense of valuation and preference, as against the 'objective' use in the sense of purchasing power or price on the market."<sup>9</sup>

### **Suggested Readings**

Kirzner, Israel M. *Market Theory and the Price System*, pp. 45-62.

Menger, Carl. *Principles of Economics* (1871). Trans. Dingwall and B. Hoselitz. Glencoe, Ill.: Free Press, 1950, pp. 114-174.

Mises, Ludwig von. *Human Action: A Treatise on Economics*, pp. 92-98, 119-142.

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<sup>9</sup> Rothbard, *Man, Economy and State*, p. 271. Mises has chosen to make the distinction by using the term valuation with the subjective meaning and the term appraisal in the "objective," monetary sense. Cf. *Human Action*, pp. 331-33. The terms value and valuation have been employed in the subjective sense throughout this section.

## Chapter 5: The Market and Market Prices

### The Nature of the Market

The tendency to ascribe to the market economy the characteristic of being something other than the events caused by the choices and actions of individuals is incorrect. The market arises as a result of the willingness of individuals to interact. Every development in the market is the outcome of purposive actions on the part of individuals who are seeking to improve their own state of affairs.

This process of economic interaction and cooperation is the essence of the market; the market is not something physical but a process. Through the consummation of market transactions, individuals seek to improve their situations, i.e., enhance their own subjective satisfactions. The prices that emerge in the market are not unexplainable; they always are the result of subjective valuations expressed by individuals who choose to buy or sell or to abstain from either action. Mises emphasizes the human quality of all market activities:

It is customary to speak metaphorically of the automatic and anonymous forces actuating the “mechanism” of the market. In employing such metaphors people are ready to disregard the fact that the only factors directing the market and the determination of prices are purposive acts of men. There is no automatism; there are only men consciously and deliberately aiming at ends chosen. There are no mysterious mechanical forces; there is only the human will to remove uneasiness. There is no anonymity; there is I and you and Bill and Joe and all the rest. And each of us is both a producer and a consumer.... There is nothing inhuman or mystical with regard to the market. The market process is entirely a resultant of human actions. Every market phenomenon can be

traced back to definite choices of the members of the market society.<sup>10</sup>

## **Price Determination—Consumer Goods**

### *The Demand Side*

The underlying purpose of all productive effort in the market economy is the generation of goods and services to be consumed. Money prices for consumer goods and services occur continuously as possession of these goods and services moves from the producer to the consumer. A market price is the exchange ratio or relationship between a particular good and the medium of exchange. Although the conventional supply and demand explanation of how equilibrium prices tend to be set in order to clear the market of particular goods is legitimate, it is necessary to examine the real meaning behind the diagram of intersecting curves.

Each potential consumer allocates his money so that his most urgent wants are satisfied first. This means that for any particular good whose purchase he contemplates, there is a ranking within his scale of values. It must be remembered that his scale of values reflects the relative subjective importance that he attaches to each alternative use of his money. Each potential purchase has to compete with alternative potential purchases and with the possibility of his retaining his money. Thus an additional unit of a given consumable good will rank higher or lower than a given amount of money. If it is preferred over, say, six units of money, he is willing to purchase one unit of the good in exchange for six units of money. Conversely, if he prefers to retain six units of his money for some other use rather than acquire a unit of the good, he will not be willing to purchase it at a price of six money units.

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<sup>10</sup> Mises, *Human Action*, pp. 258, 315.



Assume that he will pay six units of money for one unit of a given good. Assume also that his rankings entail his preference for a second unit of the good at any price between, say, four and one money units, and that at a price of one unit of money, he is willing to buy a third unit. This means that at a price of four, five, or six money units he will buy one unit; at a price of two or three units of money he is willing to buy two units of the good; and if the price reaches one, he wishes to acquire three units.

It is in this way that a hypothetical individual's so-called demand curve can be drawn illustratively for each particular good that he might consider buying at a given moment. At each possible price, he either purchases a certain quantity of the good or purchases none of it. Because of the diminishing marginal utility of the good, he will be willing to increase the quantity purchased only at lower and lower prices. This is the reason for drawing his demand curve downward-sloping to the right. The total demand for a particular good then becomes the summation of each prospective consumer's individual demand. And though each individual demand may be unique, each curve depicting an individual's demand will be downward-sloping to the right. Thus the curve depicting total demand for a particular good will have the same kind of slope, i.e., downward-sloping to the right.

What is crucial to the understanding of demand is that the principle of diminishing marginal utility is constantly operating in the consumer's purchasing decisions. Each additional unit of a given good is applied to a less important use than the former unit acquired. And while the marginal utility of the good continuously falls with each added unit, the marginal utility relating to the remaining money rises. Increases in quantity demanded must be accompanied by decreases in price.

### *The Supply Side*

Though the usual discussion of demand recognizes the subjective nature of a consumer's buying decisions, the supply side of price analysis invariably fails to be related to subjective value, despite the great importance of subjective valuations in the selling decisions of producers.

Each individual producer who has a certain stock of some consumer good ranks the units of the good in the same manner that a prospective consumer ranks his stock of money. There are three possible uses to which he can allocate his stock: He can use the good directly; he can sell it now for money; or he can retain the good for future sale. He will place subjective valuations on these different possibilities, devoting the various units to the most important usages. Based on this allocation, he ranks on his value scale each unit (remember the term "unit" can embrace any number of smaller increments) to be sold and the amount of money to be received in return. For each possible unit price he will be willing to sell either a certain quantity of the good or none of it. He will have to decide whether what he gives up is less or more valuable to him than the price he receives.

It is likely that to specialized producers the value of the good in direct use is virtually nil. If his valuation of the good for purposes of future sale is also slight, he will be willing to sell nearly all of his stock at a meager price per unit, provided that the marginal utility of money falls slowly as he obtains more of it. To the extent that he values using some units for purposes other than immediate sale, there will be some prices that are too low for him. In the absence of any compensating nonmonetary factors, in no case would he be willing to sell more units for lower prices per unit than for higher prices per unit.

If there is little value in not selling his entire supply of goods, his supply curve will be more or less vertical, meaning that at any

possible price throughout the relevant range of his supply curve he is willing to sell all units of the good. Otherwise the curve will be upward-sloping to the right, indicating that as some units are sold, the marginal utility of the good increases in terms of the value of alternative uses, thereby requiring more money in exchange for additional units. The seller's supply curve will never be upward-sloping to the left.

Assume a seller has a stock of eight units of a particular good. If six units of money is more valuable to him than each of the units of the good, considering their alternative uses, then he will want to sell his entire stock at the unit price of six units of money. But suppose that at a price of five units of money he is willing to sell only six units of the good. Each of the two remaining units has a greater value to him than five units of money. At a price of four money units, he will sell only four units; at a price of three units of money, he is willing to sell but one unit of his good. And, at a price of one or two money units, he will not sell any of his stock of goods.

The law of marginal utility explains the behavior of this producer. The utility of a unit of his good in uses other than current sale rises as he decreases his stock. He insists on a greater amount of money in exchange for additional units. His selling decisions rest on his subjective valuations in the same way that the buying decisions of a given consumer depend on *his* scale of values.

A total supply curve for the good would entail the summation of all of the individual supply curves, and, thus, its various segments would be either vertical or upward-sloping to the right.

### **The Tendency Toward Equilibrium Prices**

The day-to-day tendency in the market is toward the establishment of an equilibrium price for each particular consumer good. Prevailing prices tend toward that price at which quantity supplied and quantity demanded are equal, a movement that attests to the

price system's capacity to coordinate the actions of persons engaged in different activities. The typical depiction of this tendency on a graph shows the equilibrium price at the point at which the market supply-and-demand curves intersect. Any price above or below the equilibrium price cannot persist because such a price will result, respectively, in either frustrated sellers or frustrated buyers. Prices are reduced by sellers if the market price is too high to clear the quantity offered; prices are bid upward by buyers if the price is too low to induce sellers to offer a quantity ample enough to satisfy the buyers' demand.

Market rents for leased durable consumer goods are established by the same pricing process. Rents are prices paid for the service units obtained through the right to use someone else's property over a period of time. Thus there is a demand for and supply of services obtainable through leased goods. Rothbard has explained this market development in the following way.

Since any good is bought only for the services that it can bestow, there is no reason why a certain period of service of a good may not be purchased. This can be done, of course, only where it is technically possible. Thus, the owner of a plot of land or of a sewing machine or of a house may "rent it out" for a certain period of time in exchange for money. While such hire may leave legal ownership of the good in the hands of the "landlord," the actual owner of the good's service for that period is the renter, or tenant.<sup>11</sup>

It should be mentioned at this point that there is a connection between the expected rental prices in the future and the purchase price of the good as a whole. The market price of the good tends to equal the present value of the expected future rentals. If the present value of expected future rentals is greater than the price of the good as a whole, more people will want to own the good as

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<sup>11</sup> Rothbard, *Man, Economy, and State*, I, p. 170.

opposed to renting it. Meanwhile, present owners will be more reluctant to sell. This excess demand for the good will cause the price of the good to be bid upward toward the present value of future rentals. On the other hand, if the present value of expected rentals is less than the price of the good, fewer will want to buy the good and owners will want to sell rather than rent the good. This oversupply of the good causes its price to be lowered to come more in line with the present value of expected rentals, and thus price relations are established in the market through the same forces of supply and demand. Since prices are subject to change, the predicted future rentals are not simply a multiple of present rental prices. The relationship between the market price of the good and future rents is only a long-run tendency. The explanation of what is going on in the pricing process is not served merely by diagrams, however. One has to think of the process in terms of acting individuals following their own particular subjective valuations. If the price is too high or too low relative to the equilibrating price, individuals behave purposefully to correct the situation. Every exchange requires two mutually benefited parties. As Mises has said, the process is not mechanical or inhuman.

When it is said that the market process tends to yield an equilibrium price for each good, no reference is being made to the pricing of all physically identical goods. If consumers view the offerings of a certain supplier as being different in some way from those of other sellers, the good is a different good for the purposes of economic analysis, even if its observable physical attributes are the same as those of other sellers' goods. What really counts is how consumers perceive the various supplies of goods brought before them. Similarly, goods situated a long distance away are not the same as goods a short distance from use. The "same good" means the units of the good are equally serviceable to the buyer. Goods that have to be transported from far away are less complete

and, hence, less serviceable because transportation to point of acquisition is part of the production process.

Thus different market prices can prevail for goods that a hypothetical, neutral observer, focusing solely on physical qualities, would deem identical. This is what Mises means when he says that

the market does not generate prices of land or motorcars in general nor wage rates in general, but prices for a certain piece of land and for a certain car and wage rates for a performance of a certain kind. It does not make any difference for the pricing process to what class the things exchanged are to be assigned from any point of view. However they may differ in other regards, in the very act of exchange they are nothing but commodities, i.e., things valued on account of their power to remove felt uneasiness.<sup>12</sup>

It is important to emphasize in price analysis that the movement toward market equilibrium prices is a tendency that seldom reaches fruition because of the continuous changes that occur in people's subjective valuations and in the supply of each good. To assume that established prices will perpetuate themselves is to conceive value as objective and unchanging. But individuals, both buyers and sellers, experience constant change in their valuations, purposes, and acts. The very essence of action is change. The ceaseless changing of human choices and actions upsets the tendency in the market for the establishment of equilibrating prices. Yet, with the advent of every change in market data, the process sets out in a new direction toward a different equilibrium price. Price analysis resorts to the mental tool of equilibrium prices in order to explain the continuous tendency of the market process. Market prices are the result of the particular circumstances that existed at the time of their occurrence.

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<sup>12</sup> Mises, *Human Action*, p. 393.

The changeability of prices makes inappropriate any reference in the strict sense to prices as present or current prices. As Mises says, “prices are either prices of the past or expected prices of the future.”<sup>13</sup> To refer to prices as “current” prices is to say that immediate future prices will be the same as the historical prices of the most recent past, say half an hour ago. Since prices generally are not violently restructured from moment to moment in the market, recent past prices are useful starting points in the projection of future prices. But it is future prices that are of primary significance to each actor. Past prices convey directly no certain *knowledge* about future prices.

### **The Irrelevance of Past Costs**

It should be stressed that this analysis applies to goods already produced; these are the goods that enter into the day-to-day pricing of consumer goods. This is the reason the analysis needs to make no reference to the seller’s money costs of production. The individual seller’s costs were shown to relate to his subjective scale of values—that is, to his own valuation of the good in its next best alternative use of either direct use or future sale. Once the goods have been produced, his past money costs are irrelevant to deciding how to use these goods. As Thirlby has said, “Cost is ephemeral. The cost involved in a particular decision loses its significance with the making of a decision because the decision displaces the alternative course of action.”<sup>14</sup> Jevons stressed the same truth when he stated, “In commerce bygones are forever bygones and we are always starting clear at each moment, judging the value of things with a view to future utility. Industry is essentially prospective not retrospective.”<sup>15</sup> The seller’s task is to

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<sup>13</sup> *Human Action*, p. 217.

<sup>14</sup> G.F. Thirlby, “The Subjective Theory of Value and Accounting ‘Cost,’” *Economica* (February 1946): 34.

<sup>15</sup> William Stanley Jevons, *The Theory of Political Economy*, 3rd ed. (London: MacMillan & Co., 1888), p. 164.

make the best of his situation in light of his possessing a certain stock of goods.

Thus it is not correct to say that prices are determined by demand and by money costs. Money costs enter into the seller's decisions about the undertaking of production.<sup>16</sup> This matter of planning production is treated in chapter 5. Once the goods are produced, only subjective valuations expressed by individual buyers and sellers relating to these goods and to their exchange ratios in money terms are effective in the establishment of market prices.

### **The Preeminence of Consumer Valuations**

In the final analysis the subjective valuations of the consumers are the principal factor in the determination of market prices of consumer goods in the advanced market economy. It can be seen that the subjective valuations of any given seller in possession of a stock of goods ultimately are concerned with generating the greatest amount of money revenues through the sale of the goods. This is not to say that money measures his satisfaction in any way; it simply recognizes the fact that more money means more to him than does less money in a situation in which nonmonetary factors have already been considered. His preference concerning nonmonetary factors would have been weighed in his decision to undertake the production of the given goods. With more money he is able to acquire more of those things that yield him satisfaction.

Now to reduce the object of his valuations to the money obtainable from consumers is to render insignificant in his scale of values one possible use of the goods: direct use of the goods by the seller himself as opposed to their sale. To justify the subservience

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<sup>16</sup> Buchanan makes the useful distinction between "choice-influencing" and "choice-influenced" cost. In this sense, actual money costs emerge as choice-influenced costs. See James M. Buchanan, *Cost and Choice* (Chicago: Markham Publishing Co., 1969), pp. 44, 45.



of use value to exchange value, one needs only to regard the predicament of a specialized producer in the advanced market economy: He simply will have little direct use for the stock of a particular good. The seller of shoes is not likely to desire to retain a large quantity of shoes for consumption purposes. His only recourse is eventually to exchange them for the best possible price. He will consider the price for which he can currently exchange the shoes as well as the price he expects to be realizable in the future.

These are the concerns of his subjective valuations, and his own time preference will enter into the valuation of future prices. If he places virtually no value on use value or future exchange value, as reflected by a vertical supply curve, the market price will equal that price necessary to clear the market. On the other hand, if expected prices of the future are high enough to deter current sale of all the goods at any price, as evidenced by a supply curve with upward-sloping segments, his valuation of his goods for future sales purposes is no less dependent on consumer evaluations as he anticipates them to be reflected in future money prices. And eventually, when these goods currently being held back at lower prices are offered for sale, the price willingly paid by consumers will be the determining factor. Exchange value is by definition derived from the valuations of those who are to receive the good in exchange and who willingly pay money for it.

### **Suggested Readings**

Mises, Ludwig von. *Human Action: A Treatise on Economics*, pp. 257-289 and pp. 327-397.

Rothbard, Murray N. *Man, Economy, and State: A Treatise on Economic Principles*. New York: Van Nostrand, 1962, pp. 160-272.

## Reading 4

### The Division of Labor and Social Order

#### Context and Summary

This classic text hardly needs an introduction. “I, Pencil” by Leonard E. Read amazes the reader with the overwhelming complexity of production, even for a simple good like a pencil. Moreover, we see the extensive division of labor behind the goods we enjoy: “Actually, millions of human beings have had a hand in my creation, no one of whom even knows more than a very few of the others.”

The division of labor, in simple terms, means that we each specialize in a particular set of tasks and then trade with others. Its opposite is economic isolation—each person consumes only what he or she can produce.

One of the marvels of the division of labor is that it represents a giant cooperative effort between billions of people to provide for each other. Another marvel is that it isn’t—and couldn’t—be directed by a central planning board. It seems to work on its own, spontaneously, yet the outcome is not chaotic. It is directed at producing consumer goods in an economizing way.

Ludwig von Mises also held a high view of the division of labor, and its corollary, the Ricardian Law of Association.<sup>1</sup> It is human civilization itself, and is contrasted with primitivism, isolation, and conflict:

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<sup>1</sup> The law of association states that each individual must necessarily have at least one good of which they are the low opportunity cost producer, i.e., everybody has a comparative advantage and therefore a spot in the division of labor.

The law of association makes us comprehend the tendencies which resulted in the progressive intensification of human cooperation. We conceive what incentive induced people not to consider themselves simply as rivals in a struggle for the appropriation of the limited supply of means of subsistence made available by nature. [...] Every step forward on the way to a more developed mode of the division of labor serves the interests of all participants. [...] The factor that brought about primitive society and daily works toward its progressive intensification is human action that is animated by the insight into the higher productivity of labor achieved under the division of labor.<sup>2</sup>

Indeed, Mises argued that adopting policies that threaten the workings of the division of labor threaten civilization. Socialism, for example, involves a prohibition of the private ownership of the means of production, which disallows exchange and prices for the means of production. Thus, “In abolishing economic calculation the general adoption of socialism would result in complete chaos and the disintegration of social cooperation under the division of labor.”<sup>3</sup>

May we never take the division of labor for granted, then. All human civilization depends on us appreciating and seeing the wonder in how a pencil is made.

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<sup>2</sup> Ludwig von Mises, (1998) *Human Action*, Scholar’s Edition, Auburn, AL: Ludwig von Mises Institute, pp. 159-160.

<sup>3</sup> *Ibid.*, p. 857.

# I, Pencil

**Leonard E. Read**

As I sat contemplating the miraculous make-up of an ordinary lead pencil, the thought flashed in mind: *I'll bet there isn't a person on earth who knows how to make even so simple a thing as a pencil.*

If this could be demonstrated, it would dramatically portray the miracle of the market and would help to make clear that all manufactured things are but manifestations of creative-energy exchanges, that these are, in fact, spiritual phenomena. The lessons in political economy this could teach!

There followed that not-to-be-forgotten day at the pencil factory, beginning at the receiving dock, covering every phase of countless transformations, and concluding in an interview with the chemist.

Had you seen what I saw, you, also, might have struck up a warm friendship with that amazing character, I, PENCIL.<sup>4</sup>

Being a writer in his own right, let I, PENCIL speak for himself:

I am a lead pencil – the ordinary wooden pencil familiar to all boys and girls and adults who can read and write.

Writing is both my vocation and my avocation; that's all I do.

You may wonder why I should write a genealogy. Well, to begin with, my story is interesting. And, next, I am a mystery – more so than a tree or a sunset or even a flash of lightning. But, sadly, I am taken for granted by those who use me, as if I were a mere

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<sup>4</sup> His official name is "Mongol 482." His many ingredients are assembled, fabricated, and finished by Eberhard Faber Pencil Company, Wilkes-Barre, Pennsylvania.

incident and without background. This supercilious attitude relegates me to the level of the commonplace. This is a species of the grievous error in which mankind cannot too long persist without peril. For, the wise G.K. Chesterton observed, “We are perishing for want of wonder, not for want of wonders.”<sup>5</sup>

I, Pencil, simple though I appear to be, merit your wonder and awe, a claim I shall attempt to prove. In fact, if you can understand me – no, that’s too much to ask of anyone – if you can become aware of the miraculousness that I symbolize, you can help save the freedom mankind is so unhappily losing. I have a profound lesson to teach. And I can teach this lesson better than can an automobile or an airplane or a mechanical dishwasher because – well, because I am seemingly so simple.

Simple? Yet, not a single person on the face of this earth knows how to make me. This sounds fantastic, doesn’t it? Especially when it is realized that there are about one and one-half billion of my kind produced in the United States each year.

Pick me up and look me over. What do you see? Not much meets the eye – there’s some wood, lacquer, the printed labeling, graphite lead, a bit of metal, and an eraser.

