

The Essential  
**AUSTRIAN ECONOMICS**



by Christopher J. Coyne and Peter J. Boettke





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## Dedication

To our teachers, who introduced us to the ideas of Austrian economics.

## Chapter 1

# The History of Austrian Economics and Marginal Thinking

... man, with his needs and his command of the means to satisfy them, is himself the point at which human economic life both begins and ends.

—Carl Menger (1871/1981), *Principles of Economics*: 108.

The origin of the Austrian School of economics is the publication of Carl Menger's *Principles of Economics* in 1871. Menger, based in Austria, along with William Stanley Jevons in England, and Léon Walras in Switzerland, are considered the co-founders of the “marginal revolution” in economics. The marginal revolution was a paradigm shift from the established labour theory of value to the marginal utility theory of value. The labour theory of value held that the value of a commodity is a function of the labour required to produce the item. The marginal revolutionists, in contrast, argued that value is not based on the amount of labour expended, but rather reflects how useful people perceive the commodity to be in satisfying their ends.

This revolution had radical implications for the way economists understood the world. A computer does not command a high price because it took a certain number of hours to produce. Instead, it is that consumers value the computer for its usefulness in achieving their goals that determines its high price. The consumer valuation of the final computer, in turn, is what drives the demand for the inputs—labour and resources—used to produce it. Consumer valuations, and not the amount of effort, is what determines prices. But what determines consumer valuations?

This is a question that had long perplexed social scientists. It is captured by what is known as the water-diamond paradox. At the core of this paradox

is the following question: Why do consumers value diamonds, which are a luxury item, more than water, which is essential for life? By introducing the concept of marginal utility, Menger and his co-revolutionaries were able to resolve this paradox.

In most contexts, people do not make either-or decisions. That is, people do not typically choose between having only water, and nothing else, or only diamonds. Instead, they are engaged in choosing among various quantities of water and diamonds. Instead of treating the choice as either-or, the proper way to frame the choice is as a marginal decision in which the individual chooses whether to consume an additional unit of water or an additional diamond.

Think about how you use water. Certainly, you consume some water—which is essential to human life—to quench your thirst. But water is so abundant that we also use it to bathe, water our lawns, and wash our automobiles. Water’s abundance means that the additional (that is, marginal) use value is low, which is reflected in the price we are willing to pay for a marginal unit of water. If water suddenly became much more scarce, perhaps as a result of a drought, we would reduce our use on the lowest-valued margin—likely watering our lawns or washing our cars—before reducing our personal consumption of water as a means to quench our thirst. This increased scarcity would be reflected in a higher price of water which would, in turn, induce people to refrain from pursuing its lowest-valued use.

Now consider diamonds. Diamonds tend to be scarce, and their main use is ornamental. As such, the price that most people are willing to pay for a marginal diamond is high. Think about what would happen if diamonds were as plentiful as dirt: the use value of diamonds would be low as would the price of the marginal diamond. As illustrated by its power to resolve the water-diamond paradox, marginal utility became the foundation of a new approach to understanding social action.

The labour theory of value, however, was not Menger’s only target in his *Principles*. He also was engaging the German Historical School, which was the dominant source of economic thinking throughout the German-speaking world. The German Historical School held that economic science is incapable of producing universal principles that apply across time and geographic space. Because of this, they held that the best that economists can do is to engage in the historical study of particular circumstances, with the hope of identifying some particular patterns that are specific to the context being studied.



In contrast to this view, Menger argued that universal economic laws apply across contexts, and he did so using marginal utility analysis as a foundation. Those in the German Historical School took issue with the claims by Menger and his colleagues—Eugen Böhm-Bawerk and Friedrich Wieser—about the possibility of universal theory and labeled them the “Austrian School” because of their academic positions at the University of Vienna. The label stuck.

Subsequent generations of Austrian scholars built on the works of Menger, Böhm-Bawerk, and Wieser. Following World War I, Ludwig von Mises and F.A. Hayek assumed the intellectual leadership of the Austrian School. Mises (*Socialism: An Economic and Sociological Analysis*, 1922) and Hayek (*Individualism and Economic Order*, 1948) engaged in an important debate with socialist thinkers over the best means of organizing economic activity to produce wealth. Hayek also engaged in a scholarly debate with John Maynard Keynes over macroeconomic issues and the viability of the capitalist system absent significant government involvement.

Beyond these two episodes, both thinkers made a number of significant contributions. Mises contributed to monetary and business cycle theory (*The Theory of Money and Credit*, 1912); economic methodology (*Epistemological Problems of Economics*, 1933; *Theory and History*, 1957; *The Ultimate Foundations of Economic Science*, 1962); the economics of government bureaucracies (*Bureaucracy*, 1944); and government interventionism (*A Critique of Interventionism*, 1929; *Omnipotent Government*, 1944). His magnum opus, *Human Action* (1949), systematically integrated much of this work in a comprehensive treatise on economic analysis.

Hayek contributed to monetary theory, capital theory, and business cycle theory (*Prices and Production*, 1931; *Monetary Theory and the Trade Cycle*, 1933; *The Pure Theory of Capital*, 1941); politics and political theory (*The Road to Serfdom*, 1944; *The Constitution of Liberty*, 1960); and legal theory (*Law, Legislation and Liberty*, three volumes, 1973–1979). In 1974, Hayek was awarded the Nobel Prize (The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel) for his work on monetary economics and business cycles.

Since the 1930s, no economists from any Austrian university have become leading figures in the Austrian School of economics. Following the awarding of the Nobel Prize to Hayek in 1974, there was a revival of interest in the ideas of the Austrian School. The major figures in this revival were Israel Kirzner, Murray Rothbard, and Ludwig Lachmann. These scholars continued to advance the ideas first set forth by Menger.