### **Innumerable Antecedents**

Just as you cannot trace your family tree back very far, so is it impossible for me to name and explain all my antecedents. But I would like to suggest enough of them to impress upon you the richness and complexity of my background.

My family tree begins with what in fact is a tree, a cedar of straight grain that grows in Northern California and Oregon. Now contemplate all the saws and trucks and rope and the countless other gear used in harvesting and carting the cedar logs to the railroad siding. Think of all the persons and the numberless skills

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<sup>5</sup> G. K. Chesterton

that went into their fabrication: the mining of ore, the making of steel and its refinement into saws, axes, motors; the growing of hemp and bringing it through all the stages to heavy and strong rope; the logging camps with their beds and mess halls, the cookery and the raising of all the foods. Why, untold thousands of persons had a hand in every cup of coffee the loggers drink!

The logs are shipped to a mill in San Leandro, California. Can you imagine the individuals who make flat cars and rails and railroad engines and who construct and install the communication systems incidental thereto? These legions are among my antecedents.

Consider the millwork in San Leandro. The cedar logs are cut into small, pencil-length slats less than one-fourth of an inch in thickness. These are kiln dried and then tinted for the same reason women put rouge on their faces. People prefer that I look pretty, not a pallid white. The slats are waxed and kiln dried again. How many skills went into the making of the tint and the kilns, into supplying the heat, the light and power, the belts, motors, and all the other things a mill requires? Sweepers in the mill among my ancestors? Yes, and included are the men who poured the concrete for the dam of a Pacific Gas & Electric Company hydroplant, which supplies the mill's power!

Don't overlook the ancestors present and distant who have a hand in transporting 60 carloads of slats across the nation.

Once in the pencil factory – \$4,000,000 in machinery and building, all capital accumulated by thrifty and saving parents of mine – each slat is given eight grooves by a complex machine, after which another machine lays leads in every other slat, applies glue, and places another slat atop – a lead sandwich, so to speak. Seven brothers and I are mechanically carved from this “wood-clinched” sandwich.

My “lead” itself – it contains no lead at all – is complex. The graphite is mined in Ceylon. Consider these miners and those who make their many tools and the makers of the paper sacks in which the graphite is shipped and those who make the string that ties the sacks and those who put them aboard ships and those who make the ships. Even the lighthouse keepers along the way assisted in my birth – and the harbor pilots.

The graphite is mixed with clay from Mississippi in which ammonium hydroxide is used in the refining process. Then wetting agents are added such as sulfonated tallow – animal fats chemically reacted with sulfuric acid. After passing through numerous machines, the mixture finally appears as endless extrusions – as from a sausage grinder – cut to size, dried, and baked for several hours at 1,850 degrees Fahrenheit. To increase their strength and smoothness the leads are then treated with a hot mixture that includes candelilla wax from Mexico, paraffin wax, and hydrogenated natural fats.

My cedar receives six coats of lacquer. Do you know all the ingredients of lacquer? Who would think that the growers of castor beans and the refiners of castor oil are a part of it? They are. Why, even the processes by which the lacquer is made a beautiful yellow involve the skills of more persons than one can enumerate!

Observe the labeling. That’s a film formed by applying heat to carbon black mixed with resins. How do you make resins and what, pray, is carbon black?

My bit of metal – the ferrule – is brass. Think of all the persons who mine zinc and copper and those who have the skills to make shiny sheet brass from these products of nature. Those black rings on my ferrule are black nickel. What is black nickel and how is it applied? The complete story of why the center of my ferrule has no black nickel on it would take pages to explain.

Then there's my crowning glory, inelegantly referred to in the trade as "the plug," the part man uses to erase the errors he makes with me. An ingredient called "factice" is what does the erasing. It is a rubberlike product made by reacting rapeseed oil from the Dutch East Indies with sulfur chloride. Rubber, contrary to the common notion, is only for binding purposes. Then, too, there are numerous vulcanizing and accelerating agents. The pumice comes from Italy; and the pigment that gives "the plug" its color is cadmium sulfide.

### **No One Knows**

Does anyone wish to challenge my earlier assertion that no single person on the face of this earth knows how to make me?

Actually, millions of human beings have had a hand in my creation, no one of whom even knows more than a very few of the others. Now, you may say that I go too far in relating the picker of a coffee berry in far-off Brazil and food growers elsewhere to my creation; that this is an extreme position. I shall stand by my claim. There isn't a single person in all these millions, including the president of the pencil company, who contributes more than a tiny, infinitesimal bit of know-how. From the standpoint of know-how the only difference between the miner of graphite in Ceylon and the logger in Oregon is in the type of know-how. Neither the miner nor the logger can be dispensed with, any more than can the chemist at the factory or the worker in the oil field — paraffin being a byproduct of petroleum.

Here is an astounding fact: neither the worker in the oil field nor the chemist nor the digger of graphite or clay nor any who mans or makes the ships or trains or trucks nor the one who runs the machine that does the knurling on my bit of metal nor the president of the company performs his singular task because he wants me. Each one wants me less, perhaps, than does a child in the first grade. Indeed, there are some among this vast multitude



who never saw a pencil nor would they know how to use one. Their motivation is other than me. Perhaps it is something like this: each of these millions sees that he can thus exchange his tiny know-how for the goods and services he needs or wants. I may or may not be among these items.

### **No Mastermind**

There is a fact still more astounding: the absence of a mastermind, of anyone dictating or forcibly directing these countless actions which bring me into being. No trace of such a person can be found. Instead, we find the Invisible Hand at work. This is the mystery to which I earlier referred.

It has been said that “only God can make a tree.” Why do we agree with this? Isn’t it because we realize that we ourselves could not make one? Indeed, can we even describe a tree? We cannot, except in superficial terms. We can say, for instance, that a certain molecular configuration manifests itself as a tree. But what mind is there among men that could even record, let alone direct, the constant changes in molecules that transpire in the life span of a tree? Such a feat is utterly unthinkable!

I, Pencil, am a complex combination of miracles: a tree, zinc, copper, graphite, and so on. But to these miracles that manifest themselves in nature an even-more-extraordinary miracle has been added: the configuration of creative human energies – millions of tiny know-hows configuring naturally and spontaneously in response to human necessity and desire and in the absence of any human masterminding! Since only God can make a tree, I insist that only God could make me. Man can no more direct these millions of know-hows to bring me into being than he can put molecules together to create a tree.

The above is what I meant when writing, “If you can become aware of the miraculousness that I symbolize, you can help save the freedom mankind is so unhappily losing.” For, if one is aware

that these know-hows will naturally, yes, automatically, arrange themselves into creative and productive patterns in response to human necessity and demand – that is, in the absence of governmental or any other coercive masterminding – then one will possess an absolutely essential ingredient for freedom: a faith in free people. Freedom is impossible without this faith.

Once government has had a monopoly of a creative activity such, for instance, as the delivery of the mails, most individuals will believe that the mails could not be efficiently delivered by men acting freely. And here is the reason: each one acknowledges that he himself doesn't know how to do all the things incident to mail delivery. He also recognizes that no other individual could do it. These assumptions are correct. No individual possesses enough know-how to perform a nation's mail delivery any more than any individual possesses enough know-how to make a pencil. Now, in the absence of faith in free people – in the unawareness that millions of tiny know-hows would naturally and miraculously form and cooperate to satisfy this necessity – the individual cannot help but reach the erroneous conclusion that mail can be delivered only by governmental “masterminding.”

### **Testimony Galore**

If I, Pencil, were the only item that could offer testimony on what men and women can accomplish when free to try, then those with little faith would have a fair case. However, there is testimony galore; it's all about us and on every hand. Mail delivery is exceedingly simple when compared, for instance, to the making of an automobile or a calculating machine or a grain combine or a milling machine or to tens of thousands of other things.

Delivery? Why, in this area where men have been left free to try, they deliver the human voice around the world in less than one second; they deliver an event visually and in motion to any person's home when it is happening; they deliver 150 passengers

from Seattle to Baltimore in less than four hours; they deliver gas from Texas to one's range or furnace in New York at unbelievably low rates and without subsidy; they deliver each four pounds of oil from the Persian Gulf to our Eastern Seaboard – halfway around the world – for less money than the government charges for delivering a one-ounce letter across the street!

The lesson I have to teach is this: Leave all creative energies uninhibited. Merely organize society to act in harmony with this lesson. Let society's legal apparatus remove all obstacles the best it can. Permit these creative know-hows freely to flow. Have faith that free men and women will respond to the Invisible Hand. This faith will be confirmed. I, Pencil, seemingly simple though I am, offer the miracle of my creation as testimony that this is a practical faith, as practical as the sun, the rain, a cedar tree, the good earth.

## Reading 5

### Money

#### Context and Summary

It is crucial for us to understand the fundamentals of money due to all the myths, misconceptions, and wrongheaded policies surrounding money. In this chapter from *What Has Government Done to Our Money?*, Rothbard draws from Menger and Mises to explain the origins of money out of barter. Market participants in a barter economy notice the limitations of barter and begin using a medium of exchange to help them achieve their own ends. The state is unnecessary in this process and it is unable to create money *ex nihilo*.

The state, of course, cannot help but meddle with and co-opt money. Even though the only optimal supply of money is the one that prevails in an unhampered market, governments everywhere have attained the ability to inflate without constraint through fiat paper money. Despite the non-neutrality of money and the dubiousness of a stable price level, central banks have “inflation targets”. Keynesians decry money hoarding due to the false view that it inhibits economic growth and full employment, yet it is incorrect to think of money “circulating” – money is always *held* by somebody.

We will see that the errors multiply when we discuss banking, which is all the more reason to gain a solid understanding of money.

The following reading is chapter 2 of *What Has Government Done to Our Money?* by Murray Rothbard.

# Selection from *What Has Government Done to Our Money?*

Murray N. Rothbard

## Chapter 2: Money in a Free Society

### 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.

### **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.

### **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 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 preexisting 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).<sup>1</sup> Thus, government is powerless to create money for the economy; it can only be developed by the processes of the free market.

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.)

### **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

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<sup>1</sup> On the origin of money, cf. Carl Menger, *Principles of Economics* (Glencoe, Ill.: Free Press, 1950), pp. 257–71; Ludwig von Mises, *The Theory of Money and Credit*, 3rd ed. (New Haven, Conn.: Yale University Press, 1951), pp. 97–123.

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.<sup>2</sup> 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.

### **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.<sup>3</sup> Gold is no exception. Gold, like other commodities, will be traded in units of weight.<sup>4</sup>

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

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<sup>2</sup> Money 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.

<sup>3</sup> Even those goods nominally exchanging in terms of volume (bale, bushel, etc.) tacitly assume a standard weight per unit volume.

<sup>4</sup> One 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.

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 Joachimsthal. 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.”<sup>5</sup> The dollar was

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<sup>5</sup> Actually, the pound sterling exchanged for \$4.87, but we are using \$5 for greater convenience of calculation.

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, francs, 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 used, it would be reckoned in pounds or tons. Clearly, the size makes no difference to the economist.

### **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.<sup>6</sup> 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

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<sup>6</sup> Iron hoes have been used extensively as money, both in Asia and Africa.

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 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 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.

### **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. Abraded 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 market place 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 debase coin, counterfeit coin, or otherwise with full legal sanction perform as the sole villain in the market place? 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 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 prosecuted. 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.<sup>7</sup>

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 90 percent of the value of the full-bodied coins, and the nominal face-value of the former would have to be repudiated.<sup>8</sup> 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.

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<sup>7</sup> See Herbert Spencer, *Social Statics* (New York: D. Appleton 1890), p. 438.

<sup>8</sup> To 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.



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 government. Privately-minted gold coins circulated in California as late as 1848.<sup>9</sup>

### 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

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<sup>9</sup> For historical examples of private coinage, see B.W. Barnard, “The use of Private Tokens for Money in the United States,” *Quarterly Journal of Economics* (1916-17): 617-26; Charles A. Conant, *The Principles of Money and Banking* (New York: Harper Bros., 1905), vol. 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), vol. I, pp. 47-51. On coinage, also see Mises, *Theory of Money and Credit*, pp. 65-67; and Edwin Cannan, *Money*, 8th ed. (London: Staples Press, 1935), pp. 33ff.

*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 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’s 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’s 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 that 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.<sup>10</sup>

### **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 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

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<sup>10</sup> Gold 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.

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 “disharding” 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.”<sup>11</sup> 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.

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<sup>11</sup> At 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.

Thus, ironically, if it were not for the uncertainty of the real world, there could be no monetary system at all! In 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 nonmonetary 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.

### **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.<sup>12</sup> 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 uncertainty, on their ability to anticipate the conditions of the market. After all, the price of money is no different from any other free price on the market. They can change in response to changes in demand of individuals; why not the monetary price?

Artificial stabilization would, in fact, seriously distort and hamper the workings of the market. As we have indicated, people would be unavoidably frustrated in their desires to alter their real proportion of cash balances; there would be no opportunity to change cash balances in proportion to prices. Furthermore, improved standards of living come to the public from the fruits of capital investment. Increased productivity tends to lower prices (and costs) and thereby distribute the fruits of free enterprise to all the public, raising the standard of living of all consumers. Forcible

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<sup>12</sup> How the government would go about this is unimportant at this point. Basically, it would involve governmentally-managed changes in the money supply.

propping up of the price level prevents this spread of higher living standards.

Money, in short, is not a “fixed yardstick.” It is a commodity serving as a medium for exchanges. Flexibility in its value in response to consumer demands is just as important and just as beneficial as any other free pricing on the market.

### **Coexisting Moneys**

So far we have obtained the following picture of money in a purely free economy: gold or silver coming to be used as a medium of exchange; gold minted by competitive private firms, circulating by weight; prices fluctuating freely on the market in response to consumer demands and supplies of productive resources. Freedom of prices necessarily implies freedom of movement for the purchasing power of the money-unit; it would be impossible to use force and interfere with movements in the value of money without simultaneously crippling freedom of prices for all goods. The resulting free economy would *not* be chaotic. On the contrary, the economy would move swiftly and efficiently to supply the wants of consumers. The money market can also be free.

Thus far, we have simplified the problem by assuming only one monetary metal—say, gold. Suppose that *two* or more moneys continue to circulate on the world market—say, gold and silver. Possibly, gold will be the money in one area and silver in another, or else they both may circulate side by side. Gold, for example, being ounce-for-ounce more valuable on the market than silver, may be used for larger transactions and silver for smaller. Would not two moneys be impossibly chaotic? Wouldn't the government have to step in and impose a fixed ration between the two (“bimetallism”) or in some way demonetize one or the other metal (impose a “single standard”)?

It is very possible that the market, given free rein, might eventually establish one single metal as money. But in recent centuries, silver

stubbornly remained to challenge gold. It is not necessary, however, for the government to step in and save the market from its own folly in maintaining two moneys. Silver remained in circulation precisely because it was convenient (for small change, for example). Silver and gold could easily circulate side by side, and have done so in the past. The relative supplies of and demands for the two metals will determine the exchange rate between the two, and this rate, *like any other price*, will continually fluctuate in response to these changing forces. At one time, for example, silver and gold ounces might exchange at 16:1, another time at 15:1, etc. Which metal will serve as a unit of account depends on the concrete circumstances of the market. If gold is the money of account, then most transactions will be reckoned in gold ounces, and silver ounces will exchange at a freely-fluctuating price in terms of the gold.

It should be clear that the exchange rate and the purchasing powers of the units of the two metals will always tend to be proportional. If prices of goods are fifteen times as much in silver as they are in gold, then the exchange rate will tend to be set at 15:1. If not, it will pay to exchange from one to the other until parity is reached. Thus, if prices are fifteen times as much in terms of silver as gold while silver/gold is 20:1, people will rush to sell their goods for gold, buy silver, and then rebuy the goods with silver, reaping a handsome gain in the process. This will quickly restore the “purchasing power parity” of the exchange rate; as gold gets cheaper in terms of silver, silver prices of goods go up, and gold prices of goods go down.

The free market, in short, is eminently *orderly* not only when money is free but even when there is more than one money circulating.

What kind of “standard” will a free money provide? The important thing is that the standard not be imposed by government decree. If left to itself, the market may establish gold

as a single money (“gold standard”), silver as a single money (“silver standard”), or, perhaps most likely, both as moneys with freely-fluctuating exchange rates (“parallel standards”).<sup>13</sup>

## Summary

What have we learned about money in a free society? We have learned that *all* money has originated, and must originate, in a useful commodity chosen by the free market as a medium of exchange. The unit of money is simply a unit of weight of the monetary commodity—usually a metal, such as gold or silver. Under freedom, the commodities chosen as money, their shape and form, are left to the voluntary decisions of free individuals. Private coinage, therefore, is just as legitimate and worthwhile as any business activity. The “price” of money is its purchasing power in terms of all goods in the economy, and this is determined by its supply, and by every individual’s demand for money. Any attempt by government to fix the price will interfere with the satisfaction of people’s demands for money. If people find it more convenient to use more than one metal as money, the exchange rate between them on the market will be determined by the relative demands and supplies, and will tend to equal the ratios of their respective purchasing power. Once there is enough supply of a metal to permit the market to choose it as money, no increase in supply can improve its monetary function. An increase in money supply

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<sup>13</sup> For historical examples of parallel standards, see W. Stanley Jevons, *Money and the Mechanism of Exchange* (London: Kegan Paul, 1905), pp. 88–96, and Robert S. Lopez, “Back to Gold, 1252,” *Economic History Review* (December 1956): 224. Gold coinage was introduced into modern Europe almost simultaneously in Genoa and Florence. Florence instituted bimetallism, while “Genoa, on the contrary, in conformity to the principle of restricting state intervention as much as possible, did not try to enforce a fixed relation between coins of different metals,” *ibid.* On the theory of parallel standards, see Mises, *Theory of Money and Credit*, pp. 179f. For a proposal that the United States go onto a parallel standard, by an official of the U.S. Assay Office, see I.W. Sylvester, *Bullion Certificates as Currency* (New York, 1882).

will then merely dilute the effectiveness of each ounce of money without helping the economy. An increased stock of gold or silver, however, fulfills more *nonmonetary* wants (ornament, industrial purposes, etc.) served by the metal, and is therefore socially useful. Inflation (an increase in money substitutes not covered by an increase in the metal stock) is never socially useful, but merely benefits one set of people at the expense of another. Inflation, being a fraudulent invasion of property, could not take place on the free market.

In sum, freedom can run a monetary system as superbly as it runs the rest of the economy. Contrary to many writers, there is nothing special about money that requires extensive governmental dictation. Here, too, free men will best and most smoothly supply all their economic wants. For money as for all other activities of man, “liberty is the mother, not the daughter, of order.”

## Reading 6

### Banking

#### Context and Summary

Busting monetary myths was easy once we grasped the fundamentals, like the origin of money, the value of money, the optimal supply of money, etc. Rothbard does the same in this reading from *The Case Against the Fed*. Before we can discuss central banking, open market operations, and reserve requirements, we must isolate, define, and explain the essential functions of banks as money warehouses and financial intermediaries.

Loan banking is when a bank uses bank customers' savings to extend loans to borrowers and rewards the savers with a cut of the interest earned on the saved funds. A crucial part of this arrangement is that the money is relinquished by the savers for a certain period of time.

Warehouse banking is when a bank merely safeguards a depositor's money. The depositor retains ownership of the money and the ability to withdraw it at par on demand. The depositor would have to pay the bank a small fee for this service that the bank is providing.

In this reading, Rothbard discusses the consequences of mixing these two functions. What happens if a bank uses deposits as a source of funds to extend loans? In short, it opens itself up to the possibility of a bank run, in which the bank would not be able to redeem everyone's withdrawal requests. Also, and even more importantly, the supply of loans and the interest rate no longer reflect time preferences. The supply of loans now includes funds

that were not relinquished by their owners. Their personal net worth calculations and spending choices continue as if their money is sitting in their account, ready to be spent or withdrawn.

But it isn't. And the results are Cantillon effects and boom-bust cycles (covered in a later chapter) from this expansion of credit via fractional reserve banking. Another harmful effect of the instability of fractional reserve banking systems is central banking. Central banks bring all the private banks into a cartel with government-granted monopoly privileges. The government is happy to grant these privileges because it receives in exchange the ability to borrow and spend without limit.

Central banks magnify the instability of fractional reserve banking and the size and scope of the government. The costs, of course, are not borne by the individual banks or the politicians and bureaucrats with the central bank's blank check in hand, but by the private economy of producers and consumers.

The following reading is selected sections from *The Case Against the Fed* by Murray Rothbard.



## Selections from *The Case Against the Fed*

Murray N. Rothbard

### 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**

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Rothbard Loan Bank

Assets	Equity + Liabilities
Cash: \$10,000	Owned by Rothbard: \$10,000
<b>Total: \$10,000</b>	<b>Total: \$10,000</b>

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 transaction. If Joe becomes insolvent and cannot repay, that would be a normal business or entrepreneurial failure.