Kirzner made important contributions to capital theory (*An Essay on Capital*, 1966) and the theory of the market process and entrepreneurship (*Market Theory and the Price System*, 1963; *Competition and Entrepreneurship*, 1973; *Perception, Opportunity and Profit Studies in the Theory of Entrepreneurship*, 1985; *The Meaning of Market Process: Essays in the Development of Modern Austrian Economics*, 1992).

Rothbard made contributions to market structure theory, public goods theory, monetary theory, welfare economics, and the dynamics of government intervention into the market (*Man, Economy, and State*, 1962; *Power and Market: Government and the Economy*, 1970; *The Logic of Action*, 1997). He also engaged in scholarship applying Austrian business cycle theory (*The Panic of 1819: Reactions and Policies*, 1962; *America's Great Depression*, 1973).

Lachmann developed Austrian capital theory by incorporating subjective expectations and an appreciation for the heterogeneous nature of capital (*Capital and Its Structure*, 1956; *Capital, Expectations and the Market Process*, 1977). He also analyzed the role that institutions play in coordinating people in economic and social life (*The Legacy of Max Weber*, 1971) and the importance of microfoundations for macroeconomic analysis (*Macro-economic Thinking and the Market Economy*, 1973).

Subsequent generations of Austrian scholars have further developed and extended the insights of these thinkers. The purpose of this book is to present an overview of the key tenets of Austrian economics. In order to do so we draw upon and synthesize the insights from the aforementioned thinkers to present and discuss a set of eight topics that capture the core elements of Austrian economics.

## Chapter 2

# Methodological Principles

The object of investigation is man in a condition of activity. Hence our mind ratifies every accurate description of the processes of his consciousness by the affirmative declaration that such is the case, and by the compelling feeling that it must be so necessarily ... In these cases we, each of us, hear the law pronounced by an unmistakable inner voice. What unequalled advantage to the naturalist, could he, too, appeal to the voice of nature for their confirmation of the laws prevailing in the organic and inorganic world! Where the natural sciences can only offer proof, the theory of economics can persuade; it can enlist the unqualified inner consent of readers.

—Friedrich von Wieser (1927/2003), *Social Economics*: 8–9.

In recasting economics along the lines of marginal utility analysis, Carl Menger provided a unique set of methodological principles that are at the foundation of what makes Austrian economics distinct. These principles are grounded in the core purpose of economics, which is the intelligibility of the world in which we live. Further, since their goal is to understand the human world, economists must render the events under examination intelligible in terms of purposeful human action. This leads to the recognition that only individuals face decisions and make choices, though undoubtedly conditioned by their social surroundings. Therefore, social phenomena are only rendered intelligible if the economist traces those phenomena back to individual decisions. This is the concept of “methodological individualism,” which holds that people, with their unique purposes and plans, are the beginning of all economics analysis.

Groups and organizations, which consist of people, do not engage in choice and do not have purposes and plans absent the individuals that constitute the group. Charlotte can choose to be a member of a group, and

she may even cede subsequent decision-making power to another member of the group. However, in order to understand the group, and Charlotte's membership in that group, we must start with Charlotte's aims and how her decision to join the group fit with those goals. This involves starting with the individual choosers and tracing out the implications of their decisions in light of their desired ends.

These core principles—methodological individualism and purposive behaviour—have important implications for the way that we engage in economic analysis. We are interested in explaining a variety of complex phenomena—for example, exchange, price formation—and to do so we appreciate that these phenomena are composed of the actions of numerous individual actors. It is only by appreciating the purposes and plans of individuals that we can hope to make sense of the world. The theorems of economics—that is, the concepts of marginal utility and opportunity cost, and the principle of demand and supply—are all derived from reflection upon purposefulness in human action. Economic theory does not represent a set of testable hypotheses, but rather a set of conceptual tools that aid us in reading and understanding the complexities of the empirical world.

This is fundamentally different from the scientific method employed in the natural sciences. Following the methods of the natural sciences, for example, one could develop a “scientific” explanation of a man placing pieces of paper in raised boxes located at the curb. At 3:30 pm every afternoon, the scientist observes that a man in a uniform moves from house to house putting pieces of paper in the little boxes that sit in front of these houses. One could develop a testable hypothesis and make point predictions concerning this data, that is, “at 3:30 pm this man in a blue suit will place paper in the little boxes that are located on the street in front of the different homes.” The scientist can then “test” his hypothesis against the data derived from observation. The hypothesis is then either rejected or, for the moment, fails to be rejected.

What is unique about the human sciences, as opposed to the physical sciences, is that such an explanation would miss the essential point of the phenomenon under study. The human scientist can assign purpose to the phenomena under discussion. In fact, she must assign human purpose if she wishes to render those phenomena under investigation intelligible. We can understand that paper is not just being stuffed into boxes for no reason, but rather that

a postman is delivering mail to individuals who reside at specific addresses. This understanding is available because the human scientist can rely upon the knowledge of ideal types of other human beings.

We know some human beings because of our daily face-to-face relations with them—for example, friends, family, co-workers. Other humans we know through the functions they perform or beliefs they supposedly hold—for example, “postman,” “policeman,” “liberal.” The majority of other people, however, we simply know in anonymity as “human”—that is, beings who freely choose and strive to obtain their goals by arranging and rearranging the means available. We can understand the purposeful behaviour of “the other” because we, ourselves, are human. This knowledge, referred to as “knowledge from within,” is unique to the human sciences, and it creates fundamental issues of analysis when it is eliminated by importing the methods of the natural sciences to the social sciences to create “social physics.”

While it was desirable to eliminate anthropomorphism—that is, attributing human behaviour to animals or objects—from the study of nature, it would be completely undesirable to eliminate humanness—the purposes, plans, and imperfections of people—from the study of human phenomena. Such an exercise results in the mechanomorphism of the human sciences—that is, attributing mechanical behaviour to creative, choosing human subjects. In such a situation, economics is no longer a human science as we end up talking about the economic behaviour of robots and not of human beings.

For Austrian economists, the subjective nature of human beings permeates all aspects of economics. The “facts” of the human sciences are not objective, as in the natural sciences, but rather consist of how people perceive the world. All phenomena are filtered through the human mind. This understanding distinguished Menger from his co-revolutionaries (Jevons and Walras) in the marginal revolution. All three thinkers appreciated the idea of marginalism and the role of marginal utility. But Menger stressed that the evaluations of the desired ends, as well as the determination of the best means to achieve those ends, are uniquely subjective to the individual chooser. This has important implications that differentiate Austrian economists from many of their colleagues in economics.

In the wake of the marginal revolution, most economists agreed that value (the demand side of the market) is subjective. However, many held that

production (the supply side of the market) is determined by objective conditions. In this vein, the economist Alfred Marshall likened the market (supply and demand) to the two blades of a scissor. Just as both scissor blades cut a piece of paper, so too do subjective value and objective costs determine the market price. This view of the market, however, overlooks the subjective nature of costs, which can be understood as follows.

When engaging in choice over alternative courses of action, a person must necessarily choose one path of action over another. If Cordelia chooses to eat, she cannot pursue her next favoured alternative of taking a nap. The trade-offs associated with choosing among alternatives leads to one of the main concepts in economics—opportunity cost. The term “opportunity cost” refers to the value of the highest-valued foregone alternative associated with taking a specific action. At each moment of choice, the individual chooser weighs the expected benefits of one course of action against the expected benefits of other courses of action (the expected benefits of the next best alternative is the same as the cost foregone). These expected benefits are filtered through the human mind, meaning they are subjective to the individual chooser. Moreover, since the expected benefits of foregone alternatives are never experienced, the subjective opportunity cost is purely in the mind of the actor and is unknowable to the outside observer. It is indeed true, as Marshall noted, that both blades of a scissor cut the piece of paper. In economic matters involving human beings, however, the blades of both demand and supply are determined by people’s subjective valuations.

For Menger, and those who followed in his footsteps, subjectivism was central to the study of economic phenomena. Menger agreed with his corevolutionaries that individual choices are made on the margin by all economic actors. But he, in contrast to Jevons and Walras, emphasized the subjective nature of the entire decision-making process. Acts of choice—from ranking which ends to pursue, to choosing the means to achieve the desired ends—are grounded in the subjective assessments of individuals. Moreover, this series of choices is open-ended, which means that through time people are learning what ends to pursue and the most effective ways to achieve those ends. As a result, Austrian economists place an emphasis on understanding the process of discovery and learning that takes place through time.

Another foundational principle of Austrian economics is the adoption of the means-ends framework. This entails taking ends as given and focusing on whether the means proposed to achieve the desired ends are suitable. This

approach has a long history and revolves around the nature of economics as a science. In the nineteenth century, economists associated with the German Historical School embraced the connection between economic analysis and active advocacy for specific political outcomes. From the perspective of the German historicists, the value of economics was precisely that it enabled advocacy for desired outcomes. Max Weber, one of the founding fathers of sociology, offered an alternative position.

Weber argued that, for social science to be scientific, the practitioner had to draw a clear line between analysis and advocating for particular positions or advancing personal value judgments. The Weberian doctrine of *Wertfreiheit*—“value freedom”—was adopted by Mises as a foundational principle of what it meant to do economic science. This doctrine makes sense in light of the prior methodological principles. The adoption by Austrian economists of methodological individualism and purposive action places emphasis on the logic of choice regarding the use of scarce means to achieve desired ends. From the perspective of economics as a science, the ethical content of the ends is irrelevant as is the personal ethical or political positions of the economic analyst.

An economist may be tasked, for example, with studying whether a rent control policy is an effective means of increasing affordable housing for the least well-off in society. The analyst can use the tools of economics to show the perverse effects of such a policy: a housing shortage, a reduction in the supply of future housing compared to a situation without rent control, a reduction in the quality of existing houses, the reduction in the cost of landlords engaging in non-monetary discrimination. In this case, the economist has used the scientific tools of economics to show that the results of policy will be undesirable in terms of the ends desired by the policymakers. This is a bad policy, not because the ends of helping the least well-off is bad or because the economist has a personal dislike for rent control policies, but rather because the policy of rent control is an ineffective means to achieve the stated end of helping the most disadvantaged.

The adoption of the doctrine of *Wertfreiheit* allows for the operation of a distinct science of economics, separate from political advocacy or personal bias. While the science of economics is value free, it can be used to inform policy. For example, as we will discuss in a subsequent chapter, the process of exchange and competition under a regime of private property rights is what enables people to engage in the discovery that is at the foundation of improvements in human well-being. This insight can be used to inform policies related to economic development.

Economists can communicate their scientific findings to the public and policymakers, just as medical scientists might communicate the latest findings on research regarding the causes and known cures of cancer. In each case, the respective scientists are not involved in advocacy or in making personal value judgments, but instead are engaged in communicating the findings of their scientific explorations to those whom they believe will find the information of use. In this regard, economic science plays an important role in human well-being by providing crucial insight into the operation of the economic system and into the efficacy of various policies for achieving the desired ends of citizens. Appreciating the subtleties of the *Wertfreiheit* principle is important for avoiding the common mistake of confusing the scientific analysis of policy, and the communication of these findings, with biased advocacy grounded in the personal values of the analyst.



## Chapter 3

# Economic Calculation

The fundamental objection advanced against the practicability of socialism refers to the impossibility of economic calculation. It has been demonstrated in an irrefutable way that a socialist commonwealth would not be in a position to apply economic calculation ... A socialist management of production would simply not know whether or not what it plans and executes is the most appropriate means to attain the ends sought. It will operate in the dark, as it were. It will squander the scarce factors of production both material and human (labour). Chaos and poverty for all will unavoidably result.

—Ludwig von Mises (1922/1981), *Socialism*: 535.