**Figure 2**  
**The Bank Makes Loans**

Assets	Equity + Liabilities
Cash: \$1,000 IOU from Joe: \$9,500	Owned by Rothbard: \$10,500
<b>Total: \$10,500</b>	<b>Total: \$10,500</b>

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

**Figure 3**  
**The Loan Bank Borrows Money**

Assets	Equity + Liabilities
Cash: \$1,000	Owed in CDs: \$40,000
IOUs: \$49,500	Owned by Rothbard: \$10,500
<b>Total: \$50,500</b>	<b>Total: \$50,500</b>

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:

Again, the important point is that the bank has grown, has borrowed and reloaned, and there has been no inflationary creation of new money, no fraudulent activity, and no counterfeiting. If the Rothbard Bank makes a bad loan, and becomes insolvent, then that is a normal entrepreneurial error. So far, loan banking has been a perfectly legitimate and productive activity.

### **Deposit Banking**

We get closer to the nub of the problem when we realize that, historically, there has existed a very different type of “bank” that has no necessary logical connection, although it often had a practical connection, with loan banking. Gold coins are often heavy, difficult to carry around, and subject to risk of loss or theft.

People began to “deposit” coins, as well as gold or silver bullion, into institutions for safekeeping. This function may be thought of as a “money-warehouse.” As in the case of any other warehouse, the warehouse issues the depositor a receipt, a paper ticket pledging that the article will be redeemed at any time “on demand,” that is, on presentation of the receipt. The receipt-holder, on presenting the ticket, pays a storage fee, and the warehouse returns the item.

The first thing to be said about this sort of deposit is that it would be very peculiar to say that the warehouse “owed” the depositor the chair or watch he had placed in its care, that the warehouse is the “debtor” and the depositor the “creditor.” Suppose, for example, that you own a precious chair and that you place it in a warehouse for safekeeping over the summer. You return in the fall and the warehouseman says, “Gee, sorry, sir, but I’ve had business setbacks in the last few months, and I am not able to pay you the debt (the chair) that I owe you.” Would you shrug your shoulders, and write the whole thing off as a “bad debt,” as an unwise entrepreneurial decision on the part of the warehouseman? Certainly not. You would be properly indignant, for you do not regard placing the chair in a warehouse as some sort of “credit” or “loan” to the warehouseman. You do not lend the chair to him; you continue to own the chair, and you are placing it in his trust. He doesn’t “owe” you the chair; the chair is and always continues to be yours; he is storing it for safekeeping. If the chair is not there when you arrive, you will call for the gendarmes and properly cry “theft!” You, and the law, regard the warehouseman who shrugs his shoulders at the absence of your chair not as someone who had made an unfortunate entrepreneurial error, but as a criminal who has absconded with your chair. More precisely, you and the law would charge the warehouseman with being an “embezzler,” defined by *Webster’s* as “one who appropriates fraudulently to one’s own use what is entrusted to one’s care and management.”

Placing your goods in a warehouse (or, alternatively, in a safe-deposit box) is not, in other words, a “debt contract”; it is known in the law as a “bailment” contract, in which the bailor (the depositor) leaves property in the care, or in the trust of, the bailee (the warehouse). Furthermore, if a warehouse builds a reputation for probity, its receipts will circulate as equivalent to the actual goods in the warehouse. A warehouse receipt is of course payable to whomever holds the receipt; and so the warehouse receipt will be exchanged as if it were the good itself. If I buy your chair, I may not want to take immediate delivery of the chair itself. If I am familiar with the Jones Warehouse, I will accept the receipt for the chair at the Jones Warehouse as equivalent to receiving the actual chair. Just as a deed to a piece of land conveys title to the land itself, so does a warehouse receipt for a good serve as title to, or surrogate for, the good itself.<sup>1</sup>

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 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

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<sup>1</sup> Thus, 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, p. 163.

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 warehouse owner. 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.”<sup>2</sup>

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

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<sup>2</sup> W. Stanley Jevons, *Money and the Mechanism of Exchange*, 15th ed. (London: Kegan Paul, [1875] 1905), pp. 206-12.



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 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: 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.

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.<sup>3</sup>

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 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,

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<sup>3</sup> This 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.

abstracting from my capital and other assets of the bank, its balance sheet will look as in Figure 4:

<b>Figure 4</b>	
<b>One-Hundred Percent Reserve Banking</b>	
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**

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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.<sup>4</sup>

### **Types of Warehouse Receipts**

Two kinds of warehouse receipts for deposit banks have developed over the centuries. One is the regular form of receipt, familiar to anyone who has ever used any sort of warehouse: a paper ticket in which the warehouse guarantees to hand over, on demand, the particular product mentioned on the receipt, e.g., “The Rothbard Bank will pay to the bearer of this ticket on demand,” 10 dollars in gold coin, or Treasury paper money, or whatever. For deposit banks, this is called a “note” or “bank note.” Historically, the bank note is the overwhelmingly dominant form of warehouse receipt.

Another form of deposit receipt, however, emerged in the banks of Renaissance Italy. When a merchant was large-scale and very well-known, he and the bank found it more convenient for the warehouse receipt to be invisible, that is, to remain as an “open book account” on the books of the bank. Then, if he paid large sums to another merchant, he did not have to bother transferring actual bank notes; he would just write out a transfer order to his bank to shift some of his open book account to that of the other merchant. Thus, Signor Medici might write out a transfer order to the Ricci Bank to transfer 100,000 lira of his open book account

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<sup>4</sup> An 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.

at the Bank to Signor Bardi. This transfer order has come to be known as a “check,” and the open book deposit account at the bank as a “demand deposit,” or “checking account.” Note the form of the contemporary transfer order known as a check: “I, Murray N. Rothbard, direct the Bank of America to pay to the account of Service Merchandise 100 dollars.”

It should be noted that the bank note and the open book demand deposit are economically and legally equivalent. Each is an alternative form of warehouse receipt, and each takes its place in the total money supply as a surrogate, or substitute, for cash. However, the check itself is not the equivalent of the bank note, even though both are paper tickets. The bank note itself is the warehouse receipt, and therefore the surrogate, or substitute for cash and a constituent of the supply of money in the society. The check is not the warehouse receipt itself, but an order to transfer the receipt, which is an intangible open book account on the books of the bank.

If the receipt-holder chooses to keep his receipts in the form of a note or a demand deposit, or shifts from one to another, it should make no difference to the bank or to the total supply of money, whether the bank is practicing 100-percent or fractional-reserve banking.

But even though the bank note and the demand deposit are economically equivalent, the two forms will not be equally marketable or acceptable on the market. The reason is that while a merchant or another bank must always trust the bank in question in order to accept its note, for a check to be accepted the receiver must trust not only the bank but also the person who signs the check. In general, it is far easier for a bank to develop a reputation and trust in the market economy, than for an individual depositor to develop an equivalent brand name. Hence, wherever banking has been free and relatively unregulated by government, checking accounts have been largely confined to wealthy merchants and

businessmen who have themselves developed a widespread reputation. In the days of uncontrolled banking, checking deposits were held by the Medicis or the Rockefellers or their equivalent, not by the average person in the economy. If banking were to return to relative freedom, it is doubtful if checking accounts would continue to dominate the economy.

For wealthy businessmen, however, checking accounts may yield many advantages. Checks will not have to be accumulated in fixed denominations, but can be made out for a precise and a large single amount; and unlike a loss of bank notes in an accident or theft, a loss of check forms will not entail an actual decline in one's assets.

### **Enter the Central Bank**

Central Banking began in England, when the Bank of England was chartered in 1694. Other large nations copied this institution over the next two centuries, the role of the Central Bank reaching its now familiar form with the English Peel Act of 1844. The United States was the last major nation to enjoy the dubious blessings of Central Banking, adopting the Federal Reserve System in 1913.

The Central Bank was privately owned, at least until it was generally nationalized after the mid-twentieth century. But it has always been in close cahoots with the central government. The Central Bank has always had two major roles: (1) to help finance the government's deficit; and (2) to cartelize the private commercial banks in the country, so as to help remove the two great market limits on their expansion of credit, on their propensity to counterfeit: a possible loss of confidence leading to bank runs; and the loss of reserves should any one bank expand its own credit. For cartels on the market, even if they are to each firm's advantage, are very difficult to sustain unless government enforces the cartel. In the area of fractional-reserve banking, the

Central Bank can assist cartelization by removing or alleviating these two basic free-market limits on banks' inflationary expansion credit.

It is significant that the Bank of England was launched to help the English government finance a large deficit. Governments everywhere and at all times are short of money, and much more desperately so than individuals or business firms. The reason is simple: unlike private persons or firms, who obtain money by selling needed goods and services to others, governments produce nothing of value and therefore have nothing to sell.<sup>5</sup> Governments can only obtain money by grabbing it from others, and therefore they are always on the lookout to find new and ingenious ways of doing the grabbing. Taxation is the standard method; but, at least until the twentieth century, the people were very edgy about taxes, and any increase in a tax or imposition of a new tax was likely to land the government in revolutionary hot water.

After the discovery of printing, it was only a matter of time until governments began to "counterfeit" or to issue paper money as a substitute for gold or silver. Originally the paper was redeemable or supposedly redeemable in those metals, but eventually it was cut off from gold so that the currency unit, the dollar, pound, mark, etc. became names for independent tickets or notes issued by government rather than units of weight of gold or silver. In the Western world, the first government paper money was issued by the British colony of Massachusetts in 1690.<sup>6</sup>

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<sup>5</sup> A minor exception: when admirably small governments such as Monaco or Liechtenstein issue beautiful stamps to be purchased by collectors. Sometimes, of course, governments will seize and monopolize a service or resource and sell their products (e.g., a forest) or sell the monopoly rights to its production, but these are scarcely exceptions to the eternal coercive search for revenue by government.

<sup>6</sup> Printing was first developed in ancient China, and so it should come as no surprise that the first government paper money arrived in mid-eighth century

The 1690s were a particularly difficult time for the English government. The country had just gone through four decades of revolution and civil war, in large part in opposition to high taxes, and the new government scarcely felt secure enough to impose a further bout of higher taxation. And yet, the government had many lands it wished to conquer, especially the mighty French Empire, a feat that would entail a vast increase in expenditures. The path of deficit spending seemed blocked for the English since the government had only recently destroyed its own credit by defaulting on over half of its debt, thereby bankrupting a large number of capitalists in the realm, who had entrusted their savings to the government. Who then would lend anymore money to the English State?

At this difficult juncture, Parliament was approached by a syndicate headed by William Paterson, a Scottish promoter. The syndicate would establish a Bank of England, which would print enough bank notes, supposedly payable in gold or silver, to finance the government deficit. No need to rely on voluntary savings when the money tap could be turned on! In return, the government would keep all of its deposits at the new bank. Opening in July 1694, the Bank of England quickly issued the enormous sum of £760,000, most of which was used to purchase government debt. In less than two years time, the bank's outstanding notes of £765,000 were only backed by £36,000 in cash. A run demanding specie smashed the bank, which was now out of business. But the English government, in the first of many such bailouts, rushed in to allow the Bank of England to "suspend specie payments," that is, to cease its obligations to pay in specie, while yet being able to force *its* debtors to pay the bank in full. Specie payments resumed two years later, but from then on, the government allowed the Bank of England to suspend specie

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China. See Gordon Tullock, "Taper Money—A Cycle in Cathay," *Economic History Review* 9, no. 3 (1957): 396.

payment, while continuing in operation, every time it got into financial difficulties.

The year following the first suspension, in 1697, the Bank of England induced Parliament to prohibit any new corporate bank from being established in England. In other words, no other incorporated bank could enter into competition with the Bank. In addition, counterfeiting Bank of England notes was now made punishable by death. A decade later, the government moved to grant the Bank of England a virtual monopoly on the issue of bank notes. In particular, after 1708, it was unlawful for any corporation other than the Bank of England to issue paper money, and any note issue by bank partnerships of more than six persons was also prohibited.

The modern form of Central Banking was established by the Peel Act of 1844. The Bank of England was granted an absolute monopoly on the issue of all bank notes in England. These notes, in turn, were redeemable in gold. Private commercial banks were only allowed to issue demand deposits. This meant that, in order to acquire cash demanded by the public, the banks had to keep checking accounts at the Bank of England. In effect, bank demand deposits were redeemable in Bank of England notes, which in turn were redeemable in gold. There was a double-inverted pyramid in the banking system. At the bottom pyramid, the Bank of England, engaging in fractional-reserve banking, multiplied fake warehouse receipts to gold—its notes and deposits—on top of its gold reserves. In their turn, in a second inverted pyramid on top of the Bank of England, the private commercial banks pyramided their demand deposits on top of *their* reserves, or their deposit accounts, at the Bank of England. It is clear that, once Britain went off the gold standard, first during World War I and finally in 1931, the Bank of England notes could serve as the standard fiat money, and the private banks could still pyramid demand deposits on top of their Bank of England reserves. The big difference is

that now the gold standard no longer served as any kind of check upon the Central Bank's expansion of its credit, i.e., its counterfeiting of notes and deposits.

Note, too, that with the prohibition of private bank issue of *notes*, in contrast to demand deposits, for the first time the *form* of warehouse receipt, whether notes or deposits, made a big difference. If bank customers wish to hold cash, or paper notes, instead of intangible deposits, their banks have to go to the Central Bank and draw down their reserves. As we shall see later in analyzing the Federal Reserve, the result is that a change from demand deposit to note has a contractionary effect on the money supply, whereas a change from note to intangible deposit will have an inflationary effect.

### **Easing the Limits on Bank Credit Expansion**

The institution of Central Banking eased the free-market restrictions on fractional-reserve banking in several ways. In the first place, by the mid-nineteenth century a "tradition" was craftily created that the Central Bank must always act as a "lender of last resort" to bail out the banks should the bulk of them get into trouble. The Central Bank had the might, the law, and the prestige of the State behind it; it was the depository of the State's accounts; and it had the implicit promise that the State regards the Central Bank as "too big to fail." Even under the gold standard, the Central Bank note tended to be used, at least implicitly, as legal tender, and actual redemption in gold, at least by domestic citizens, was increasingly discouraged though not actually prohibited. Backed by the Central Bank and beyond it by the State itself, then, public confidence in the banking system was artificially bolstered, and runs on the banking system became far less likely.

Even under the gold standard, then, domestic demands for gold became increasingly rare, and there was generally little for the



banks to worry about. The major problem for the bankers was *international* demands for gold, for while the citizens of, say, France, could be conned into not demanding gold for notes or deposits, it was difficult to dissuade British or German citizens holding bank deposits in francs from cashing them in for gold.

The Peel Act system insured that the Central Bank could act as a cartelizing device, and in particular to make sure that the severe free-market limits on the expansion of *any one bank* could be circumvented. In a free market, as we remember, if a Rothbard Bank expanded notes or deposits by itself, these warehouse receipts would quickly fall into the hands of clients of *other banks*, and these people or their banks would demand redemption of Rothbard warehouse receipts in gold. And since the whole point of fractional-reserve banking is *not* to have sufficient money to redeem the receipts, the Rothbard Bank would quickly go under. But if a Central Bank enjoys the monopoly of bank notes, and the commercial banks all pyramid expansion of their demand deposits on top of their “reserves,” or checking accounts at the Central Bank, then all the Bank need do to assure successful cartelization is to expand proportionately throughout the country, so that all competing banks increase their reserves, and can expand together at the same rate. Then, if the Rothbard Bank, for example, prints warehouse receipts far beyond, say triple, its reserves in deposits at the Central Bank, it will not, on net, lose reserves if all the competing banks are expanding *their* credit at the same rate. In this way, the Central Bank acts as an effective cartelizing agent.

But while the Central Bank can mobilize all the banks within a country and make sure they all expand the money-substitutes they create at the same rate, they once again have a problem with the banks of *other* countries. While the Central Bank of Ruritania can see to it that all the Ruritanian banks are mobilized and expand their credit and the money-supply together, it has no power over

the banks or the currencies of other countries. Its cartelizing potential extends only to the borders of its own country.

### **The Central Bank Buys Assets**

Before analyzing operations of the Federal Reserve in more detail, we should understand that the most important way that a Central Bank can cartelize its banking system is by increasing the reserves of the banks, and the most important way to do that is simply by buying assets.

In a gold standard, the “reserve” of a commercial bank, the asset that allegedly stands behind its notes or deposits, is gold. When the Central Bank enters the scene, and particularly after the Peel Act of 1844, the reserves consist of gold, but predominantly they consist of the bank’s demand deposit account at the Central Bank, an account which enables the bank to redeem its own checking account in the notes of the Central Bank, which enjoys a State-granted monopoly on the issue of tangible notes. As a result, in practice the banks hold Central Bank deposits as their reserve and they redeem in Central Bank notes, whereas the Central Bank is pledged to redeem those notes in gold.

This post-Peel Act structure, it is clear, not undesignedly paved the way for a smooth transition to a fiat paper standard. Since the average citizen had come to use Central Bank notes as his cash, and gold was demanded only by foreigners, it was relatively easy and not troublesome for the government to go off gold and to refuse to redeem its or its Central Bank notes in specie. The average citizen continued to use Bank notes and the commercial banks continued to redeem their deposits in those notes. The daily economic life of the country seemed to go on much as before. It should be clear that, if there had been no Central Bank, and especially no Central Bank with a Peel Act type monopoly of notes, going off gold would have created a considerable amount of trouble and a public outcry.

How, then, can the Central Bank increase the reserves of the banks under its jurisdiction? Simply by buying assets. It doesn't matter *whom* it buys assets from, whether from the banks or from any other individual or firm in the economy. Suppose a Central Bank buys an asset from a bank. For example, the Central Bank buys a building, owned by the Jonesville Bank for \$1,000,000. The building, appraised at \$1,000,000, is transferred from the asset column of the Jonesville Bank to the asset column of the Central Bank. How does the Central Bank pay for the building? Simple: by writing out a check on itself for \$1,000,000. Where did it get the money to write out the check? It created the money out of thin air, i.e., by creating a fake warehouse receipt for \$1,000,000 in cash which it does not possess. The Jonesville Bank deposits the check at the Central Bank, and the Jonesville Bank's deposit account at the Central Bank goes up by \$1,000,000. The Jonesville Bank's total reserves have increased by \$1,000,000, upon which it and other banks will be able, in a short period of time, to multiply their own warehouse receipts to non-existent reserves manyfold, and thereby to increase the money supply of the country manyfold.

Figure 7 demonstrates this initial process of purchasing assets. We now have to deal with two sets of T-accounts: the commercial bank and the Central Bank. The process is shown as in figure 7.

**Figure 7**  
**Central Bank Buys an Asset from a Commercial Bank**

Commercial Bank	
Assets	Equity + Liabilities
House: \$1,000,000 Deposit at Central Bank: + \$1,000,000	

  

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

Now, let us analyze the similar, though less obvious, process that occurs when the Central Bank buys an asset from anyone, any individual or firm, in the economy. Suppose that the Central Bank buys a house worth \$1,000,000 from Jack Levitt, homebuilder. The Central Bank's asset column increases by \$1,000,000 for the house; again, it pays for the house by writing a \$1,000,000 check on itself, a warehouse receipt for non-existent cash it creates out of thin air. It writes out the check to Mr. Levitt. Levitt, who cannot have an account at the Central Bank (only banks can do so), can do only one thing with the check: deposit it at whatever bank he uses. This increases his checking account by \$1,000,000. Now, here there is a variant on the events of the previous example. Already, in the one act of depositing this check, the total money supply in the country has increased by

\$1,000,000, a \$1,000,000 which did not exist before. So an inflationary increase in the money supply has already occurred. And redistribution has already occurred as well, since all of the new money, at least initially, resides in the possession of Mr. Levitt. But this is only the initial increase, for the bank used by Levitt, say the Rockville Bank, takes the check and deposits it at the Central Bank, thereby gaining \$1,000,000 in its deposits, which serve as its reserves for its own fractional-reserve banking operations. The Rockville Bank, accompanied by other, competing banks, will then be able to pyramid an expansion of multiple amounts of warehouse receipts and credits, which will comprise the new warehouse receipts being loaned out. There will be a multiple expansion of the money supply. This process can be seen in Figures 8 and 9 below.

**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

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

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**Figure 9**  
**Result of Credit Expansion Process**

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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

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securities on the 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.