Several years ago, Thomas Thwaites, an inventor, undertook the “Toaster Project” in which he attempted to build a simple electric toaster from scratch. To begin, he purchased the cheapest toaster available at a local store. He then deconstructed the toaster to understand the parts that he would need to build his own. Thwaites identified over 400 parts and realized that building the toaster required copper, iron, nickel, mica, and plastic, among other materials. He began by going to mines to obtain the necessary raw materials. After extensive travel and effort, he acquired the necessary resources to construct his toaster. He then shaped these materials into the various components for the toaster and created a plastic mold for the toaster body. Upon plugging the completed (and very ugly!) toaster into an electrical outlet, it shorted out in a matter of seconds. The Toaster Project illustrates the marvel of coordination that takes place to produce goods that most of us take for granted. How does this marvel operate? We will be exploring the answer to this question over the next several chapters. Here we begin with the concept of economic calculation.

In order to understand economic calculation, we need to start with some basics. We live in a world of scarcity because human desires are greater than the resources available to fulfill those desires. We all have a finite number of hours in the day and limited resources at our disposal to accomplish our desired ends. A key economic issue is how decisions are to be made about how scarce resources will be allocated among competing uses. Investing time and resources to build a toaster means that those same resources cannot be used for other purposes. This illustrates how scarcity necessitates choice and, in turn, trade-offs since a decision to use scarce resources in one way prevents them from being used in another way.

These basic, but crucial, insights yield several important questions when deciding about the use of scarce resources to produce goods and services. Should a good or service be provided at all? If the answer is “yes,” in what quantities and quality? Finally, what is the least-cost means of producing the good or service so that scarce resources are not wasted? These questions, which constitute the “economic problem,” were at the center of an important debate that took place in the economics profession in the 1920s and 1930s.

During what became known as the “socialist calculation debate,” Ludwig von Mises and F.A. Hayek engaged in an intellectual debate over the feasibility of socialism as a means of economic organization. Socialist thinkers argued that advanced material production could be achieved through central economic planning while avoiding the various ills of capitalism—market failure, economic downturns, unemployment. For the first wave of socialist thinkers, central planning involved the abolition of money and property rights in the means of production. In place of markets, comprehensive economic planning by a government agency would determine what was to be made, how it was to be produced, and how it was to be distributed.

Mises challenged this vision by arguing that rational economic calculation under socialism was impossible in an advanced industrial economy. Here is why. Economic calculation is the ability of economic actors to determine the expected value added of a potential use of a scarce resource. By comparing the expected value across potential alternatives, decision-makers are able to gauge which activities will have the highest value from the perspective of consumers. Judging the expected value across alternatives requires market-determined prices, which capture the relative scarcity of resources while allowing for a common unit for comparison. Mises argued that without property rights in the

means of production, which the socialists wanted to abolish, there could be no economic calculation because there would be no money prices. His argument proceeded in three steps.

First, without private ownership of the means of production, a market for the means of production would not exist. You cannot have voluntary trade without the ownership of resources that allows for the exchange of those resources by owners. Second, without this market, there would not be money prices for the means of production. Monetary prices, which arise through market trade, are exchange ratios that capture the opportunity cost of a resource. If a cup of coffee is \$1 and a bottle of soda is \$2, this means that the price of a soda is two cups of coffee. By providing a common unit for comparison across goods and services, money prices allow people throughout the economy to judge the opportunity cost, or trade-off, of engaging in one course of action over another. Finally, without money prices for the means of production rational economic calculation is not possible because there is no way for decision-makers to judge the expected value added of alternative courses of action.

Money prices, according to Mises, emerge as the unintended outcome of the voluntary interaction of a multitude of individuals pursuing their separate and often conflicting plans in a market setting characterized by private ownership allowing for exchange. The prices that emerge in the market convey general knowledge about the relative scarcities of particular goods, and thus serve as “aids to the human mind” for calculating how resources should be used. In the absence of a market for the means of production, Mises asked, how would the Central Planning Board know which projects were economically feasible and which were not?

To provide a specific example, how would planners know whether or not to use platinum to construct railroad tracks? Platinum, after all, is technologically feasible as an input to construct railways. In a market system, economic decision-makers responsible for constructing the railroad would look at the price of platinum, which captures its relative scarcity, and attempt to gauge whether they expected to make a profit given the cost of the inputs (platinum being one). Given the high price of platinum relative to alternatives such as steel, the decision-maker would determine that it does not make sense to construct the rails out of platinum. In this way, the market price for platinum and other inputs inform decision-makers about the best use of scarce inputs across a wide array of technologically feasible alternatives. Abolishing

prices—through the joint abolition of property rights and money—would mean that planners would be unable to determine whether platinum or some other good should be used to construct railroad tracks. The result would be economic chaos in contrast to the rational order promised by proponents of the socialist system.

The socialists took Mises’s critique seriously and revised their vision. The result was a model of “market socialism,” offered by Oskar Lange and Abba Lerner, which sought to maintain the desirable features of the socialist system while addressing the critiques raised by Mises. The market socialist model included the use of money and allowed for a free market in final consumer goods and in labour markets. The means of production would still be nationalized. A Central Planning Board would be responsible for providing provisional (“shadow”) prices for inputs to firms. Based on these provisional prices, firms would be instructed to select the combination of inputs that minimized the cost of producing the level of outputs that maximized profits. But how were firms to know this level of output?

The Central Planning Board would instruct firms to follow the dictates of the perfectly competitive model by setting their prices equal to the marginal costs of production and to produce those levels of output that minimize average costs. Following this rule would, in principle, lead to efficient outcomes just as in the model of perfect competition. Efficiency here refers to both allocative efficiency—where all resources are allocated to their highest-valued uses across society—and productive efficiency—where goods and services are produced at the lowest possible costs.

The market socialists were aware that the Central Planning Board might select the incorrect provisional prices—that is, prices that did not reflect the true underlying scarcity. They argued, however, that this would not pose a problem because adjustments could be made on a trial-and-error basis based on inventories that would be observable to the planning board. Just as markets tended to correct for surpluses by putting downward pressure on prices, so too could the Central Planning Board by adjusting prices in the face of excess inventories. Similarly, just as markets respond to shortages with increases in prices, so too would planners who would dictate higher prices in the face of a lack of inventory. According to the market socialists, this process would mimic, if not exceed, the efficiency of markets while maintaining the economic, social, and political goals of socialism.

It is here that F.A. Hayek entered the debate. The market socialists, Hayek argued, were preoccupied with a static notion of equilibrium where all relevant economic knowledge was given, known, and frozen. Only in a state of final equilibrium, where prices are known and fixed, could firms set a price equal to marginal cost and minimize average costs as dictated by the market socialist model. Hayek argued that, instead of assuming that this information existed, focus must be on the process through which this knowledge emerges. This process involves experimentation and contestation in an open-ended system. There can be no static, fixed equilibrium for two reasons. The first is human error, which leads to opportunities for reallocating resources through the discovery of mistakes. The second is that market conditions are constantly evolving, which makes prior equilibrium conditions irrelevant. Even if some stable equilibrium were obtained, it would be fleeting as conditions changed. It is only by allowing decentralized people to participate in an ongoing process of discovery that the knowledge necessary to make rational economic decisions emerges. These numerous discoveries lead to the emergence of knowledge regarding not only what goods and services are desired by consumers, but also the most effective techniques to produce these outputs in a cost-minimizing manner.

The problems inherent with market socialism, according to Hayek, were not a matter of placing smarter people in charge or in developing new computational techniques to gather more information. Instead, the issue was that the economic knowledge necessary for coordination is dispersed, tacit, and emergent. This means that the knowledge used by people to coordinate their economic affairs cannot exist outside the context within which they are embedded. The market socialism model left no space for the very activity that generated the knowledge that was necessary for planners to accomplish their stated ends of advanced material production. As such, Hayek concluded, the model failed to address the dynamic problem that planning would have to confront in practice once the market socialism system was implemented.

Together, Mises's and Hayek's arguments against the variants of socialist planning emphasized the importance of private property as a prerequisite for economic calculation. Economic calculation serves as a central guide to coordinating economic activity in an advanced material economy. Intervention into the market system, therefore, serves to attenuate economic knowledge and the ability of people to rely on economic calculation as a guide in deciding how to use scarce resources.

As the socialist calculation debate entered the 1930s, most economists viewed Mises and Hayek as having lost the debate to Lange and Lerner regarding the feasibility of socialism. There was a widespread belief among economists that the revised model of market socialism could outperform the capitalist alternative. Mises and Hayek held a different view of the outcome of the debate. They believed that in re-introducing money and markets in their revised model, the market socialists had conceded the fundamental point of the debate about the centrality of the price system for economic coordination. In addition, they believed that the market socialists had fundamentally confused equilibrium end states with the process of exchange and competition that produces a tendency toward coordination.

Over time, the professional assessment of the Mises-Hayek critique of socialism shifted. This was the result of additional scholarship clarifying the theoretical issues associated with the socialist calculation debate (Lavoie, *Rivalry and Central Planning*), as well as the practical issues that real-world socialist economies faced in the 1980s. The practical struggles of socialist economies led to a reconsideration of the issues first raised by Mises and Hayek about the fundamental difficulties with economic planning and vindicated the relevance of their arguments against attempts to use central planning to direct economic activity.

## Chapter 4

# Capital and the Structure of Production

Heterogeneity of Capital means heterogeneity in use; Heterogeneity in use implies Multiple Specificity; Multiple Specificity implies Complementarity; Complementarity implies Capital Combinations; Capital Combinations form the elements of *the Capital Structure*. We are living in a world of unexpected change; hence capital combinations, and with them the capital structure, will be ever changing, will be dissolved and re-formed. In this activity we find the real function of the entrepreneur.

—Ludwig Lachmann (1956), *Capital and Its Structure*: 12–13.

Producing the toaster discussed at the beginning of the previous chapter involved the combination of over 400 inputs. As the Toaster Project illustrated, this involves significant coordination across both time and geographic space. In the previous chapter, we discussed the role that economic calculation plays in coordinating people’s economic activity. This chapter builds on that foundation by exploring the unique nature of inputs, or capital goods, necessary to produce final consumer goods. Beginning with Carl Menger’s work in 1871, Austrian economists have emphasized the unique characteristics of capital, which refers to goods that are valued because of their contribution to producing subsequent consumer goods.

In his *Principles of Economics*, Menger presented production as a sequential process that involved capital goods (what he called “goods of a higher order”), which are combined to produce final consumer goods (what he called “goods of the first order”). Different capital goods fit into the structure of production depending where they fall in the sequential process of producing final goods.

The lowest-order capital goods (those directly prior to the production of the final consumer good) would be second-order goods. Those immediately prior to that would be third-order goods, and so forth through every step of production.

Continuing with our toaster example, the initial mining of the copper, iron, and nickel would be the capital good of the highest order. The transformation of these goods into the various elements used in the internal workings of the toaster would be lower-order goods. The process of fitting the toaster body over these internal elements, which is the final stage of production, would constitute the second-order capital good. The final toaster would be the first-order or consumer good.

Menger's taxonomy of capital goods captured the essential role of time in production. The process of producing consumer goods occurs through time as various capital goods are coordinated to yield a final output. This time-consuming process of production is necessary for economic progress. Using their creativity, people realize that they can forgo direct consumption of higher-order goods today and instead use them as inputs into a good that will not be produced until some point in the future.

Consider a basic example to illustrate this point. It is possible for people to fish using their hands or a stick as a spear. These methods will certainly yield some fish that can be consumed. Alternatively, they can forgo fishing today and invest their time and resources in constructing a net that will yield even more fish in the future. This process of production takes time and requires people to forgo the consumption of resources in the present (fishing today by hand or with a spear) for a payoff in the future. This same logic applies to the production of almost all goods and services in an advanced economy that require forgone resources and time to produce.