## Reading 7

### Entrepreneurship

#### Context and Summary

Mises said that entrepreneurship is “the driving force of the market.” Entrepreneurs seek profit by combining factors of production to make goods for consumers, who, by their buying decisions, deliver a verdict on the entrepreneurs’ efforts. This verdict comes in the form of profit or loss. Profits mean that the entrepreneur successfully transformed lower-valued factors into higher-valued goods. Losses mean that resources were wasted. In this way, profits and losses are both information and incentive. They inform the market about consumer values and the potential value of the factors of production, and they incentivize economizing production, meaning that entrepreneurs are rewarded for giving consumers what they want in the most efficient way possible.

The information provided by the ability to calculate profit is essential, and this is the crux of Mises’s famous critique of socialism, covered in a later chapter. Without private ownership of the means of production, there can be no exchange. Without exchange there can be no prices. Without prices, profit and loss cannot be calculated. Without the ability to measure profit and loss, production decisions are made in the dark and the entire economy collapses.

In this selection from *Human Action*, Mises discusses the nature of entrepreneurship, the function of profits and losses, and the purpose of the imaginary construct of the evenly rotating economy (ERE). Unlike the equilibrium constructs in mainstream



economics, the ERE is not an ideal state. Far from it, the ERE is an unachievable state of affairs in which there is no more uncertainty about the future. Mises employs this construct to isolate the function of the entrepreneur, which is to anticipate the future. In the ERE, all monetary profits and losses disappear because there is no longer any way for one entrepreneur to have a better guess than another about future consumer demands. Thus, the role of the entrepreneur is to bear the uncertainty of the market.

It is worth pointing out that the entrepreneur is completely absent in mainstream economics. Only the Austrian school sees the importance of the entrepreneur in the market process. In the mainstream, markets are modeled with mathematical functions for consumer demand and production. There is no room for an entrepreneur to make judgments about current market prices and their relation to what the entrepreneur thinks the future may hold.

The following reading is a selection from *Human Action*, Chapter XV, “The Market,” by Ludwig von Mises.

## Selection from *Human Action*

### Ludwig von Mises

#### Entrepreneurial Profit and Loss

Profit, in a broader sense, is the gain derived from action; it is the increase in satisfaction (decrease in uneasiness) brought about; it is the difference between the higher value attached to the result attained and the lower value attached to the sacrifices made for its attainment; it, in other words, yield minus costs. To make profit is invariably the aim sought by any action. If an action fails to attain the ends sought, yield either does not exceed costs or lags behind costs. In the latter case the outcome means a loss, a decrease in satisfaction.

Profit and loss in this original sense are psychic phenomena and as such not open to measurement and a mode of expression which could convey to other people precise information concerning their intensity. A man can tell a fellow man that *a* suits him better than *b*; but he cannot communicate to another man, except in vague and indistinct terms, how much the satisfaction derived from *a* exceeds that derived from *b*.

In the market economy all those things that are bought and sold against money are marked with money prices. In the monetary calculus profit appears as a surplus of money received over money expended and loss as a surplus of money expended over money received. Profit and loss can be expressed in definite amounts of money. It is possible to ascertain in terms of money how much an individual has profited or lost. However, this is not a statement about a social phenomenon, about the individual's contribution to the societal effort as it is appraised by the other members of society. It does not tell us anything about the individual's increase

or decrease in satisfaction or happiness. It merely reflects his fellow men's evaluation of his contribution to social cooperation. This evaluation is ultimately determined by the efforts of every member of society to attain the highest possible psychic profit. It is the resultant of the composite effect of all these people's subjective and personal value judgments as manifested in their conduct on the market. But it must not be confused with these value judgments as such.

We cannot even think of a state of affairs in which people act without the intention of attaining psychic profit and in which their actions result neither in psychic profit nor in psychic loss.<sup>1</sup> In the imaginary construction of an evenly rotating economy there are neither money profits nor money losses. But every individual derives a psychic profit from his actions, or else he would not act at all. The farmer feeds and milks his cows and sells the milk because he values the things he can buy against the money thus earned more highly than the costs expended. The absence of money profits or losses in such an evenly rotating system is due to the fact that, if we disregard the differences brought about by the higher valuation of present goods as compared with future goods, the sum of the prices of all complementary factors needed for production precisely equals the price of the product.

In the changing world of reality differences between the sum of the prices of the complementary factors of production and the prices of the products emerge again and again. It is these differences that bring about money profits and money losses. As far as such changes affect the sellers of labor and those of the original nature-given factors of production and of the capitalists as moneylenders, we will deal with them later. At this point we are

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<sup>1</sup> If an action neither improves nor impairs the state of satisfaction, it still involves a psychic loss because of the uselessness of the expended psychic effort. The individual concerned would have been better off if he had inertly enjoyed life.

dealing with the promoters' entrepreneurial profit and loss. It is this problem that people have in mind when employing the terms profit and loss in mundane speech.

Like every acting man, the entrepreneur is always a speculator. He deals with the uncertain conditions of the future. His success or failure depends on the correctness of his anticipation of uncertain events. If he fails in his understanding of things to come, he is doomed. The only source from which an entrepreneur's profits stem is his ability to anticipate better than other people the future demand of the consumers. If everybody is correct in anticipating the future state of the market of a certain commodity, its price and the prices of the complementary factors of production concerned would already today be adjusted to this future state. Neither profit nor loss can emerge for those embarking upon this line of business.

The specific entrepreneurial function consists in determining the employment of the factors of production. The entrepreneur is the man who dedicates them to special purposes. In doing so he is driven solely by the selfish interest in making profits and in acquiring wealth. But he cannot evade the law of the market. He can succeed only by best serving the consumers. His profit depends on the approval of his conduct by the consumers.

One must not confuse entrepreneurial profit and loss with other factors affecting the entrepreneur's proceeds.

The entrepreneur's technological ability does not affect the specific entrepreneurial profit or loss. As far as his own technological activities contribute to the returns earned and increase his net income, we are confronted with a compensation for work rendered. It is wages paid to the entrepreneur for his labor. Neither does the fact that not every process of production succeeds technologically in bringing about the product expected, influence the specific entrepreneurial profit or loss. Such failures

are either avoidable or unavoidable. In the first case they are due to the technologically inefficient conduct of affairs. then the losses resulting are to be debited to the entrepreneur's personal insufficiency, i.e., either to his lack of technological ability or to his lack of the ability to hire adequate helpers. In the second case the failures are due to the fact that the present state of technological knowledge prevents us from fully controlling the conditions on which success depends. This deficiency may be caused either by incomplete knowledge concerning the conditions of success or by ignorance of methods for controlling fully some of the known conditions. The price of the factors of production takes into account this unsatisfactory state of our knowledge and technological power. The price of arable land, for instance, takes into full account the fact that there are bad harvests, as it is determined by the anticipated average yield. The fact that the bursting of bottles reduces the output of champagne does not affect entrepreneurial profit and loss. It is merely one of the factors determining the cost of production and the price of champagne.<sup>2</sup>

Accidents affecting the process of production, the means of production, or the products while they are still in the hands of the entrepreneur are an item in the bill of production costs. Experience, which conveys to the businessman all other technological knowledge, provides him also with information about the average reduction in the quantity of physical output which such accidents are likely to bring about. By opening contingency reserves, he converts their effects into regular costs of production. With regard to contingencies the expected incidence of which is too rare and too irregular to be dealt with in this way

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<sup>2</sup> Cf. Mangoldt, *Die Lehre vom Unternehmergewinn* (Leipzig, 1855), p. 82. The fact that out of 100 liters of plain wine one cannot produce 100 liters of champagne, but a smaller quantity, has the same significance as the fact that 100 kilograms of sugar beet do not yield 100 kilograms of sugar but a smaller quantity.

by individual firms of normal size, concerted action on the part of sufficiently large groups of firms take care of the matter. The individual firms cooperate under the principle of insurance against damage caused by fire, flood, or other similar contingencies. Then an insurance premium is substituted for an appropriation to a contingency reserve. At any rate, the risks incurred by accidents do not introduce uncertainty into the conduct of the technological processes.<sup>3</sup> If an entrepreneur neglects to deal with them duly, he gives proof of his technical insufficiency. The losses thus incurred are to be debited to bad techniques applied, not to his entrepreneurial function.

The elimination of those entrepreneurs who fail to give to their enterprises the adequate degree of technological efficiency or whose technological ignorance vitiates their cost calculation is effected on the market in the same way in which those deficient in the performance of the specific entrepreneurial functions are eliminated. It may happen that an entrepreneur is so successful in his specific entrepreneurial function that he can compensate losses caused by his technological failure. It may also happen that an entrepreneur can counterbalance losses due to failure in his entrepreneurial function by the advantages derived from his technological superiority or from the differential rent yielded by the higher productivity of the factors of production he employs. But one must not confuse the various functions which are combined in the conduct of a business unit. The technologically more efficient entrepreneur earns higher wage rates or quasi-wage rates than the less efficient in the same way in which the more efficient worker earns more than the less efficient. The more efficient machine and the more fertile soil produce higher physical returns per unit of costs expended; they yield a differential rent when compared with the less efficient machine and the less fertile soil. The higher wage rates and the higher rent are, *ceteris paribus*,

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<sup>3</sup> Cf. Knight, *Risk, Uncertainty and Profit* (Boston, 1921), pp. 211-213.

the corollary of higher physical output. But the specific entrepreneurial profits and losses are not produced by the quantity of physical output. They depend on the adjustment of output to the most urgent wants of the consumers. What produces them is the extent to which the entrepreneur has succeeded or failed in anticipating the future—necessarily uncertain—state of the market.

The entrepreneur is also jeopardized by political dangers. Government policies, revolutions, and wars can damage or annihilate his enterprise. Such events do not affect him alone; they affect the market economy as such and all individuals, although not all of them to the same extent. For the individual entrepreneur they are data which he cannot alter. If he is efficient, he will anticipate them in time. But it is not always possible for him to adjust his operations in such a way as to avoid damage. If the dangers expected concern only a part of the territory which is accessible to his entrepreneurial activities, he can avoid operating in the menaced areas and can prefer countries in which the danger is less imminent. But if he cannot emigrate, he must stay where he is. If all entrepreneurs were fully convinced that the total victory of Bolshevism was impending, they would nevertheless not abandon their entrepreneurial activities. The expectation of imminent expropriation will impel the capitalists to consume their funds. The entrepreneurs will be forced to adjust their plans to the market situation created by such capital consumption and the threatened nationalization of their shops and plants. But they will not stop operating. If some entrepreneurs go out of business, others will take their place—newcomers or old entrepreneurs expanding the size of their enterprises. In the market economy there will always be entrepreneurs. Policies hostile to capitalism may deprive the consumers of the greater part of the benefits they would have reaped from unhampered entrepreneurial activities. But they cannot eliminate the entrepreneurs as such if they do not entirely destroy the market economy.

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

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

If we want to construct the image of changing economic conditions in which there are neither profits nor losses, we must resort to an unrealizable assumption: perfect foresight of all future events on the part of all individuals. If those primitive hunters and fishermen to whom it is customary to ascribe the first accumulation of produced factors of production had known in advance all the future vicissitudes of human affairs, and if they and all their descendants until the last day of judgment, equipped with the same omniscience, had appraised all factors of production accordingly, entrepreneurial profits and losses would never have emerged. Entrepreneurial profits and losses are created through the discrepancy between the expected prices and the prices later really fixed on the markets. It is possible to confiscate profits and to transfer them from the individuals to whom they have accrued to other people. But neither profits nor losses can ever disappear from a changing world not populated solely with omniscient people.



## Reading 8

### Austrian Capital Theory

#### Context and Summary

Austrian capital theory starts with the simple observation that production takes time. Making goods for consumption requires the use of other goods, like land, natural resources, human effort, tools, and intermediate products. In the following reading from Menger's *Principles of Economics*, we will see the economic relationship between these goods and a straightforward way to think about production.

As you read, remember our chapter on the division of labor: "I, Pencil" by Leonard Read. We saw how the final consumer good, a pencil, required a complex, years-long process of mining, sawing, harvesting, refining, baking, painting, stamping, assembling, transporting, and a million other things. Menger explains that the value of all of these efforts and all of the resources that go into them is derived from the value of the final consumer good. We never produce for the sake of producing – all production is aimed at creating a valuable consumer good.

Menger uses an example to highlight the fact that the value of consumer goods is imputed to the factors, and that factors have no value independent of their aid in producing consumer goods. He uses a hypothetical scenario in which tastes change and nobody wants to use tobacco of any kind. What would be the result? Menger shows that the value of all the specific factors of production (i.e., specific to tobacco production) would immediately be worthless. Only the labor, land, and tools that

have alternative uses would retain their value, due to the fact that they can help produce something else that is valuable.

What holds all of this analysis together is cause and effect. Indeed, Menger began his treatise with this in mind: “All things are subject to the law of cause and effect.” Human action is the purposeful use of causes to bring about desired effects. This fact is crucial for making sense of both consumption and production.

The following reading is selected from *Principles of Economics*, chapter I, “The General Theory of the Good,” by Carl Menger.

## Selection from *Principles of Economics*

Carl Menger

### The Causal Connections Between Goods

Before proceeding to other topics, it appears to me to be of preëminent importance to our science that we should become clear about the causal connections between goods. In our own, as in all other sciences, true and lasting progress will be made only when we no longer regard the objects of our scientific observations merely as unrelated occurrences, but attempt to discover their *causal connections* and the laws to which they are subject. The bread we eat, the flour from which we bake the bread, the grain that we mill into flour, and the field on which the grain is grown—all these things are goods. But knowledge of this fact is not sufficient for our purposes. On the contrary, it is necessary in the manner of all other empirical sciences, to attempt to classify the various goods according to their inherent characteristics, to learn the place that each good occupies in the causal nexus of goods, and finally, to discover the economic laws to which they are subject.

Our well-being at any given time, to the extent that it depends upon the satisfaction of our needs, is assured if we have at our disposal the goods required for their direct satisfaction. If, for example, we have the necessary amount of bread, we are in a position to satisfy our need for food directly. The causal connection between bread and the satisfaction of one of our needs is thus a direct one, and a testing of the goods-character of bread according to the principles laid down in the preceding section presents no difficulty. The same applies to all other goods that may be used directly for the satisfaction of our needs, such as beverages, clothes, jewelry, etc.

But we have not yet exhausted the list of things whose goods-character we recognize. For in addition to goods that serve our needs directly (and which will, for the sake of brevity, henceforth be called “goods of first order”) we find a large number of other things in our economy that cannot be put in any direct causal connection with the satisfaction of our needs, but which possess goods-character no less certainly than goods of first order. In our markets, next to bread and other goods capable of satisfying human needs directly, we also see quantities of flour, fuel, and salt. We find that implements and tools for the production of bread, and the skilled labor services necessary for their use, are regularly traded. All these things, or at any rate by far the greater number of them, are incapable of satisfying human needs in any direct way—for what human need could be satisfied by a specific labor service of a journeyman baker, by a baking utensil, or even by a quantity of ordinary flour? That these things are nevertheless treated as goods in human economy, just like goods of first order, is due to the fact that they serve to produce bread and other goods of first order, and hence are indirectly, even if not directly, capable of satisfying human needs. The same is true of thousands of other things that do not have the capacity to satisfy human needs directly, but which are nevertheless used for the production of goods of first order, and can thus be put in an indirect causal connection with the satisfaction of human needs. These considerations prove that the relationship responsible for the goods-character of these things, which we will call goods of *second* order, is fundamentally the same as that of goods of first order. The fact that goods of first order have a direct and goods of second order an indirect causal relation with the satisfaction of our needs gives rise to no difference in the essence of that relationship, since the requirement for the acquisition of goods-character is the existence of some causal connection, but not necessarily one that is direct, between things and the satisfaction of human needs.

At this point, it could easily be shown that even with these goods we have not exhausted the list of things whose goods-character we recognize, and that, to continue our earlier example, the grain mills, wheat, rye, and labor services applied to the production of flour, etc., appear as goods of *third* order, while the fields, the instruments and appliances necessary for their cultivation, and the specific labor services of farmers, appear as goods of *fourth* order. I think, however, that the idea I have been presenting is already sufficiently clear.

In the previous section, we saw that a causal relationship between a thing and the satisfaction of human needs is one of the prerequisites of its goods-character. The thought developed in this section may be summarized in the proposition that it is not a requirement of the goods-character of a thing that it be capable of being placed in *direct* causal connection with the satisfaction of human needs. It has been shown that goods having an indirect causal relationship with the satisfaction of human needs differ in the closeness of this relationship. But it has also been shown that this difference does not affect the essence of goods-character in any way. In this connection, a distinction was made between goods of first, second, third, fourth, and higher orders.

Again it is necessary that we guard ourselves, from the beginning, from a faulty interpretation of what has been said. In the general discussion of goods-character, I have already pointed out that goods-character is not a property inherent in the goods themselves. The same warning must also be given here, where we are dealing with the order or place that a good occupies in the causal nexus of goods. To designate the order of a particular good is to indicate only that this good, in some particular employment, has a closer or more distant causal relationship with the satisfaction of a human need. Hence the order of a good is nothing inherent in the good itself and still less a property of it.

Thus I do not attach any special weight to the orders assigned to goods, either here or in the following exposition of the laws governing goods, although the assignment of these orders will, if they are correctly understood, become an important aid in the exposition of a difficult and important subject. But I do wish especially to stress the importance of understanding the causal relation between goods and the satisfaction of human needs and, depending upon the nature of this relation in particular cases, the more or less direct causal connection of the goods with these needs.

### **The Laws Governing Goods-Character**

#### ***A. The goods-character of goods of higher order is dependent on command of corresponding complementary goods.***

When we have goods of first order at our disposal, it is in our power to use them directly for the satisfaction of our needs. If we have the corresponding goods of second order at our disposal, it is in our power to transform them into goods of first order, and thus to make use of them in an indirect manner for the satisfaction of our needs. Similarly, should we have only goods of third order at our disposal, we would have the power to transform them into the corresponding goods of second order, and these in turn into corresponding goods of first order. Hence we would have the power to utilize goods of third order for the satisfaction of our needs, even though this power must be exercised by transforming them into goods of successively lower orders. The same proposition holds true with all goods of higher order, and we cannot doubt that they possess goods-character if it is in our power actually to utilize them for the satisfaction of our needs.

This last requirement, however, contains a limitation of no slight importance with respect to goods of higher order. For it is never in our power to make use of any particular good of higher order

for the satisfaction of our needs unless we also have command of the other (complementary) goods of higher order.

Let us assume, for instance, that an economizing individual possesses no bread directly, but has at his command all the goods of second order necessary to produce it. There can be no doubt that he will nevertheless have the power to satisfy his need for bread. Suppose, however, that the same person has command of the flour, salt, yeast, labor services, and even all the tools and appliances necessary for the production of bread, but lacks both fuel and water. In this second case, it is clear that he no longer has the power to utilize the goods of second order in his possession for the satisfaction of his need, since bread cannot be made without fuel and water, even if all the other necessary goods are at hand. Hence the goods of second order will, in this case, immediately lose their goods-character with respect to the need for bread, since one of the four prerequisites for the existence of their goods-character (in this case the fourth prerequisite) is lacking.

It is possible for the things whose goods-character has been lost with respect to the need for bread to retain their goods-character with respect to other needs if their owner has the power to utilize them for the satisfaction of other needs than his need for bread, or if they are capable, by themselves, of directly or indirectly satisfying a human need in spite of the lack of one or more complementary goods. But if the lack of one or more complementary goods makes it impossible for the available goods of second order to be utilized, either by themselves alone or in combination with other available goods, for the satisfaction of any human need whatsoever, they will lose their goods-character completely. For economizing men will no longer have the power to direct the goods in question to the satisfaction of their needs, and one of the essential prerequisites of their goods-character is therefore missing.

Our investigation thus far yields, as a first result, the proposition that the goods-character of goods of *second* order is dependent upon complementary goods of the same order being available to men with respect to the production of at least one good of first order.

The question of the dependence of the goods-character of goods of higher order than the second upon the availability of complementary goods is more complex. But the additional complexity by no means lies in the relationship of the goods of higher order to the corresponding goods of the next lower order (the relationship of goods of third order to the corresponding goods of second order, or of goods of fifth order to those of fourth order, for example). For the briefest consideration of the causal relationship between these goods provides a complete analogy to the relationship just demonstrated between goods of second order and goods of the next lower (first) order. The principle of the previous paragraph may be extended quite naturally to the proposition that the goods-character of goods of higher order is directly dependent upon complementary goods of the same order being available with respect to the production of at least one good of the next lower order.