In addition to the central role of time, Menger's deep appreciation of subjective value is also evident in his treatment of capital. In his view, the value of capital goods is derived from the expected value of the lower-order goods they aid in producing. That is, the value of capital goods is not inherent in the goods themselves, but instead is derived from the lower-order goods in the structure of production. Raw materials do not have inherent objective value, but instead derive their value from what they contribute to the production of other, value-added capital goods in the structure of production. These lower-order goods likewise derive their value from their contribution to the production of the final



consumer good. What ultimately drives this process is the expected value of the final consumer goods (the first-order goods) as determined by consumers. On the market, these subjective valuations are captured in the market prices of capital goods as discussed in the prior chapter on economic calculation.

Taking Menger's framework as a foundation, Ludwig Lachmann further developed the Austrian understanding of capital. He emphasized that capital was characterized by heterogeneity, multiple specificity, and complementarity. Heterogeneity implies that capital goods are different. This might seem obvious, but standard economic theory treats capital as a homogeneous blob that can be used interchangeably and does not require any kind of careful planning or coordination through time. If capital goods were indeed homogeneous, they could be used interchangeably to produce whatever final products consumers desire. From this perspective, capital is analogous to a ball of Play-Doh®. The same capital can be shaped into whatever output is desired by the designer. And if mistakes are made, capital resources can be reallocated quickly and with minimal cost by quickly reshaping the ball of Play-Doh®.

Scholars working in the Austrian tradition, in contrast, emphasize that capital is not homogeneous. All capital is not the same and cannot be used interchangeably. A pair of pliers is not the same thing as a pickup truck. Each capital good can be used to achieve different purposes. A pair of pliers could not tow a trailer and a pickup truck cannot be used to twist a piece of wire. Based on their unique physical characteristics, it is more accurate to think of capital as LEGO®s rather than a ball of homogeneous Play-Doh®. In order to achieve the desired production plan of building a set of LEGO®, specific unique pieces must be combined in a certain temporal order. If a mistake is made along the way, it is costly because individual LEGO® pieces need to be carefully removed and specific pieces need to be inserted to correct for the error to achieve the desired production plan. This is the situation that characterizes a complex, advanced economy.

Appreciating the heterogeneity of capital is also important because production plans vary from one individual to the next. What is considered a capital good and where it fits into the production plan varies from person to person. One person might consume an egg, which would make it a first-order consumption good. Another person might use the egg as an input into baking a cake, making the egg a capital good. A smart phone might be used by one person to play games—a consumption good—and by another person to conduct

business—a capital good. The idea that the same good can be used by different people for different purposes refers to heterogeneity in use, which reinforces the idea that whether something is a capital good depends on how people view the good as fitting into their broader plans and goals. This suggests that there is no fixed and pre-defined stock of capital since whether something is capital depends on how individuals subjectively perceive its use.

In addition to being heterogeneous, each individual capital good can itself be employed in multiple potential uses. A pickup truck can be used not only to tow a trailer, but also to carry cargo or to plow a snow-covered street. Likewise, a pair of pliers can be used not only for electrical work, but also for carpentry or jewelry making. This illustrates the multi-specific nature of capital, which means that heterogeneous capital has many, albeit limited, uses. Economic actors must determine the best use of these scarce resources from an array of competing alternatives.

The heterogeneity and multi-specificity of capital goods imply that capital goods are complementary to one another and must be used in capital combinations to achieve a production plan. Entrepreneurs need to discover these combinations and determine how they fit in the broader process of production in order to yield the desired consumer goods. If the plastic case was placed on the toaster base prior to the construction and installation of the heating elements, then the final product would not be a functioning toaster. The production of the final consumer good (a toaster that functions by heating bread) requires that capital goods be combined in a specific, complementary, and sequential manner to produce the final product. These capital combinations make up what is referred to as the capital structure within an economy. This structure is characterized by a complex set of relationships with a coherent pattern of order. The capital structure is not fixed. Instead it is in a constant state of change as a result of three factors.

The first is human error, whereby decisions made about the use of capital goods are revealed to be mistaken. An entrepreneur, for example, may decide to allocate capital goods to producing desktop computers when consumers in fact desire laptops. Some elements of the capital structure used in the production of desktop computers may be the same as those used in the production of laptop computers, but others will differ, and capital substitutions will need to be made to meet the true desires of consumers.

Second, innovations in production technologies—machinery, techniques, and organizational forms—may make portions of the prior capital structure inefficient. Advances make old ways of producing goods and services less efficient compared to new alternatives. When this occurs, entrepreneurs will need to adjust how capital is allocated within the broader structure of production.

Finally, consumer desires might change so that what was previously produced is no longer valued compared to alternatives. Before, consumers may have wanted desktop computers, but now they want tablets. In this case producers will need to revise their production plans, and the associated capital, to satisfy the new consumer wants.

There is nothing troubling about a continually changing capital structure. In fact, improvements in economic well-being require changes to the capital structure in response to changes in economic conditions, more accurate knowledge of those conditions, and improvements in technology and organizational forms. The result is the need for ongoing capital substitution and re-grouping in the face of changing circumstances. The problem with traditional neoclassical methods of studying the capitalist production process lies in either treating capital as a homogeneous blob, or relying on a momentary snapshot of the capital structure at some period of time. In contrast to either the blob method or period analysis, Austrian economists emphasize that we need to focus on the process by which combinations of heterogeneous and specific capital are shuffled and reshuffled in the broader context of the capital structure.