The additional complexity arising with goods of higher than second order lies rather in the fact that even command of all the goods required for the production of a good of the next lower order does not necessarily establish their goods-character unless men also have command of all their complementary goods of this next and of all still lower orders. Assume that someone has command of all the goods of third order that are required to produce a good of second order, but does not have the other complementary goods of second order at his command. In this case, even command of all the goods of third order required for the production of a single good of second order will not give him the power actually to direct these goods of third order to the



satisfaction of human needs. Although he has the power to transform the goods of third order (whose goods-character is here in question) into goods of second order, he does not have the power to transform the goods of second order into the corresponding goods of first order. He will therefore not have the power to direct the goods of third order to the satisfaction of his needs, and because he has lost this power, the goods of third order lose their goods-character immediately.

It is evident, therefore, that the principle stated above—the goods-character of goods of higher order is directly dependent upon complementary goods of the same order being available with respect to the production of at least one good of the next lower order—does not include all the prerequisites for the establishment of the goods-character of things, since command of all complementary goods of the same order does not by itself give us the power to direct these things to the satisfaction of our needs. If we have goods of third order at our disposal, their goods-character is indeed directly dependent on our being able to transform them into goods of second order. But a further requirement for their goods-character is our ability to transform the goods of second order in turn into goods of first order, which involves the still further requirement that we must have command of certain complementary goods of second order.

The relationships of goods of fourth, fifth, and still higher orders are quite analogous. Here again the goods-character of things so remote from the satisfaction of human needs is directly dependent on the availability of complementary goods of the same order. But it is dependent also upon our having command of the complementary goods of the next lower order, in turn of the complementary goods of the order below this, and so on, in such a way that it is in our power actually to direct the goods of higher order to the production of a good of first order, and thereby finally to the satisfaction of a human need. If we designate the

whole sum of goods that are required to utilize a good of higher order for the production of a good of first order as its complementary goods in the wider sense of the term, we obtain the general principle that the *goods-character of goods of higher order depends on our being able to command their complementary goods in this wider sense of the term.*

Nothing can place the great causal interconnection between goods more vividly before our eyes than this principle of the mutual interdependence of goods.

When, in 1862, the American Civil War dried up Europe's most important source of cotton, thousands of other goods that were complementary to cotton lost their goods-character. I refer in particular to the labor services of English and continental cottonmill workers who then, for the greater part, became unemployed and were forced to ask public charity. The labor services (of which these capable workers had command) remained the same, but large quantities of them lost their goods-character since their complementary good, cotton, was unavailable, and the specific labor services could not by themselves, for the most part, be directed to the satisfaction of any human need. But these labor services immediately became goods again when their complementary good again became available as the result of increased cotton imports, partly from other sources of supply, and partly, after the end of the American Civil War, from the old source.

Conversely, goods often lose their goods-character because men do not have command of the necessary labor services, complementary to them. In sparsely populated countries, particularly in countries raising one predominant crop such as wheat, a very serious shortage of labor services frequently occurs after especially good harvests, both because agricultural workers, few in numbers and living separately, find few incentives for hard work in times of abundance, and because the harvesting work, as a result of the

exclusive cultivation of wheat, is concentrated into a very brief period of time. Under such conditions (on the fertile plains of Hungary, for instance), where the requirements for labor services, within a short interval of time, are very great but where the available labor services are not sufficient, large quantities of grain often spoil on the fields. The reason for this is that the goods complementary to the crops standing on the fields (the labor services necessary for harvesting them) are missing, with the result that the crops themselves lose their goods-character.

When the economy of a people is highly developed, the various complementary goods are generally in the hands of different persons. The producers of each individual article usually carry on their business in a mechanical way, while the producers of the complementary goods realize just as little that the goods-character of the things they produce or manufacture depends on the existence of other goods that are not in their possession. The error that goods of higher order possess goods-character by themselves, and without regard to the availability of complementary goods, arises most easily in countries where, owing to active commerce and a highly developed economy, almost every product comes into existence under the tacit, and as a rule quite unconscious, supposition of the producer that other persons, linked to him by trade, will provide the complementary goods at the right time. Only when this tacit assumption is disappointed by such a change of conditions that the laws governing goods make their operation manifestly apparent, are the usual mechanical business transactions interrupted, and only then does public attention turn to these manifestations and to their underlying causes.

***B. The goods-character of goods of higher order is derived from that of the corresponding goods of lower order.***

Examination of the nature and causal connections of goods as I have presented them in the first two sections leads to the

recognition of a further law that goods obey as such—that is, without regard to their economic character.

It has been shown that the existence of human needs is one of the essential prerequisites of goods-character, and that if the human needs with whose satisfaction a thing may be brought into causal connection completely disappear, the goods-character of the thing is immediately lost unless new needs for it arise.

From what has been said about the nature of goods, it is directly evident that goods of first order lose their goods-character immediately if the needs they previously served to satisfy all disappear without new needs arising for them. The problem becomes more complex when we turn to the entire range of goods causally connected with the satisfaction of a human need, and inquire into the effect of the disappearance of this need on the goods-character of the goods of higher order causally connected with its satisfaction.

Suppose that the need for direct human consumption of tobacco should disappear as the result of a change in tastes, and that at the same time all other needs that the tobacco already prepared for human consumption might serve to satisfy should also disappear. In this event, it is certain that all tobacco products already on hand, in the final form suited to human consumption, would immediately lose their goods-character. But what would happen to the corresponding goods of higher order? What would be the situation with respect to raw tobacco leaves, the tools and appliances used for the production of the various kinds of tobacco, the specialized labor services employed in the industry, and in short, with respect to all the goods of second order used for the production of tobacco destined for human consumption? What, furthermore, would be the situation with respect to tobacco seeds, tobacco farms, the labor services and the tools and appliances employed in the production of raw tobacco, and all the other goods that may be regarded as goods of third order in

relation to the need for tobacco? What, finally, would be the situation with respect to the corresponding goods of fourth, fifth, and higher orders?

The goods-character of a thing is, as we have seen, dependent on its being capable of being placed in a causal connection with the satisfaction of human needs. But we have also seen that a *direct* causal connection between a thing and the satisfaction of a need is by no means a necessary prerequisite of its goods-character. On the contrary, a large number of things derive their goods-character from the fact that they stand only in a more or less *indirect* causal relationship to the satisfaction of human needs.

If it is established that the existence of human needs capable of satisfaction is a prerequisite of goods-character in all cases, the principle that the goods-character of things is immediately lost upon the disappearance of the needs they previously served to satisfy is, at the same time, also proven. This principle is valid whether the goods can be placed in *direct* causal connection with the satisfaction of human needs, or derive their goods-character from a more or less *indirect* causal connection with the satisfaction of human needs. It is clear that with the disappearance of the corresponding needs the entire foundation of the relationship we have seen to be responsible for the goods-character of things ceases to exist.

Thus quinine would cease to be a good if the diseases it serves to cure should disappear, since the only need with the satisfaction of which it is causally connected would no longer exist. But the disappearance of the usefulness of quinine would have the further consequence that a large part of the corresponding goods of higher order would also be deprived of their goods-character. The inhabitants of quinine-producing countries, who currently earn their livings by cutting and peeling cinchona trees, would suddenly find that not only their stocks of cinchona bark, but also, in consequence, their cinchona trees, the tools and

appliances applicable only to the production of quinine, and above all the specialized labor services, by means of which they previously earned their livings, would at once lose their goods-character, since all these things would, under the changed circumstances, no longer have any causal relationship with the satisfaction of human needs.

If, as the result of a change in tastes, the need for tobacco should disappear completely, the first consequence would be that all stocks of finished tobacco products on hand would be deprived of their goods-character. A further consequence would be that the raw tobacco leaves, the machines, tools, and implements applicable exclusively to the processing of tobacco, the specialized labor services employed in the production of tobacco products, the available stocks of tobacco seeds, etc., would lose their goods-character. The services, presently so well paid, of the agents who have so much skill in the grading and merchandising of tobaccos in such places as Cuba, Manila, Puerto Rico, and Havana, as well as the specialized labor services of the many people, both in Europe and in those distant countries, who are employed in the manufacture of cigars, would cease to be goods. Even tobacco boxes, humidors, all kinds of tobacco pipes, pipe stems, etc., would lose their goods-character. This apparently very complex phenomenon is explained by the fact that all the goods enumerated above derive their goods-character from their causal connection with the satisfaction of the human need for tobacco. With the disappearance of this need, one of the foundations underlying their goods-character is destroyed.

But goods of first order frequently, and goods of higher order as a rule, derive their goods-character not merely from a single but from more or less numerous causal connections with the satisfaction of human needs. Goods of higher order thus do not lose their goods-character if but one, or if, in general, but a part of these needs ceases to be present. On the contrary, it is evident that

this effect will take place only if *all* the needs with the satisfaction of which goods of higher order are causally related disappear, since otherwise their goods-character would, *in strict accordance with economic law*, continue to exist with respect to needs with the satisfaction of which they have continued to be causally related even under the changed conditions. But even in this case, their goods-character continues to exist only to the extent to which they continue to maintain a causal relationship with the satisfaction of human needs, and would disappear immediately if the remaining needs should also cease to exist.

To continue the previous example, should the need of people for the consumption of tobacco cease completely to exist, the tobacco already manufactured into products suited to human consumption, and probably also the stocks of raw tobacco leaves, tobacco seeds, and many other goods of higher order having a causal connection with the satisfaction of the need for tobacco, would be completely deprived of their goods-character. But not all the goods of higher order used by the tobacco industry would necessarily meet this fate. The land and agricultural implements used in the cultivation of tobacco, for instance, and perhaps also many tools and machines used in the manufacture of tobacco products, would retain their goods-character with respect to other human needs since they can be placed in causal connection with these other needs even after the disappearance of the need for tobacco.

The law that the goods-character of goods of higher order is derived from the goods-character of the corresponding goods of lower order in whose production they serve must not be regarded as a modification affecting the substance of the primary principle, but merely as a restatement of that principle in a more concrete form.

In what has preceded we have considered in general terms all the goods that are causally connected both with one another and with

the satisfaction of human needs. The object of our investigation was the whole causal chain up to the last link, the satisfaction of human needs. Having stated the principle of the present section, we may now, in the section following, turn our attention to a few links of the chain at a time—by disregarding the causal connection between goods of third order for instance, and the satisfaction of human needs for the time being, and by observing only the causal connection of goods of that order with the corresponding goods of any higher order of our choice.



## Reading 9

# The Theory of Interest

### Context and Summary

If the value of capital goods is completely determined by the value of consumer goods, then why is it that a price spread remains even when entrepreneurs have bid the price of a factor up to its marginal revenue product? If a plot of land can yield annual harvests indefinitely, then how could it have a finite price?

The answer is time preference. We prefer having goods in the present over waiting for the same goods. Since all action is aimed at removing “felt uneasiness”, as Mises put it, any delay means continued uneasiness. Therefore, we act to bring about our desired state of affairs as soon as possible, only delaying if we think that the greater payoff will be worth the wait.

Extending our plans further into the future, i.e., lowering our rate of time preference, allows us to pursue longer, more capital-intensive, and more productive processes. This is the ultimate source of economic growth and achieving higher standards of living.

Of course, individuals can have different rates of time preference, meaning we can have a double coincidence of wants and the potential for mutually advantageous trade. Someone with a higher demand for present goods can borrow from someone with a lower demand for present goods via a simple loan transaction.<sup>1</sup>

Entrepreneurs purchase factors of production for the sake of

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<sup>1</sup> Said another way, someone with a lower demand for future goods can borrow from someone with a higher demand for future goods.

future consumption, too, meaning that the price they pay must include an allowance for the disutility of incurring continued “uneasiness” until the revenues from the sale of output are finally received. This spread between present and future amounts of money, in both the loan transaction and in (fully capitalized) production is the interest rate.

Since the interest rate reflects the way we allocate resources for present and future consumption, it is important that we do not meddle with it. One such consequence of artificially lowering interest rates, the boom-bust cycle, will be covered in a later chapter.

The following reading is a selection from *Human Action*, Chapter XIX, “The Rate of Interest,” by Ludwig von Mises.

## Selection from *Human Action*

Ludwig von Mises

### The Phenomenon of Interest

It has been shown that time preference is a category inherent in every human action. Time preference manifests itself in the phenomenon of ordinary interest, i.e., the discount of future goods as against present goods.

Interest is not merely interest on capital. Interest is not the specific income derived from the utilization of capital goods. The correspondence between three factors of production—labor, capital, and land—and three classes of income—wages, profit, and rent—as taught by the classical economists is untenable. Rent is not the specific revenue from land. Rent is a general catallactic phenomenon; it plays in the yield of labor and capital goods the same role it plays in the yield of land. Furthermore there is no homogeneous source of income that could be called profit in the sense in which the classical economists applied this term. Profit (in the sense of entrepreneurial profit) and interest are no more characteristic of capital than they are of land.

The prices of consumers' goods are by the interplay of the forces operating on the market apportioned to the various complementary factors cooperating in their production. As the consumers' goods are present goods, while the factors of production are means for the production of future goods, and as present goods are valued higher than future goods of the same kind and quantity, the sum thus apportioned, even in the imaginary construction of the evenly rotating economy, falls behind the present price of the consumers' goods concerned. This difference is the ordinary interest. It is not specifically connected

with any of the three classes of factors of production which the classical economists distinguished. Entrepreneurial profit and loss are produced by changes in the data and the resulting price changes which occur in the passing of the period of production.

Naïve reasoning does not see any problem in the current revenue derived from hunting, fishing, cattle breeding, forestry, and agriculture. Nature generates deer, fish, and cattle and makes them grow, causes the cows to give milk and the chickens to lay eggs, the trees to put on wood and to bear fruit, and the seeds to shoot into ears. He who has a title to appropriate for himself this recurring wealth enjoys a steady income. Like a stream which continually carries new water, the “stream of income” flows continually and conveys again and again new wealth. The whole process is plainly a natural phenomenon. But for the economist a problem is presented in the determination of prices for land, cattle, and all the rest. If future goods were not bought and sold at a discount as against present goods, the buyer of land would have to pay a price which equals the sum of all future net revenues and which would leave nothing for a current reiterated income.

The yearly recurring proceeds of the owners of land and cattle are not marked by any characteristic which would catallactically distinguish them from the proceeds stemming from produced factors of production which are used up sooner or later in the processes of production. The power of disposal over a piece of land is the control of this field’s cooperation in the production of all the fruit which can ever be grown on it, and the power of disposal over a mine is the control of its cooperation in the extraction of all the minerals which can ever be brought to the surface from it. In the same way the ownership of a machine or a bale of cotton is the control of its cooperation in the manufacture of all goods which are produced with its cooperation. The fundamental fallacy implied in all the productivity and use approaches to the problem of interest was that they traced back

the phenomenon of interest to these productive services rendered by the factors of production. However, the serviceableness of the factors of production determines the prices paid for them, not interest. These prices exhaust the whole difference between the productivity of a process aided by a definite factor's cooperation and that of a process lacking this cooperation. The difference between the sum of the prices of the complementary factors of production and the products which emerges even in the absence of changes in the market data concerned, is an outcome of the higher valuation of present goods as compared with future goods. As production goes on, the factors of production are transformed or ripen into present goods of a higher value. This increment is the source of specific proceeds flowing into the hands of the owners of the factors of production, of originary interest.

The owners of the material factors of production—as distinct from the pure entrepreneurs of the imaginary construction of an integration of catallactic functions—harvest two catallactically different items: the prices paid for the productive cooperation of the factors they control on the one hand and interest on the other hand. These two things must not be confused. It is not permissible to refer, in the explanation of interest, to the services rendered by the factors of production in the turning out of products.

Interest is a homogeneous phenomenon. There are no different sources of interest. Interest on durable goods and interest on consumption-credit are like other kinds of interest an outgrowth of the higher valuation of present goods as against future goods.

### **Originary Interest**

Originary interest is the ratio of the value assigned to want-satisfaction in the immediate future and the value assigned to want-satisfaction in remoter periods of the future. It manifests itself in the market economy in the discount of future goods as against present goods. It is a ratio of commodity prices, not a price

in itself. There prevails a tendency toward the equalization of this ratio for all commodities. In the imaginary construction of the evenly rotating economy the rate of originary interest is the same for all commodities.

Originary interest is not “the price paid for the services of capital.”<sup>2</sup> The higher productivity of more time-consuming roundabout methods of production which is referred to by Böhm-Bawerk and by some later economists in the explanation of interest, does not explain the phenomenon. It is, on the contrary, the phenomenon of originary interest that explains why less time-consuming methods of production are resorted to in spite of the fact that more time-consuming methods would render a higher output per unit of input. Moreover, the phenomenon of originary interest explains why pieces of usable land can be sold and bought at finite prices. If the future services which a piece of land can render were to be valued in the same way in which its present services are valued, no finite price would be high enough to impel its owner to sell it. Land could neither be bought nor sold against definite amounts of money, nor bartered against goods which can render only a finite number of services. Pieces of land would be bartered only against other pieces of land. A superstructure that can yield during a period of ten years an annual revenue of one hundred dollars would be priced (apart from the soil on which it is built) at the beginning of this period at one thousand dollars, at the beginning of the second year at nine hundred dollars, and so on.

Originary interest is not a price determined on the market by the interplay of the demand for and the supply of capital or capital goods. Its height does not depend on the extent of this demand and supply. It is rather the rate of originary interest that

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<sup>2</sup> This is the popular definition of interest as, for instance, given by Ely, Adams, Lorenz, and Young, *Outlines of Economics* (3d ed. New York, 1920), p. 493.

determines both the demand for and the supply of capital and capital goods. It determines how much of the available supply of goods is to be devoted to consumption in the immediate future and how much to provision for remoter periods of the future.

People do not save and accumulate capital because there is interest. Interest is neither the impetus to saving nor the reward or the compensation granted for abstaining from immediate consumption. It is the ratio in the mutual valuation of present goods as against future goods.

The loan market does not determine the rate of interest. It adjusts the rate of interest on loans to the rate of ordinary interest as manifested in the discount of future goods.

Ordinary interest is a category of human action. It is operative in any valuation of external things and can never disappear. If one day the state of affairs were to return which was actual at the close of the first millennium of the Christian era when people believed that the ultimate end of all earthly things was impending, men would stop providing for future secular wants. The factors of production would in their eyes become useless and worthless. The discount of future goods as against present goods would not vanish. It would, on the contrary, increase beyond all measure. On the other hand, the fading away of ordinary interest would mean that people do not care at all for want-satisfaction in nearer periods of the future. It would mean that they prefer to an apple available today, tomorrow, in one year or in ten years, two apples available in a thousand or ten thousand years.

We cannot even think of a world in which ordinary interest would not exist as an inexorable element in every kind of action. Whether there is or is not division of labor and social cooperation and whether society is organized on the basis of private or of public control of the means of production, ordinary interest is

always present. In a socialist commonwealth its role would not differ from that in the market economy.

Böhm-Bawerk has once for all unmasked the fallacies of the naïve productivity explanations of interest, i.e., of the idea that interest is the expression of the physical productivity of factors of production. However, Böhm-Bawerk has himself based his own theory to some extent on the productivity approach. In referring in his explanation to the technological superiority of more time-consuming, roundabout processes of production, he avoids the crudity of the naïve productivity fallacies. But in fact he returns, although in a subtler form, to the productivity approach. Those later economists who, neglecting the time-preference idea, have stressed exclusively the productivity idea contained in Böhm-Bawerk's theory cannot help concluding that originary interest must disappear if men were one day to reach a state of affairs in which no further lengthening of the period of production could bring about a further increase in productivity.<sup>3</sup> This is, however, utterly wrong. Originary interest cannot disappear as long as there is scarcity and therefore action.

As long as the world is not transformed into a land of Cockaigne, men are faced with scarcity and must act and economize; they are forced to choose between satisfaction in nearer and in remoter periods of the future because neither for the former nor for the latter can full contentment be attained. Then a change in the employment of factors of production which withdraws such factors from their employment for want-satisfaction in the nearer future and devotes them to want-satisfaction in the remoter future must necessarily impair the state of satisfaction in the nearer

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<sup>3</sup> Cf. Hayek, "The Mythology of Capital," *The Quarterly Journal of Economics*, L (1936), 223 ff. However Professor Hayek has since partly changed his point of view. (Cf. his article "Time-Preference and Productivity, a Reconsideration," *Economica*, XII [1945], 22-25.) But the idea criticized in the text is still widely held by economists.



future and improve it in the remoter future. If we were to assume that this is not the case, we should become embroiled in insoluble contradictions. We may at best think of a state of affairs in which technological knowledge and skill have reached a point beyond which no further progress is possible for mortal men. No new processes increasing the output per unit of input can henceforth be invented. But if we suppose that some factors of production are scarce, we must not assume that all processes which—apart from the time they absorb—are the most productive ones are fully utilized, and that no process rendering a smaller output per unit of input is resorted to merely because of the fact that it produces its final result sooner than other, physically more productive processes. Scarcity of factors of production means that we are in a position to draft plans for the improvement of our well-being the realization of which is unfeasible because of the insufficient quantity of the means available. It is precisely the unfeasibility of such desirable improvements that constitutes the element of scarcity. The reasoning of the modern supporters of the productivity approach is misled by the connotations of Böhm-Bawerk's term *roundabout methods of production* and the idea of technological improvement which it suggests. However, if there is scarcity, there must always be an unused technological opportunity to improve the state of well-being by a lengthening of the period of production in some branches of industry, regardless of whether or not the state of technological knowledge has changed. If the means are scarce, if the praxeological correlation of ends and means still exists, there are by logical necessity unsatisfied wants with regard both to nearer and to remoter periods of the future. There are always goods the procurement of which we must forego because the way that leads to their production is too long and would prevent us from satisfying more urgent needs. The fact that we do not provide more amply for the future is the outcome of a weighing of satisfaction in nearer periods of the future against satisfaction in remoter periods of the

future. The ratio which is the outcome of this valuation is ordinary interest.

In such a world of perfect technological knowledge a promoter drafts a plan *A* according to which a hotel in picturesque, but not easily accessible, mountain districts and the roads leading to it should be built. In examining the practicability of this plan he discovers that the means available are not sufficient for its execution. Calculating the prospects of the profitability of the investment, he comes to the conclusion that the expected proceeds are not great enough to cover the costs of material and labor to be expended and interest on the capital to be invested. He renounces the execution of project *A* and embarks instead upon the realization of another plan, *B*. According to plan *B* the hotel is to be erected in a more easily accessible location which does not offer all the advantages of the picturesque landscape which plan *A* had selected, but in which it can be built either with lower costs of construction or finished in a shorter time. If no interest on the capital invested were to enter into the calculation, the illusion could arise that the state of the market data—supply of capital goods and the valuations of the public—allows for the execution of plan *A*. However, the realization of plan *A* would withdraw scarce factors of production from employments in which they could satisfy wants considered more urgent by the consumers. It would mean a manifest malinvestment, a squandering of the means available.

A lengthening of the period of production can increase the quantity of output per unit of input or produce goods which cannot be produced at all within a shorter period of production. But it is not true that the imputation of the value of this additional wealth to the capital goods required for the lengthening of the period of production generates interest. If one were to assume this, one would relapse into the crassest errors of the productivity approach, irrefutably exploded by Böhm-Bawerk. The

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

It has been asserted that in the imaginary construction of the evenly rotating economy no interest would appear.<sup>4</sup> However, it can be shown that this assertion is incompatible with the assumptions on which the construction of the evenly rotating economy is based.

We begin with the distinction between two classes of saving: plain saving and capitalist saving. Plain saving is merely the piling up of consumers' goods for later consumption. Capitalist saving is the accumulation of goods which are designed for an improvement of production processes. The aim of plain saving is later consumption; it is merely postponement of consumption. Sooner or later the goods accumulated will be consumed and nothing will be left. The aim of capitalist saving is first an improvement in the productivity of effort. It accumulates capital goods which are employed for further production and are not merely reserves for later consumption. The boon derived from plain saving is later consumption of the stock not instantly consumed but accumulated for later use. The boon derived from capitalist saving is the increase of the quantity of goods produced or the production of goods which could not be produced at all without its aid. In constructing the image of an evenly rotating (static) economy, economists disregard the process of capital accumulation; the capital goods are given and remain, as, according to the underlying assumptions, no changes occur in the data. There is neither accumulation of new capital through saving, nor consumption of capital available through a surplus of

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<sup>4</sup> Cf. J. Schumpeter, *The Theory of Economic Development*, trans. by R. Opie (Cambridge, 1934), pp. 34-40, 54.

consumption over income, i.e., current production minus the funds required for the maintenance of capital. It is now our task to demonstrate that these assumptions are incompatible with the idea that there is no interest.

There is no need to dwell, in this reasoning, upon plain saving. The objective of plain saving is to provide for a future in which the saver could possibly be less amply supplied than in the present. Yet, one of the fundamental assumptions characterizing the imaginary construction of the evenly rotating economy is that the future does not differ at all from the present, that the actors are fully aware of this fact and act accordingly. Hence, in the frame of this construction, no room is left for the phenomenon of plain saving.

It is different with the fruit of capitalist saving, the accumulated stock of capital goods. There is in the evenly rotating economy neither saving and accumulation of additional capital goods nor eating up of already existing capital goods. Both phenomena would amount to a change in the data and would thus disturb the even rotation of the imaginary system. Now, the magnitude of saving and capital accumulation in the past—i.e., in the period preceding the establishment of the evenly rotating economy—was adjusted to the height of the rate of interest. If—with the establishment of the conditions of the evenly rotating economy—the owners of the capital goods were no longer to receive any interest, the conditions which were operative in the allocation of the available stocks of goods to the satisfaction of wants in the various periods of the future would be upset. The altered state of affairs requires a new allocation. Also in the evenly rotating economy the difference in the valuation of want-satisfaction in various periods of the future cannot disappear. Also in the frame of this imaginary construction, people will assign a higher value to an apple available today as against an apple available in ten or a hundred years. If the capitalist no longer receives interest, the

balance between satisfaction in nearer and remoter periods of the future is disarranged. The fact that a capitalist has maintained his capital at just 100,000 dollars was conditioned by the fact that 100,000 present dollars were equal to 105,000 dollars available twelve months later. These 5,000 dollars were in his eyes sufficient to outweigh the advantages to be expected from an instantaneous consumption of a part of this sum. If interest payments are eliminated, capital consumption ensues.

This is the essential deficiency of the static system as Schumpeter depicts it. It is not sufficient to assume that the capital equipment of such a system has been accumulated in the past, that it is now available to the extent of this previous accumulation and is henceforth unalterably maintained at this level. We must also assign in the frame of this imaginary system a role to the operation of forces which bring about such a maintenance. If one eliminates the capitalist's role as receiver of interest, one replaces it by the capitalist's role as consumer of capital. There is no longer any reason why the owner of capital goods should abstain from employing them for consumption. Under the assumptions implied in the imaginary construction of static conditions (the evenly rotating economy) there is no need to keep them in reserve for rainy days. But even if, inconsistently enough, we were to assume that a part of them is devoted to this purpose and therefore withheld from current consumption, at least that part of capital will be consumed which corresponds to the amount that capitalist saving exceeds plain, saving.<sup>5</sup>

If there were no originary interest, capital goods would not be devoted to immediate consumption and capital would not be consumed. On the contrary, under such an unthinkable and unimaginable state of affairs there would be no consumption at all, but only saving, accumulation of capital, and investment. Not

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<sup>5</sup> Cf. Robbins, "On a Certain Ambiguity in the Conception of Stationary Equilibrium," *The Economic Journal*, XL (1930), 211 ff.

the impossible disappearance of originary interest, but the abolition of payment of interest to the owners of capital, would result in capital consumption. The capitalists would consume their capital goods and their capital precisely because there is originary interest and present want-satisfaction is preferred to later satisfaction.

Therefore there cannot be any question of abolishing interest by any institutions, laws, and devices of bank manipulation. He who wants to “abolish” interest will have to induce people to value an apple available in a hundred years no less than a present apple. What can be abolished by laws and decrees is merely the right of the capitalists to receive interest. But such laws would bring about capital consumption and would very soon throw mankind back into the original state of natural poverty.

### **The Height of Interest Rates**

In plain saving and in the capitalist saving of isolated economic actors the difference in the valuation of want satisfaction in various periods of the future manifests itself in the extent to which people provide in a more ample way for nearer than for remoter periods of the future. Under the conditions of a market economy the rate of originary interest is, provided the assumptions involved in the imaginary construction of the evenly rotating economy are present, equal to the ratio of a definite amount of money available today and the amount available at a later date which is considered as its equivalent.

The rate of originary interest directs the investment activities of the entrepreneurs. It determines the length of waiting time and of the period of production in every branch of industry.

People often raise the question of which rate of interest, a “high” or a “low,” stimulates saving and capital accumulation more and which less. The question makes no sense. The lower the discount attached to future goods is, the lower is the rate of originary

interest. People do not save more because the rate of ordinary interest rises, and the rate of ordinary interest does not drop on account of an increase in the amount of saving. Changes in the ordinary rates of interest and in the amount of saving are—other things, especially the institutional conditions, being equal—two aspects of the same phenomenon. The disappearance of ordinary interest would be tantamount to the disappearance of consumption. The increase of ordinary interest beyond all measure would be tantamount to the disappearance of saving and any provision for the future.

The quantity of the available supply of capital goods influences neither the rate of ordinary interest nor the amount of further saving. Even the most plentiful supply of capital need not necessarily bring about either a lowering of the rate of ordinary interest or a drop in the propensity to save. The increase in capital accumulation and the per capita quota of capital invested which is a characteristic mark of economically advanced nations does not necessarily either lower the rate of ordinary interest or weaken the propensity of individuals to make additional savings. People are, in dealing with these problems, for the most part misled by comparing merely the market rates of interest as they are determined on the loan market. However, these gross rates are not merely expressive of the height of ordinary interest. They contain, as will be shown later, other elements besides, the effect of which accounts for the fact that the gross rates are as a rule higher in poorer countries than in richer ones.

It is generally asserted that, other things being equal, the better individuals are supplied for the immediate future, the better they provide for wants for the remoter future. Consequently, it is said, the amount of total saving and capital accumulation within an economic system depends on the arrangement of the population into groups of different income levels. In a society with approximate income equality there is, it is said, less saving than in

a society in which there is more inequality. There is a grain of truth in such observations. However, they are statements about psychological facts and as such lack the universal validity and necessity inherent in praxeological statements. Moreover, the other things the equality of which they presuppose comprehend the various individuals' valuations, their subjective value judgments in weighing the pros and cons of immediate consumption and of postponement of consumption. There are certainly many individuals whose behavior they describe correctly, but there also are other individuals who act in a different way. The French peasants, although for the most part people of moderate wealth and income, were in the nineteenth century widely known for their parsimonious habits, while the wealthy members of the aristocracy and the heirs of huge fortunes amassed in commerce and industry were no less renowned for their profligacy.

It is therefore impossible to formulate any praxeological theorem concerning the relation of the amount of capital available in the whole nation or to individual people on the one hand and the amount of saving or capital consumption and the height of the originary rate of interest on the other hand. The allocation of scarce resources to want satisfaction in various periods of the future is determined by value judgments and indirectly by all those factors which constitute the individuality of the acting man.

### **Originary Interest in the Changing Economy**

So far we have dealt with the problem of originary interest under certain assumptions: that the turnover of goods is effected by the employment of neutral money; that saving, capital accumulation, and the determination of interest rates are not hampered by institutional obstacles; and that the whole economic process goes on in the frame of an evenly rotating economy. We shall eliminate the first two of these assumptions in the following chapter. Now we want to deal with originary interest in a changing economy.



He who wants to provide for the satisfaction of future needs must correctly anticipate these needs. If he fails in this understanding of the future, his provision will prove less satisfactory or totally futile. There is no such thing as an abstract saving that could provide for all classes of want-satisfaction and would be neutral with regard to changes occurring in conditions and valuations. Originary interest can therefore in the changing economy never appear in a pure unalloyed form. It is only in the imaginary construction of the evenly rotating economy that the mere passing of time matures originary interest; in the passage of time and with the progress of the process of production more and more value accrues, as it were, to the complementary factors of production; with the termination of the process of production the lapse of time has generated in the price of the product the full quota of originary interest. In the changing economy during the period of production there also arise synchronously other changes in valuations. Some goods are valued higher than previously, some lower. These alterations are the source from which entrepreneurial profits and losses stem. Only those entrepreneurs who in their planning have correctly anticipated the future state of the market are in a position to reap, in selling the products, an excess over the costs of production (inclusive of net originary interest) expended. An entrepreneur who has failed in his speculative understanding of the future can sell his products, if at all, only at prices which do not cover completely his expenditures plus originary interest on the capital invested.

Like entrepreneurial profit and loss, interest is not a price, but a magnitude which is to be disengaged by a particular mode of computation from the price of the products of successful business operations. The gross difference between the price at which a commodity is sold and the costs expended in its production (exclusive of interest on the capital invested) was called profit in

the terminology of British classical economics.<sup>6</sup> Modern economics conceives this magnitude as a complex of catallactically disparate items. The excess of gross receipts over expenditures which the classical economists called profit includes the price for the entrepreneur's own labor employed in the process of production, interest on the capital invested, and finally entrepreneurial profit proper. If such an excess has not been reaped at all in the sale of the products, the entrepreneur not only fails to get profit proper, he receives neither an equivalent for the market value of the labor he has contributed nor interest on the capital invested.

The breaking down of gross profit (in the classical sense of the term) into managerial wages, interest, and entrepreneurial profit is not merely a device of economic theory. It developed, with progressing perfection in business practices of accountancy and calculation, in the field of commercial routine independently of the reasoning of the economists. The judicious and sensible businessman does not attach practical significance to the confused and garbled concept of profit as employed by the classical economists. His notion of costs of production includes the potential market price of his own services contributed, the interest paid on capital borrowed, and the potential interest he could earn, according to the conditions of the market, on his own capital invested in the enterprise by lending it to other people. Only the excess of proceeds over the costs so calculated is in his eyes entrepreneurial profit.<sup>7</sup>

The precipitation of entrepreneurial wages from the complex of all the other items included in the profit concept of classical

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<sup>6</sup> Cf. R. Whately, *Elements of Logic* (9th ed. London, 1848), pp. 354 ff.; E. Cannan, *A History of the Theories of Production and Distribution in English Political Economy from 1776 to 1848* (3d ed. London, 1924), pp. 189 ff.

<sup>7</sup> But, of course, the present-day intentional confusion of all economic concepts is conducive to obscuring this distinction. Thus, in the United States, in dealing with the dividends paid by corporations people speak of "profits."

economics presents no particular problem. It is more difficult to sunder entrepreneurial profit from originary interest. In the changing economy interest stipulated in loan contracts is always a gross magnitude out of which the pure rate of originary interest must be computed by 2 particular process of computation and analytical repartition. It has been shown already that in every act of lending, even apart from the problem of changes in the monetary unit's purchasing power, there is an element of entrepreneurial venture. The granting of credit is necessarily always an entrepreneurial speculation which can possibly result in failure and the loss of a part or of the total amount lent. Every interest stipulated and paid in loans includes not only originary interest but also entrepreneurial profit.

This fact for a long time misled the attempts to construct a satisfactory theory of interest. It was only the elaboration of the imaginary construction of the evenly rotating economy that made it possible to distinguish precisely between originary interest and entrepreneurial profit and loss.

### **The Computation of Interest**

Originary interest is the outgrowth of valuations unceasingly fluctuating and changing. It fluctuates and changes with them. The custom of computing interest pro anno is merely commercial usage and a convenient rule of reckoning. It does not affect the height of the interest rates as determined by the market.

The activities of the entrepreneurs tend toward the establishment of a uniform rate of originary interest in the whole market economy. If there turns up in one sector of the market a margin between the prices of present goods and those of future goods which deviates from the margin prevailing in other sectors, a trend toward equalization is brought about by the striving of businessmen to enter those sectors in which this margin is higher and to avoid those in which it is lower. The final rate of originary

interest is the same in all parts of the market of the evenly rotating economy.

The valuations resulting in the emergence of ordinary interest prefer satisfaction in a nearer period of the future to satisfaction of the same kind and extent in a remoter period of the future. Nothing would justify the assumption that this discounting of satisfaction in remoter periods progresses continuously and evenly. If we were to assume this, we would imply that the period of provision is infinite. However, the mere fact that individuals differ in their provision for future needs and that even to the most provident actor provision beyond a definite period appears supererogatory, forbids us to think of the period of provision as infinite.

The usages of the loan market must not mislead us. It is customary to stipulate a uniform rate of interest for the whole duration of a loan contract<sup>8</sup> and to apply a uniform rate in computing compound interest. The real determination of interest rates is independent of these and other arithmetical devices of interest computation. If the rate of interest is unalterably fixed by contract for a period of time, intervening changes in the market rate of interest are reflected in corresponding changes in the prices paid for the principal, due allowance being made for the fact that the amount of principal to be paid back at the maturity of the loan is unalterably stipulated. It does not affect the result whether one calculates with an unchanging rate of interest and changing prices of the principal or with changing interest rates and an unchanging amount of the principal, or with changes in both magnitudes.

The terms of a loan contract are not independent of the stipulated duration of the loan. Not only because those components of the gross rate of market interest which made it deviate from the rate of ordinary interest are affected by differences in the duration of

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<sup>8</sup> There are, of course, also deviations from this usage.

the loan, but also on account of factors which bring about changes in the rate of ordinary interest, loan contracts are valued and appraised differently according to the duration of the loan stipulated.

## Reading 10

# Competition and Monopoly

### Context and Summary

In the following reading, Professor Dominick Armentano reviews the way monopoly is treated in mainstream neoclassical theory and by various Austrian economists. Of course, the neoclassical theory expresses everything in terms of quantitative proximity to an ideal equilibrium state. Therefore, monopoly is when price and quantity do not match the “perfectly competitive” outcome, which, as Armentano shows, is neither perfect nor competitive. This state is unrealizable and undesirable, yet it is used as a basis of comparison for all market outcomes.

For Mises, monopoly is an extreme case in which a single seller or cartel gains complete control of the supply of a good and usurps the sovereign consumer by charging a higher price. Israel Kirzner held that the single seller of a product is not necessarily a monopoly because the threat of competition remains. For Kirzner, therefore, a monopolist is one who has gained control over an input to production, which disallows competition. For both Mises and Kirzner, consumers are harmed and “dethroned” by monopolists.

Rothbard characteristically bucked the trend. Rothbard noted that the preceding definitions would include everyone, because every product and all inputs are differentiated to some extent, even if by mere ownership (e.g., I am the sole seller of my labor). And a definition that includes everything is unusable.

Rothbard put forward a different definition of monopoly: “a grant of privilege from the state restricting competitive production or

sale.” This definition avoids the pitfalls and confusion of the others because it objectively demarcates monopolies from other firms, and it does not use an unattainable or arbitrary basis of comparison.

This reading originally appeared in *New Directions in Austrian Economics*, edited by Louis M. Spadaro, an excellent compilation of articles by leading Austrian economists in 1978.

# A Critique of Neoclassical and Austrian Monopoly Theory

D. T. Armentano

One of the most controversial areas in Austrian economics, and one where even long-established Austrian theorists differ sharply, is monopoly theory. Indeed, as we shall see below, the differences are not merely semantic, nor are they confined to detail or some minor theoretical implication. Rather, there are major and fundamental disagreements between some of the leading Austrians, and these disagreements are created by wholly different theories concerning the *definition* of monopoly, the *origins* of monopoly, and the supposed *effects* of monopoly on consumer sovereignty and efficient resource allocation.

## Neoclassical Monopoly Theory

By way of contrast, and in order to place the Austrian theories of monopoly in perspective, it is perhaps necessary to review and criticize the traditional (neoclassical) theory of monopoly.<sup>1</sup>

A monopolist in neoclassical analysis is a firm that faces the entire demand for the product under consideration. In order to maximize its profits, it produces an output where the marginal revenue associated with the last unit sold is just equal to the marginal costs associated with producing and selling that final unit. But since the demand function facing the monopolist is necessarily sloped downward (perhaps even steeply downward),

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



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 *nonlegal* “barriers to entry” that, allegedly, preserve monopoly and resource misallocation.<sup>2</sup> 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.”

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<sup>2</sup> Willard F. Mueller, *A Primer on Monopoly and Competition* (Random House, 1970), Chapter 2.

## 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 nonlegal 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.<sup>3</sup> Pure competition is a static, equilibrium condition whose very assumptions are such that competitive process is ruled out by definition. Or to put the matter more charitably, while pure competition may describe the final outcome of a particular competitive situation, the ultimate end result, it does not describe the competitive *process* that produced that particular outcome. The purely competitive theory is *not* a theory of competition as such.

The neoclassical habit of confusing competitive process with a final, static equilibrium condition makes for gross errors in economic analysis. For instance, product differentiation, advertising, price competition (including price discrimination),

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<sup>3</sup> Israel M. Kirzner, *Competition and Entrepreneurship* (University of Chicago Press, 1973).

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.<sup>4</sup>

### **Barriers to Entry: A Critique**

Discussions about the nonlegal 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

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

the higher costs in the form of higher prices, which contributes, it is alleged, to a real reduction in consumer welfare.

On the other hand—indeed, on the opposite hand—scale economies also limit competition. The fact that certain firms realize lower costs per unit because of large volumes gives these firms the “power” to exclude smaller firms, or smaller potential entrants, from the market. Ergo, we are supposed to regret the reduced competition and consequent resource misallocation since inefficient firms cannot compete with efficient ones.