The concept of the capital structure stands in contrast to the idea of a “capital stock,” which refers to an aggregate measure of all capital at a point in time. Obtaining a single measure of the capital stock requires that capital be added together using a common denominator such as money. Ludwig Lachmann, however, argued that this approach does not make sense because it assumes that prices are in equilibrium. Given subjective expectations and valuations, whether someone values a good as a capital good is not objectively observable. Moreover, human expectations will often be incorrect because of the three factors discussed above. The notion of a capital stock only makes sense in a world where equilibrium has been achieved, meaning that all plans and expectations align perfectly. But, in a disequilibrium world characterized by constant error and change, the idea of a capital stock is not useful. It is for this

reason that Lachmann, and other Austrian economists, focus instead on the capital structure. In disequilibrium, what matters is how heterogeneous and multi-specific capital goods fit together in production plans and how capital substitution occurs in the face of error and changing conditions.

How does the capital structure emerge and evolve given the numerous consumer goods that can be produced, the numerous capital combinations that can be paired, and the reality that people have different, and often conflicting, plans and expectations? The theory of the market process offers an answer to this question.

## Chapter 5

# The Market Process

The market process ... is kept in motion by entrepreneurial activity. Entrepreneurial activity is undertaken to gain profits and therefore, of course, avoid losses ... there are market forces operating upon the price system that tend to remove all internal inconsistencies with the system ... the market process tends to achieving the dovetailing of the numerous decisions being made. The process commences with an initial absence of such consistency among decisions. The process itself is the agitation whereby decisions are rendered consistent. This agitation is the continual reshuffling of resources from one employment to another, the process does not cease so long as complete consistency had not been achieved. The key point is that the misallocation of a resource implies the existence of an unexploited opportunity for profit ... grasping of a profit opportunity amounts ... to a step in the direction of correcting such misallocation.

—Israel Kirzner (1963), *Market Theory and the Price System*: 326–327.

What is a market? There is a tendency for people to think of markets as if they are choosing entities that determine the allocation and distribution of resources. “The market,” we often hear, is responsible for the decline of certain industries, the loss of jobs, or inequality in the distribution of income, and so on. This framing neglects the reality that markets reflect the choices of individuals participating in exchange relationships with others. The market is not a place or thing and has no purpose and no ability to engage in choice. Instead, market outcomes reflect the purposes, plans, and choices of the numerous people (demanders and suppliers) who voluntarily choose to interact with others. Given this, a more accurate way to think about markets is as an array of overlapping, continually changing, voluntary interactions among people, each of whom is seeking to achieve his or her own unique goals. These interactions among individuals contribute to the emergence of a pattern of resource allocations and distributions.

Markets are valuable because in order to accomplish our various goals we typically need to coordinate with others who are also pursuing their own goals. After all, a defining feature of a wealthy society is one where people directly produce very little of what they consume. Instead, most people rely on others to produce the goods and services that they value, which they then obtain through exchange. Think about all of the goods and services that you consume on a daily basis. How many do you produce directly and without the aid of your fellow human beings? The answer for most will be none. Appreciating how much we rely on others to obtain the things we value raises a crucial question: How do we coordinate with others in an orderly manner to achieve our goals in a vastly complex world?

Chapters 3 and 4, which focused on economic calculation and the role of capital in production, provide the foundation for answering this question. In this chapter, we build on this foundation by discussing how the market process operates. Our goal is to explain the process through which the knowledge and expectations of individuals lead toward coordination and cooperation, since this is what is ultimately required for people to achieve many of their ends. This entails an understanding of how people engage in mutual discovery and learning. Those working in the Austrian tradition argue that economists should move beyond the exclusive focus on states of affairs in static equilibrium and concentrate instead upon explicating the principles underpinning the operation of the market process. These key principles are as follows:

1. markets depend on the existence of a specific set of institutions that enable the emergence of prices allowing for economic calculation;
2. economic calculation serves as a guide for the coordination of capital through time in the broader capital structure to produce value-added consumer goods;
3. markets are driven by entrepreneurial discovery in the face of sheer ignorance;
4. this process of entrepreneurial discovery occurs in an ongoing, open-ended system.

### *Exploring the principles*

For market exchanges to occur, certain institutions must exist. Institutions are the formal and informal “rules of the game” that govern human interactions. For the operation of markets, the most important institution is a regime of property

that delineates how resources are owned and used. These property rights can be informal—shared norms about who owns what—or formal—codified legal titles for pieces of property. Property rights matter because in order to interact with others, a person must have command and control over their person and the items they wish to use and exchange. Potential trading partners must have similar command over their persons and the goods they use or offer for exchange. Absent these foundational property rights, no interaction or exchange can take place. The existence of property rights yields several broad benefits that allow markets to operate.

First, property rights allow economic actors to engage in economic calculation, which was discussed in chapter 3. Recall that economic calculation refers to the ability of choosers to determine the expected value of alternative uses of scarce resources. Property rights over the means of production allow for exchange and contestation among market participants. This process of competitive exchange leads to the emergence of market prices that capture key information about the relative scarcity of resources. Market-determined prices are crucial because they empower people to evaluate past decisions while also assisting them in planning for the future. Prices do so by capturing the specific knowledge of time and place that is known only to local actors. To understand why this is important, consider the following examples.

Assume a natural disaster adversely affects the yield of oranges. The result will be that oranges will become more scarce, relative to the situation prior to the natural disaster, which will be reflected in a higher price for oranges. The higher price communicates to people throughout the economic system that oranges have become relatively more scarce and will give them an incentive to consume fewer oranges. Alternatively, consider the discovery of a new mine for a raw material, such as iron ore. This discovery will make iron ore more plentiful, which would lead to a fall in its price. This drop in price communicates to people that iron ore is less scarce relative to the situation prior to the discovery of the new mine. People will adjust their behaviour accordingly by consuming more iron ore than they did before.

The effectiveness of prices as a means of communicating local economic conditions becomes evident when one appreciates that people throughout the economy do not have to know the underlying cause—the natural disaster or discovery of the new mine—of the price change. Nonetheless, they will adjust their behaviour accordingly to consume less, in the case of the natural disaster, or more,

in the case of the discovery of the mine, as a result of changes in scarcity conditions. In this way, market prices allow for economic actors to engage in economic calculation to coordinate the structure of capital discussed in the previous chapter.