Actually, of course, the neoclassical theorists have gotten the matter completely and precisely *backward*. It is because, and only because, consumers find resources satisfactorily allocated that would-be competitors find entry difficult or impossible. Product differentiation, especially differentiation that does raise prices, can only act as a barrier to entry if consumers *prefer* that differentiation, and pay the presumably higher prices associated with, say, new annual auto styles. If consumers do not prefer such differentiation and, instead, reward the firms that change styles *less* often, or not at all, then product differentiation could hardly act as a barrier to competitive entry. Indeed, in the case just postulated, product differentiation would be an open invitation to entry and to competition.

To condemn commercially successful product differentiation as a misallocation of scarce resources, therefore, is to condemn the very “resource allocations” that consumers apparently prefer. It is the neoclassical economist’s allegedly “optimal” allocation of resources *under purely competitive conditions* that product differentiation upsets, and not any allocation that can be associated with free consumer choice.

The same sort of argument can be made—and even more obviously—with respect to scale economies. Consumers do not regret the economies not 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.<sup>5</sup>

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 (antimerger policy, for instance) founded on such assumptions.

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<sup>5</sup> *Ibid.*, pp. 212–15, 246, 267–68.

But if the neoclassical approach to monopoly and competition is defective, what is the correct approach in this area?

Indeed, is there a logical and rational theory of monopoly and, accordingly, an appropriate public policy to complement that theoretical approach? In the sections below we will turn to a critical examination of Austrian monopoly theory in an attempt to answer these questions. The views of von Mises, Kirzner, and Rothbard will be taken as representative of various Austrian positions concerning monopoly.

### Mises's Monopoly Theory

Monopoly exists for Ludwig von Mises when "... the whole supply of the commodity is controlled by a single seller or a group of sellers acting in concert."<sup>6</sup> This condition puts the monopolist (or cartel) in the position of being able to restrict supply in order to raise market price without having to "fear that his plans will be frustrated by interference on the part of the other sellers of the *same* commodity."<sup>7</sup> 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.<sup>8</sup>

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

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*, pp. 358-60.

Importantly if such monopoly prices *do* exist, then they are an “infringement of the supremacy of the consumers and the democracy of the market.”<sup>9</sup> 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 ...<sup>10</sup>

And again:

The characteristic feature of monopoly prices is the monopolist’s defiance of the wishes of the consumers.<sup>11</sup>

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,<sup>12</sup> geographic monopoly,<sup>13</sup> limited-space monopoly,<sup>14</sup> and monopoly that might arise because consumers place a “special confidence ... on the individual or firm concerned on account of previous experience,”<sup>15</sup> as with certain trademarked drugs.

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<sup>9</sup> *Ibid.*, p. 358.

<sup>10</sup> *Ibid.*, p. 371.

<sup>11</sup> *Ibid.*, p. 373.

<sup>12</sup> *Ibid.*, p. 371.

<sup>13</sup> *Ibid.*, p. 373.

<sup>14</sup> *Ibid.*, p. 375.

<sup>15</sup> *Ibid.*, p. 364.

## Kirzner's Monopoly Theory

Professor Kirzner's theory of monopoly can be derived logically from his well-articulated theory of the competitive process.<sup>16</sup> Kirzner views the market process as one in which market sellers are continually attempting to inch ahead of rivals by offering more attractive opportunities to potential buyers. And he views this process as *inherently* competitive since the key ingredient that makes the process function—entrepreneurship—can *never* be monopolized. For Kirzner, pure entrepreneurship requires no resources whatsoever; hence the freedom to enter the market is absolute since no obstacles to entry can ever exist in a free market.

However, the exercise of entrepreneurship is quite another matter. Here the exclusive ownership or control of “*all* the current endowment of a certain resource” is defined by Kirzner to *be* monopoly, can indeed block entry into the production of some specific good, and can hamper competition and “impede the course of the market process.” A monopoly producer for Kirzner is one whose “exclusive input blocks competitive entry into the production of his products.”<sup>17</sup> To employ Kirzner's example, without access to oranges, “production of orange juice is blocked.”<sup>18</sup>

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

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<sup>16</sup> Kirzner, *op. cit.*, Chapter 1.

<sup>17</sup> *Ibid.*, p. 21.

<sup>18</sup> *Ibid.*, p. 103.



control of a certain resource, the very *possibility* of competition—and the benefits to consumers that are the consequences of competition—are eliminated.<sup>19</sup> 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.”<sup>20</sup>

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.<sup>21</sup> 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.”<sup>22</sup>

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<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*, p. 105.

<sup>21</sup> *Ibid.*, p. 110.

<sup>22</sup> *Ibid.*, p. 111.

## Rothbard's Monopoly Theory

Professor Rothbard's analysis of monopoly, monopoly price, and the welfare implications of such economic conditions differs radically from that of both Mises and Kirzner. Indeed, in his discussion of monopoly, Rothbard is sharply critical not only of the neoclassical monopoly theories, but also implicitly critical (and occasionally explicitly critical) of views held by his fellow Austrian theorists as well.<sup>23</sup>

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."<sup>24</sup>

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

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<sup>23</sup> 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.

<sup>24</sup> Rothbard, *op. cit.*, pp. 590-93.

monopoly and everyone a monopolist is barren, “confusing,” and “absurd” according to Rothbard.<sup>25</sup>

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.<sup>26</sup>

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.<sup>27</sup>

It has been common, of course, to speak of monopoly price as that price accomplished when output is restricted under conditions of inelastic demand, thus increasing the net income of the supplier. Even Mises, it will be recalled, employed the term in this manner

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<sup>25</sup> *Ibid.*, p. 591.

<sup>26</sup> *Ibid.*, p. 593.

<sup>27</sup> *Ibid.*, p. 614.

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.<sup>28</sup>

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.<sup>29</sup> 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 creates a number of familiar difficulties. In the first place, there would appear to be no objective way to define *beforehand* some “homogeneous” stock of resources that might be monopolized. All individually owned stocks of a resource could be differentiated at least with respect to location; in addition, the private-property system itself necessarily imparts a “differentiation” to all privately owned stocks. Further, even identical units of some given stock might be regarded differently by potential users, and there would be no way to determine this beforehand. Hence, this view of monopoly could reduce logically to the notion that each and every unit of everyone’s property stock is owned “monopolistically.”

Rothbard, it will be recalled, was critical of this definition of monopoly because its all-inclusiveness made it

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<sup>28</sup> *Ibid.*, pp. 608-9.

<sup>29</sup> *Ibid.*, p. 564.

“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.<sup>30</sup> 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.<sup>31</sup> 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*

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<sup>30</sup> Kirzner, *op. cit.*, p. 103.

<sup>31</sup> *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.

*themselves*” of competition may be eliminated by monopoly ownership of a resource.<sup>32</sup>

Another difficulty with Professor Kirzner’s approach is his use of the qualifying term, “*current* endowment of a certain resource.”<sup>33</sup> 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,”<sup>34</sup> he would be arguing a tenuous point at best. Clearly such a “monopoly” allows no such thing. In this example, *future*<sup>35</sup> entry is clearly possible and cannot be precluded *a priori*. And since the entire Austrian tradition in this area is to treat the competitive process as one that unfolds through *time* anyway, how are the potential entrepreneurs effectively blocked from “discovering unexploited opportunities for profit”?

As a final point, monopoly over a resource would appear to make rational economic calculation difficult (if not impossible) since no “market” would then exist for the resource.<sup>36</sup> Without markets economic calculation is impossible since objective prices cannot

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<sup>32</sup> *Ibid.*, p. 103.

<sup>33</sup> *Ibid.*, p. 21.

<sup>34</sup> *Ibid.*, p. 110.

<sup>35</sup> And “*future*” in an entrepreneurial sense can mean the next moment competitive supply appears or threatens to appear.

<sup>36</sup> See Rothbard’s discussion of similar problems for cartels in *Man, Economy, and State*.

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.<sup>37</sup> 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.”<sup>38</sup>

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

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<sup>37</sup> Kirzner, *op. cit.*, p. 110.

<sup>38</sup> *Ibid.*, p. 111.



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)<sup>39</sup> have committed no socially harmful act. Restricted supplies and higher prices *relative* to what? *All suppliers in free markets restrict their supplies in the sense that they only supply as much of a good or resource as they determine will maximize their monetary or physis 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.

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<sup>39</sup> *Ibid.*, p. 110.

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 nonoptimally 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.

## Reading 11

### Calculation and Socialism

#### Context and Summary

These last two readings on socialism and the boom-bust cycle rely on the concepts presented in earlier readings. Understanding the economic calculation critique of socialism requires an appreciation of:

- the formation and function of market prices,
- the complexity of the division of labor,
- the way money serves as a common unit for basic arithmetic like profit calculation,
- the role of the entrepreneur in the market economy,
- the allocation of capital goods across stages of production,
- how saving and capital accumulation are required for economic growth and how capital consumption reduces productivity,
- and the consequences of government monopoly over production.

In the following reading from Socialism, Mises explains how money prices are critical for an economy to be an economy, i.e., a system in which production and consumption are *economized*. Mises concludes, “Socialism is the renunciation of rational economy.”

It is important to note that this fatal flaw does not depend on any assumption about human nature or incentives. Socialists claim that a “new Socialist man” will emerge, who is eager to serve his comrades and make personal sacrifices for the good of the

collective. The central planners are supposed to be impartial, wise, and benevolent. While the “who will take out the trash?” criticism of socialism is common and effective, Mises’s argument is truly devastating because it allows the socialists to keep their unrealistic assumptions about human nature and the knowledge of experts. Mises shows that a population of angels with a central planning board made up of the most advanced supercomputers imaginable would still not be able to economize production.

This reading is taken from Chapter 1, “The Nature of Economic Activity,” in *Socialism: An Economic and Sociological Analysis*.

# Selection from *Socialism*

## Ludwig von Mises

### 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 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.<sup>1 2</sup>

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

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

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

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.<sup>3</sup> 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 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

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<sup>3</sup> uhel, *Zur Lehre von den Bedürfnissen*, Innsbruck 1907, p. 198.

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 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.

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.<sup>4</sup> All these are diletantisms – 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

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<sup>4</sup> Wieser, *Über den Ursprung und die Hauptgesetze des wirtschaftlichen Wertes*, Wien 1884, p. 185 et seq.

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 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.<sup>5</sup>

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

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<sup>5</sup> Gottl-Ottlilienfeld, *Wirtschaft und Technik* (Grundriss der Sozialökonomik, II. Tübingen 1914), p. 216.

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 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 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.<sup>6</sup>

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

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<sup>6</sup> 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.

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 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.

## Reading 12

# The Austrian Theory of the Business Cycle

### Context and Summary

Rothbard notes that “a theory of depression must account for the mammoth cluster of errors which appears swiftly and suddenly at a moment of economic crisis, and lingers through the depression period until recovery.” If, in a market economy, entrepreneurs are guided by profit calculations to economize production, then why do we see periodic, economy-wide booms and busts? What causes entrepreneurs everywhere to invest in new lines of production that do not pan out, causing massive layoffs, a plunge in capital goods prices, and overall entrepreneurial malaise? The answer is that something fishy happens in credit markets when fractional reserve banks or the central bank expand credit beyond voluntary savings.

Normally, the supply of credit matches the supply of resources that have been set aside for investment in production. Consumers decide how much they want to consume and how much they are willing to save according to their time preferences, and entrepreneurs respond accordingly. Additional savings permit new longer and more capital-intensive lines of production to be started.

When the supply of credit is expanded beyond real savings, entrepreneurs start the longer lines of production and begin to create the specific capital goods for those new lines, but consumers have not set aside real resources for those projects to be completed. The new money and artificially low interest rates made many projects look profitable, but it is a mirage.

The disconnect between consumers and entrepreneurs is hidden for a while. During the boom, wages and incomes increase, stock

prices soar, employment is up, borrowing is easy, and the whole economy appears to buzz with activity. The boom is only ominous to those privy to Austrian business cycle theory and the bubble-forming consequences of easy credit.

When the bust arrives, as interest rates rise and the cost of continued production becomes prohibitive, the projects that were stimulated by easy credit are abandoned. Workers are laid off, capital is liquidated, and the stock market tanks. Fear and uncertainty replace the exuberance of the boom.

Of course, the bust is what many view as the problem, and so governments enact policies aimed at reinflating the economy with more spending and investment. When expansionary monetary policy fails to bring about desired results, the government goes on massive spending sprees and tries to prop up prices and wages.

But the bust isn't the problem. The boom is where resources are malinvested and consumption surges. The solution is to stop the artificial booms from starting, not to delay and inhibit the correction phase.

Ludwig von Mises originally expounded this theory of business cycles in *The Theory of Money and Credit*, published in 1912. In the following reading, Rothbard walks us through Mises's theory and contrasts it to the dominant Keynesian view.

# Economic Depressions: Their Cause and Cure

**Murray Rothbard**

We live in a world of euphemism. Undertakers have become “morticians,” press agents are now “public relations counsellors” and janitors have all been transformed into “superintendents.” In every walk of life, plain facts have been wrapped in cloudy camouflage.

No less has this been true of economics. In the old days, we used to suffer nearly periodic economic crises, the sudden onset of which was called a “panic,” and the lingering trough period after the panic was called “depression.”

The most famous depression in modern times, of course, was the one that began in a typical financial panic in 1929 and lasted until the advent of World War II. After the disaster of 1929, economists and politicians resolved that this must never happen again. The easiest way of succeeding at this resolve was, simply to define “depressions” out of existence. From that point on, America was to suffer no further depressions. For when the next sharp depression came along, in 1937–38, the economists simply refused to use the dread name, and came up with a new, much softer-sounding word: “recession.” From that point on, we have been through quite a few recessions, but not a single depression.

But pretty soon the word “recession” also became too harsh for the delicate sensibilities of the American public. It now seems that we had our last recession in 1957–58. For since then, we have only had “downturns,” or, even better, “slowdowns,” or “sidewise movements.” So be of good cheer; from now on, depressions and even recessions have been outlawed by the semantic fiat of economists; from now on, the worst that can possibly happen to

us are “slowdowns.” Such are the wonders of the “New Economics.”

For 30 years, our nation’s economists have adopted the view of the business cycle held by the late British economist, John Maynard Keynes, who created the Keynesian, or the “New,” Economics in his book, *The General Theory of Employment, Interest, and Money*, published in 1936. Beneath their diagrams, mathematics, and inchoate jargon, the attitude of Keynesians toward booms and bust is simplicity, even naivete, itself. If there is inflation, then the cause is supposed to be “excessive spending” on the part of the public; the alleged cure is for the government, the self-appointed stabilizer and regulator of the nation’s economy, to step in and force people to spend less, “sopping up their excess purchasing power” through increased taxation. If there is a recession, on the other hand, this has been caused by insufficient private spending, and the cure now is for the government to increase its own spending, preferably through deficits, thereby adding to the nation’s aggregate spending stream.

The idea that increased government spending or easy money is “good for business” and that budget cuts or harder money is “bad” permeates even the most conservative newspapers and magazines. These journals will also take for granted that it is the sacred task of the federal government to steer the economic system on the narrow road between the abysses of depression on the one hand and inflation on the other, for the free-market economy is supposed to be ever liable to succumb to one of these evils.

All current schools of economists have the same attitude. Note, for example, the viewpoint of Dr. Paul W. McCracken, the incoming chairman of President Nixon’s Council of Economic Advisers. In an interview with the *New York Times* shortly after taking office (January 24, 1969), Dr. McCracken asserted that one of the major economic problems facing the new administration is “how you cool down this inflationary economy without at the

same time tripping off unacceptably high levels of unemployment. In other words, if the only thing we want to do is cool off the inflation, it could be done. But our social tolerances on unemployment are narrow.” And again: “I think we have to feel our way along here. We don’t really have much experience in trying to cool an economy in orderly fashion. We slammed on the brakes in 1957, but, of course, we got substantial slack in the economy.”

Note the fundamental attitude of Dr. McCracken toward the economy—remarkable only in that it is shared by almost all economists of the present day. The economy is treated as a potentially workable, but always troublesome and recalcitrant patient, with a continual tendency to hive off into greater inflation or unemployment. The function of the government is to be the wise old manager and physician, ever watchful, ever tinkering to keep the economic patient in good working order. In any case, here the economic patient is clearly supposed to be the subject, and the government as “physician” the master.

It was not so long ago that this kind of attitude and policy was called “socialism”; but we live in a world of euphemism, and now we call it by far less harsh labels, such as “moderation” or “enlightened free enterprise.” We live and learn.

What, then, are the causes of periodic depressions? Must we always remain agnostic about the causes of booms and busts? Is it really true that business cycles are rooted deep within the free-market economy, and that therefore some form of government planning is needed if we wish to keep the economy within some kind of stable bounds? Do booms and then busts just simply happen, or does one phase of the cycle flow logically from the other?

The currently fashionable attitude toward the business cycle stems, actually, from Karl Marx. Marx saw that, before the Industrial

Revolution in approximately the late eighteenth century, there were no regularly recurring booms and depressions. There would be a sudden economic crisis whenever some king made war or confiscated the property of his subject; but there was no sign of the peculiarly modern phenomena of general and fairly regular swings in business fortunes, of expansions and contractions. Since these cycles also appeared on the scene at about the same time as modern industry, Marx concluded that business cycles were an inherent feature of the capitalist market economy. All the various current schools of economic thought, regardless of their other differences and the different causes that they attribute to the cycle, agree on this vital point: That these business cycles originate somewhere deep within the free-market economy. The market economy is to blame. Karl Marx believed that the periodic depressions would get worse and worse, until the masses would be moved to revolt and destroy the system, while the modern economists believe that the government can successfully stabilize depressions and the cycle. But all parties agree that the fault lies deep within the market economy and that if anything can save the day, it must be some form of massive government intervention.

There are, however, some critical problems in the assumption that the market economy is the culprit. For “general economic theory” teaches us that supply and demand always tend to be in equilibrium in the market and that therefore prices of products as well as of the factors that contribute to production are always tending toward some equilibrium point. Even though changes of data, which are always taking place, prevent equilibrium from ever being reached, there is nothing in the general theory of the market system that would account for regular and recurring boom-and-bust phases of the business cycle. Modern economists “solve” this problem by simply keeping their general price and market theory and their business cycle theory in separate, tightly-sealed compartments, with never the twain meeting, much less integrated with each other. Economists, unfortunately, have forgotten that

there is only one economy and therefore only one integrated economic theory. Neither economic life nor the structure of theory can or should be in watertight compartments; our knowledge of the economy is either one integrated whole or it is nothing. Yet most economists are content to apply totally separate and, indeed, mutually exclusive, theories for general price analysis and for business cycles. They cannot be genuine economic scientists so long as they are content to keep operating in this primitive way.

But there are still graver problems with the currently fashionable approach. Economists also do not see one particularly critical problem because they do not bother to square their business cycle and general price theories: the peculiar breakdown of the entrepreneurial function at times of economic crisis and depression. In the market economy, one of the most vital functions of the businessman is to be an “entrepreneur,” a man who invests in productive methods, who buys equipment and hires labor to produce something which he is not sure will reap him any return. In short, the entrepreneurial function is the function of forecasting the uncertain future. Before embarking on any investment or line of production, the entrepreneur, or “enterpriser,” must estimate present and future costs and future revenues and therefore estimate whether and how much profits he will earn from the investment. If he forecasts well and significantly better than his business competitors, he will reap profits from his investment. The better his forecasting, the higher the profits he will earn. If, on the other hand, he is a poor forecaster and overestimates the demand for his product, he will suffer losses and pretty soon be forced out of the business.

The market economy, then, is a profit-and-loss economy, in which the acumen and ability of business entrepreneurs is gauged by the profits and losses they reap. The market economy, moreover, contains a built-in mechanism, a kind of natural selection, that



ensures the survival and the flourishing of the superior forecaster and the weeding-out of the inferior ones. For the more profits reaped by the better forecasters, the greater become their business responsibilities, and the more they will have available to invest in the productive system. On the other hand, a few years of making losses will drive the poorer forecasters and entrepreneurs out of business altogether and push them into the ranks of salaried employees.

If, then, the market economy has a built-in natural selection mechanism for good entrepreneurs, this means that, generally, we would expect not many business firms to be making losses. And, in fact, if we look around at the economy on an average day or year, we will find that losses are not very widespread. But, in that case, the odd fact that needs explaining is this: How is it that, periodically, in times of the onset of recessions and especially in steep depressions, the business world suddenly experiences a massive cluster of severe losses? A moment arrives when business firms, previously highly astute entrepreneurs in their ability to make profits and avoid losses, suddenly and dismayingly find themselves, almost all of them, suffering severe and unaccountable losses? How come? Here is a momentous fact that any theory of depressions must explain. An explanation such as “underconsumption”—a drop in total consumer spending—is not sufficient, for one thing, because what needs to be explained is why businessmen, able to forecast all manner of previous economic changes and developments, proved themselves totally and catastrophically unable to forecast this alleged drop in consumer demand. Why this sudden failure in forecasting ability?

An adequate theory of depressions, then, must account for the tendency of the economy to move through successive booms and busts, showing no sign of settling into any sort of smoothly moving, or quietly progressive, approximation of an equilibrium situation. In particular, a theory of depression must account for

the mammoth cluster of errors which appears swiftly and suddenly at a moment of economic crisis, and lingers through the depression period until recovery. And there is a third universal fact that a theory of the cycle must account for. Invariably, the booms and busts are much more intense and severe in the “capital goods industries”—the industries making machines and equipment, the ones producing industrial raw materials or constructing industrial plants—than in the industries making consumers’ goods. Here is another fact of business cycle life that must be explained—and obviously can’t be explained by such theories of depression as the popular underconsumption doctrine: That consumers aren’t spending enough on consumer goods. For if insufficient spending is the culprit, then how is it that retail sales are the last and the least to fall in any depression, and that depression *really* hits such industries as machine tools, capital equipment, construction, and raw materials? Conversely, it is these industries that really take off in the inflationary boom phases of the business cycle, and not those businesses serving the consumer. An adequate theory of the business cycle, then, must also explain the far greater intensity of booms and busts in the non-consumer goods, or “producers’ goods,” industries.

Fortunately, a correct theory of depression and of the business cycle *does* exist, even though it is universally neglected in present-day economics. It, too, has a long tradition in economic thought. This theory began with the eighteenth century Scottish philosopher and economist David Hume, and with the eminent early nineteenth century English classical economist David Ricardo. Essentially, these theorists saw that another crucial institution had developed in the mid-eighteenth century, alongside the industrial system. This was the institution of banking, with its capacity to expand credit and the money supply (first, in the form of paper money, or bank notes, and later in the form of demand deposits, or checking accounts, that are instantly redeemable in cash at the banks). It was the operations of these

commercial banks which, these economists saw, held the key to the mysterious recurrent cycles of expansion and contraction, of boom and bust, that had puzzled observers since the mid-eighteenth century.

The Ricardian analysis of the business cycle went something as follows: The natural moneys emerging as such on the world free market are useful commodities, generally gold and silver. If money were confined simply to these commodities, then the economy would work in the aggregate as it does in particular markets: A smooth adjustment of supply and demand, and therefore no cycles of boom and bust. But the injection of bank credit adds another crucial and disruptive element. For the banks expand credit and therefore bank money in the form of notes or deposits which are theoretically redeemable on demand in gold, but in practice clearly are not. For example, if a bank has 1,000 ounces of gold in its vaults, and it issues instantly redeemable warehouse receipts for 2,500 ounces of gold, then it clearly has issued 1,500 ounces more than it can possibly redeem. But so long as there is no concerted "run" on the bank to cash in these receipts, its warehouse-receipts function on the market as equivalent to gold, and therefore the bank has been able to expand the money supply of the country by 1,500 gold ounces.

The banks, then, happily begin to expand credit, for the more they expand credit the greater will be their profits. This results in the expansion of the money supply within a country, say England. As the supply of paper and bank money in England increases, the money incomes and expenditures of Englishmen rise, and the increased money bids up prices of English goods. The result is inflation and a boom within the country. But this inflationary boom, while it proceeds on its merry way, sows the seeds of its own demise. For as English money supply and incomes increase, Englishmen proceed to purchase more goods from abroad. Furthermore, as English prices go up, English goods begin to lose

their competitiveness with the products of other countries which have not inflated, or have been inflating to a lesser degree. Englishmen begin to buy less at home and more abroad, while foreigners buy less in England and more at home; the result is a deficit in the English balance of payments, with English exports falling sharply behind imports. But if imports exceed exports, this means that money must flow out of England to foreign countries. And what money will this be? Surely not English bank notes or deposits, for Frenchmen or Germans or Italians have little or no interest in keeping their funds locked up in English banks. These foreigners will therefore take their bank notes and deposits and present them to the English banks for redemption in gold—and gold will be the type of money that will tend to flow persistently out of the country as the English inflation proceeds on its way. But this means that English bank credit money will be, more and more, pyramiding on top of a dwindling gold base in the English bank vaults. As the boom proceeds, our hypothetical bank will expand its warehouse receipts issued from, say 2,500 ounces to 4,000 ounces, while its gold base dwindles to, say, 800. As this process intensifies, the banks will eventually become frightened. For the banks, after all, are obligated to redeem their liabilities in cash, and their cash is flowing out rapidly as their liabilities pile up. Hence, the banks will eventually lose their nerve, stop their credit expansion, and in order to save themselves, contract their bank loans outstanding. Often, this retreat is precipitated by bankrupting runs on the banks touched off by the public, who had also been getting increasingly nervous about the ever more shaky condition of the nation's banks.

The bank contraction reverses the economic picture; contraction and bust follow boom. The banks pull in their horns, and businesses suffer as the pressure mounts for debt repayment and contraction. The fall in the supply of bank money, in turn, leads to a general fall in English prices. As money supply and incomes fall, and English prices collapse, English goods become relatively

more attractive in terms of foreign products, and the balance of payments reverses itself, with exports exceeding imports. As gold flows into the country, and as bank money contracts on top of an expanding gold base, the condition of the banks becomes much sounder.

This, then, is the meaning of the depression phase of the business cycle. Note that it is a phase that comes out of, and inevitably comes out of, the preceding expansionary boom. It is the preceding inflation that makes the depression phase necessary. We can see, for example, that the depression is the process by which the market economy adjusts, throws off the excesses and distortions of the previous inflationary boom, and reestablishes a sound economic condition. The depression is the unpleasant but necessary reaction to the distortions and excesses of the previous boom.

Why, then, does the next cycle begin? Why do business cycles tend to be recurrent and continuous? Because when the banks have pretty well recovered, and are in a sounder condition, they are then in a confident position to proceed to their natural path of bank credit expansion, and the next boom proceeds on its way, sowing the seeds for the next inevitable bust.

But if banking is the cause of the business cycle, aren't the banks also a part of the private market economy, and can't we therefore say that the free market is *still* the culprit, if only in the banking segment of that free market? The answer is No, for the banks, for one thing, would never be able to expand credit in concert were it not for the intervention and encouragement of government. For if banks were truly competitive, any expansion of credit by one bank would quickly pile up the debts of that bank in its competitors, and its competitors would quickly call upon the expanding bank for redemption in cash. In short, a bank's rivals will call upon it for redemption in gold or cash in the same way as do foreigners, except that the process is much faster and would nip any incipient

inflation in the bud before it got started. Banks can only expand comfortably in unison when a Central Bank exists, essentially a governmental bank, enjoying a monopoly of government business, and a privileged position imposed by government over the entire banking system. It is only when central banking got established that the banks were able to expand for any length of time and the familiar business cycle got underway in the modern world.

The central bank acquires its control over the banking system by such governmental measures as: Making its own liabilities legal tender for all debts and receivable in taxes; granting the central bank monopoly of the issue of bank *notes*, as contrasted to deposits (in England the Bank of England, the governmentally established central bank, had a legal monopoly of bank notes in the London area); or through the outright forcing of banks to use the central bank as their client for keeping their reserves of cash (as in the United States and its Federal Reserve System). Not that the banks complain about this intervention; for it is the establishment of central banking that makes long-term bank credit expansion possible, since the expansion of Central Bank notes provides added cash reserves for the entire banking system and permits all the commercial banks to expand their credit together. Central banking works like a cozy compulsory bank cartel to expand the banks' liabilities; and the banks are now able to expand on a larger base of cash in the form of central bank notes as well as gold.

So now we see, at last, that the business cycle is brought about, not by any mysterious failings of the free market economy, but quite the opposite: By systematic intervention by government in the market process. Government intervention brings about bank expansion and inflation, and, when the inflation comes to an end, the subsequent depression-adjustment comes into play.

The Ricardian theory of the business cycle grasped the essentials of a correct cycle theory: The recurrent nature of the phases of the

cycle, depression as adjustment intervention in the market rather than from the free-market economy. But two problems were as yet unexplained: Why the sudden cluster of business error, the sudden failure of the entrepreneurial function, and why the vastly greater fluctuations in the producers' goods than in the consumers' goods industries? The Ricardian theory only explained movements in the price level, in general business; there was no hint of explanation of the vastly different reactions in the capital and consumers' goods industries.

The correct and fully developed theory of the business cycle was finally discovered and set forth by the Austrian economist Ludwig von Mises, when he was a professor at the University of Vienna. Mises developed hints of his solution to the vital problem of the business cycle in his monumental *Theory of Money and Credit*, published in 1912, and still, nearly 60 years later, the best book on the theory of money and banking. Mises developed his cycle theory during the 1920s, and it was brought to the English-speaking world by Mises's leading follower, Friedrich A. von Hayek, who came from Vienna to teach at the London School of Economics in the early 1930s, and who published, in German and in English, two books which applied and elaborated the Mises cycle theory: *Monetary Theory and the Trade Cycle*, and *Prices and Production*. Since Mises and Hayek were Austrians, and also since they were in the tradition of the great nineteenth-century Austrian economists, this theory has become known in the literature as the "Austrian" (or the "monetary overinvestment") theory of the business cycle.

Building on the Ricardians, on general "Austrian" theory, and on his own creative genius, Mises developed the following theory of the business cycle:

Without bank credit expansion, supply and demand tend to be equilibrated through the free price system, and no cumulative booms or busts can then develop. But then government through

its central bank stimulates bank credit expansion by expanding central bank liabilities and therefore the cash reserves of all the nation's commercial banks. The banks then proceed to expand credit and hence the nation's money supply in the form of check deposits. As the Ricardians saw, this expansion of bank money drives up the prices of goods and hence causes inflation. But, Mises showed, it does something else, and something even more sinister. Bank credit expansion, by pouring new loan funds into the business world, artificially lowers the rate of interest in the economy below its free market level.

On the free and unhampered market, the interest rate is determined purely by the "time-preferences" of all the individuals that make up the market economy. For the essence of a loan is that a "present good" (money which can be used at present) is being exchanged for a "future good" (an IOU which can only be used at some point in the future). Since people always prefer money right now to the present prospect of getting the same amount of money some time in the future, the present good always commands a premium in the market over the future. This premium is the interest rate, and its height will vary according to the degree to which people prefer the present to the future, i.e., the degree of their time-preferences.

People's time-preferences also determine the extent to which people will save and invest, as compared to how much they will consume. If people's time-preferences should fall, i.e., if their degree of preference for present over future falls, then people will tend to consume less now and save and invest more; at the same time, and for the same reason, the rate of interest, the rate of time-discount, will also fall. Economic growth comes about largely as the result of falling rates of time-preference, which lead to an increase in the proportion of saving and investment to consumption, and also to a falling rate of interest.



But what happens when the rate of interest falls, not because of lower time-preferences and higher savings, but from government interference that promotes the expansion of bank credit? In other words, if the rate of interest falls artificially, due to intervention, rather than naturally, as a result of changes in the valuations and preferences of the consuming public?

What happens is trouble. For businessmen, seeing the rate of interest fall, react as they always would and must to such a change of market signals: They invest more in capital and producers' goods. Investments, particularly in lengthy and time-consuming projects, which previously looked unprofitable now seem profitable, because of the fall of the interest charge. In short, businessmen react as they would react if savings had *genuinely* increased: They expand their investment in durable equipment, in capital goods, in industrial raw material, in construction as compared to their direct production of consumer goods.

Businesses, in short, happily borrow the newly expanded bank money that is coming to them at cheaper rates; they use the money to invest in capital goods, and eventually this money gets paid out in higher rents to land, and higher wages to workers in the capital goods industries. The increased business demand bids up labor costs, but businesses think they can pay these higher costs because they have been fooled by the government-and-bank intervention in the loan market and its decisively important tampering with the interest-rate signal of the marketplace.

The problem comes as soon as the workers and landlords—largely the former, since most gross business income is paid out in wages—begin to spend the new bank money that they have received in the form of higher wages. For the time-preferences of the public have not *really* gotten lower; the public doesn't *want* to save more than it has. So the workers set about to consume most of their new income, in short to reestablish the old consumer/saving proportions. This means that they redirect the

spending back to the consumer goods industries, and they don't save and invest enough to buy the newly-produced machines, capital equipment, industrial raw materials, etc. This all reveals itself as a sudden sharp and continuing depression in the *producers' goods* industries. Once the consumers reestablished their desired consumption/investment proportions, it is thus revealed that business had invested too much in capital goods and had underinvested in consumer goods. Business had been seduced by the governmental tampering and artificial lowering of the rate of interest, and acted as if more savings were available to invest than were really there. As soon as the new bank money filtered through the system and the consumers reestablished their old proportions, it became clear that there were not enough savings to buy all the producers' goods, and that business had misinvested the limited savings available. Business had overinvested in capital goods and underinvested in consumer products.

The inflationary boom thus leads to distortions of the pricing and production system. Prices of labor and raw materials in the capital goods industries had been bid up during the boom too high to be profitable once the consumers reassert their old consumption/investment preferences. The "depression" is then seen as the necessary and healthy phase by which the market economy sloughs off and liquidates the unsound, uneconomic investments of the boom, and reestablishes those proportions between consumption and investment that are truly desired by the consumers. The depression is the painful but necessary process by which the free market sloughs off the excesses and errors of the boom and reestablishes the market economy in its function of efficient service to the mass of consumers. Since prices of factors of production have been bid too high in the boom, this means that prices of labor and goods in these capital goods industries must be allowed to fall until proper market relations are resumed.

Since the workers receive the increased money in the form of higher wages fairly rapidly, how is it that booms can go on for years without having their unsound investments revealed, their errors due to tampering with market signals become evident, and the depression-adjustment process begins its work? The answer is that booms would be very short lived if the bank credit expansion and subsequent pushing of the rate of interest below the free market level were a one-shot affair. But the point is that the credit expansion is *not* one-shot; it proceeds on and on, never giving consumers the chance to reestablish their preferred proportions of consumption and saving, never allowing the rise in costs in the capital goods industries to catch up to the inflationary rise in prices. Like the repeated doping of a horse, the boom is kept on its way and ahead of its inevitable comeuppance, by repeated doses of the stimulant of bank credit. It is only when bank credit expansion must finally stop, either because the banks are getting into a shaky condition or because the public begins to balk at the continuing inflation, that retribution finally catches up with the boom. As soon as credit expansion stops, then the piper must be paid, and the inevitable readjustments liquidate the unsound over-investments of the boom, with the reassertion of a greater proportionate emphasis on consumers' goods production.

Thus, the Misesian theory of the business cycle accounts for all of our puzzles: The repeated and recurrent nature of the cycle, the massive cluster of entrepreneurial error, the far greater intensity of the boom and bust in the producers' goods industries.

Mises, then, pinpoints the blame for the cycle on inflationary bank credit expansion propelled by the intervention of government and its central bank. What does Mises say should be done, say by government, once the depression arrives? What is the governmental role in the cure of depression? In the first place, government must cease inflating as soon as possible. It is true that this will, inevitably, bring the inflationary boom abruptly to an

end, and commence the inevitable recession or depression. But the longer the government waits for this, the worse the necessary readjustments will have to be. The sooner the depression-readjustment is gotten over with, the better. This means, also, that the government must never try to prop up unsound business situations; it must never bail out or lend money to business firms in trouble. Doing this will simply prolong the agony and convert a sharp and quick depression phase into a lingering and chronic disease. The government must never try to prop up wage rates or prices of producers' goods; doing so will prolong and delay indefinitely the completion of the depression-adjustment process; it will cause indefinite and prolonged depression and mass unemployment in the vital capital goods industries. The government must not try to inflate again, in order to get out of the depression. For even if this reflation succeeds, it will only sow greater trouble later on. The government must do nothing to encourage consumption, and it must not increase its own expenditures, for this will further increase the social consumption/investment ratio. In fact, cutting the government budget will improve the ratio. What the economy needs is not more consumption spending but more saving, in order to validate some of the excessive investments of the boom.

Thus, what the government should do, according to the Misesian analysis of the depression, is absolutely nothing. It should, from the point of view of economic health and ending the depression as quickly as possible, maintain a strict hands off, "*laissez-faire*" policy. Anything it does will delay and obstruct the adjustment process of the market; the less it does, the more rapidly will the market adjustment process do its work, and sound economic recovery ensue.

The Misesian prescription is thus the exact opposite of the Keynesian: It is for the government to keep absolute hands off the

economy and to confine itself to stopping its own inflation and to cutting its own budget.

It has today been completely forgotten, even among economists, that the Misesian explanation and analysis of the depression gained great headway precisely during the Great Depression of the 1930s—the very depression that is always held up to advocates of the free market economy as the greatest single and catastrophic failure of *laissez-faire* capitalism. It was no such thing. 1929 was made inevitable by the vast bank credit expansion throughout the Western world during the 1920s: A policy deliberately adopted by the Western governments, and most importantly by the Federal Reserve System in the United States. It was made possible by the failure of the Western world to return to a genuine gold standard after World War I, and thus allowing more room for inflationary policies by government. Everyone now thinks of President Coolidge as a believer in *laissez-faire* and an unhampered market economy; he was not, and tragically, nowhere less so than in the field of money and credit. Unfortunately, the sins and errors of the Coolidge intervention were laid to the door of a non-existent free market economy.

If Coolidge made 1929 inevitable, it was President Hoover who prolonged and deepened the depression, transforming it from a typically sharp but swiftly-disappearing depression into a lingering and near-fatal malady, a malady “cured” only by the holocaust of World War II. Hoover, not Franklin Roosevelt, was the founder of the policy of the “New Deal”: essentially the massive use of the State to do exactly what Misesian theory would most warn against—to prop up wage rates above their free-market levels, prop up prices, inflate credit, and lend money to shaky business positions. Roosevelt only advanced, to a greater degree, what Hoover had pioneered. The result for the first time in American history, was a nearly perpetual depression and nearly permanent

mass unemployment. The Coolidge crisis had become the unprecedentedly prolonged Hoover Roosevelt depression.

Ludwig von Mises had predicted the depression during the heyday of the great boom of the 1920s—a time, just like today, when economists and politicians, armed with a “new economics” of perpetual inflation, and with new “tools” provided by the Federal Reserve System, proclaimed a perpetual “New Era” of permanent prosperity guaranteed by our wise economic doctors in Washington. Ludwig von Mises, alone armed with a correct theory of the business cycle, was one of the very few economists to predict the Great Depression, and hence the economic world was forced to listen to him with respect. F. A. Hayek spread the word in England, and the younger English economists were all, in the early 1930s, beginning to adopt the Misesian cycle theory for their analysis of the depression—and also to adopt, of course, the strictly free-market policy prescription that flowed with this theory. Unfortunately, economists have now adopted the historical notion of Lord Keynes: That no “classical economists” had a theory of the business cycle until Keynes came along in 1936. There *was* a theory of the depression; it was the classical economic tradition; its prescription was strict hard money and *laissez-faire*; and it was rapidly being adopted, in England and even in the United States, as the accepted theory of the business cycle. (A particular irony is that the major “Austrian” proponent in the United States in the early and mid-1930s was none other than Professor Alvin Hansen, very soon to make his mark as the outstanding Keynesian disciple in this country.)

What swamped the growing acceptance of Misesian cycle theory was simply the “Keynesian Revolution”—the amazing sweep that Keynesian theory made of the economic world shortly after the publication of the *General Theory* in 1936. It is not that Misesian theory was refuted successfully; it was just *forgotten* in the rush to climb on the suddenly fashionable Keynesian bandwagon. Some

of the leading adherents of the Mises theory—who clearly knew better—succumbed to the newly established winds of doctrine, and won leading American university posts as a consequence.

But now the once arch-Keynesian London *Economist* has recently proclaimed that “Keynes is Dead.” After over a decade of facing trenchant theoretical critiques and refutation by stubborn economic facts, the Keynesians are now in general and massive retreat. Once again, the money supply and bank credit are being grudgingly acknowledged to play a leading role in the cycle. The time is ripe—for a rediscovery, a renaissance, of the Mises theory of the business cycle. It can come none too soon; if it ever does, the whole concept of a Council of Economic Advisors would be swept away, and we would see a massive retreat of government from the economic sphere. But for all this to happen, the world of economics, and the public at large, must be made aware of the existence of an explanation of the business cycle that has lain neglected on the shelf for all too many tragic years.





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