Prices serve as a guide as people determine how scarce, heterogeneous capital should be combined with other capital in the broader capital structure. The intricate alignment of capital to produce various consumer goods is governed by price signals. These prices provide continuous feedback, as scarcity conditions change, for the revision of production plans through capital substitution and re-grouping. To return to the earlier example, the lower price of iron ore, the result of the discovery of the new mine, will make production plans that were previously unprofitable at a higher price of iron ore, more profitable. Likewise, the rise in the price of oranges as a result of the natural disaster will make certain production plans—for example, the production of orange juice—less profitable compared to what it was before the disaster. In both cases, entrepreneurs will adjust their plans and the capital structure, based on the information communicated by prices.

In addition to allowing for the emergence of market prices, property rights produce several other important benefits. Because owners have cash-flow rights—they keep any revenues associated with the use or sale of their property—they personally benefit from caring for and managing what they own. Resource owners will tend to serve as stewards of scarce resources that are valued by other people because of the potential for profit attached to doing so. Likewise, owners have an incentive to use their resources in ways that benefit others, since it is through satisfying the wants of others that resource owners earn profits. Finally, owners have an incentive to minimize the harm that their property does to others. Property rights establish a clear link between use and responsibility because owners can be held liable where their property causes harm to others. If your car does damage to my property, I can seek legal recourse against you for damages as the owner of the vehicle. The result is that clearly defined property rights lower the chance that one person's property will cause harm to another person's property since there are clear owners who can be held responsible for damages. Working in unison, the benefits associated with property rights provide both the necessary knowledge and incentive for cooperation and coordination.

Within a regime of private property rights, the market process is one of entrepreneurial discovery in the face of sheer ignorance. Entrepreneurship



involves being alert to potential profit opportunities. But these profit opportunities are not predetermined and known. To capture this point, Israel Kirzner emphasizes the difference between ignorance and sheer ignorance. Ignorance refers to a known lack of knowledge. I know that I lack the knowledge of how to construct a computer. I also know that this knowledge is available and “out there” if I ever decide to seek it out. Ignorance is an object of choice because a person could invest resources in gaining the knowledge, which they know is available, to remove their ignorance. For example, an entrepreneur might be ignorant of regulations in another geographic location because he does not currently operate in that space. If he were deciding whether to expand operations to that locale, however, he could remove his ignorance by investing additional resources to obtain the necessary regulatory information.

Sheer ignorance, in contrast, refers to unknown aspects of the world. This type of ignorance is not a result of choice and cannot be removed by investing more resources in obtaining additional information. Instead, sheer ignorance represents states of the world that are simply not known until they are discovered by entrepreneurs. But how does this discovery take place? The lure of profit is what drives entrepreneurs to be continually alert to previously unexploited opportunities and, in the process, to pull back the curtain of sheer ignorance. Because people view the world differently depending upon their subjective perceptions of their surroundings, alertness varies. This variation allows some people to identify profit opportunities that have been overlooked by others. But not all perceived profit opportunities are accurate perceptions of the underlying realities of the world.

While entrepreneurs are confident that they have identified legitimate profit opportunities (otherwise, they would not pursue these opportunities), many ventures turn out to be errors. That is, some entrepreneurs will perceive opportunities that do not, in fact, satisfy the wants of consumers. The determination of whether a perceived profit opportunity is, in fact, genuine occurs by subjecting the opportunity to the market test of profit and loss.

If the entrepreneur’s venture earns a profit, it reveals that the perceived opportunity for profit was correct. Resources were previously misallocated, allowing the entrepreneur to purchase and combine capital inputs to produce a good valued by consumers as demonstrated by their willingness to pay a price that yields a profit. A loss, in contrast, reveals that the entrepreneur’s conjecture was incorrect. He has reallocated resources in a manner that yields

less value compared to alternative uses, as demonstrated by the unwillingness of consumers to purchase the product in sufficient quantities to yield a profit. A profit signals to the entrepreneur to continue to produce while also signalling to other entrepreneurs that they can earn a profit by reallocating resources toward the profitable venture. Similarly, a loss signals to the entrepreneur that he should cease production and reallocate resources accordingly, while also communicating to other entrepreneurs that there is no profit to be had by pursuing that specific production plan.

By serving as a test of entrepreneurial conjectures, profit and loss play a key role in providing feedback to economic actors and contributes to coordination across the economic system. The profit and loss mechanism also offers a means for striking a balance between risk taking and prudence. Risk taking is desirable because it leads to innovation and betting on perceived opportunities that may benefit consumers. At the same time, undisciplined risk taking can lead to the waste of scarce resources that could instead be used to produce other, value-added goods and services. Prudence avoids excessive risk taking, but also can lead to overly cautious behaviour that may stifle the process of innovation and creative destruction, which is uncertain and thus contains an element of risk. Profit and loss help to balance these two forces.

The lure of profit provides an incentive for risk taking because a successful first mover can earn a significant profit by being the initial producer of a good valued by consumers. At the same time, the potential for loss makes entrepreneurs careful when making investment decisions. And the actual experience of earning a loss once an investment has been made will lead entrepreneurs to change their behaviours, since failing to do so will lead to further losses and eventually to complete liquidation. While the tolerance for risk varies from one person to another, an important function of markets is to balance blind risk-taking with judiciousness to ensure that scarce resources tend to be used in a manner that produces value for consumers.

The Austrian conception of the market as a discovery process stands in stark contrast to the standard model of perfect competition, which focuses on equilibrium end-states rather than on the process through which human choosers grapple with uncertainty and imperfect knowledge about future consumer demands and the best ways to satisfy those demands. The market process is continuous and involves ongoing discovery and resource reallocations

in response to those discoveries. Economic actors acquire knowledge in the process of engaging in the act of competition, as they seek to outcompete their rivals by providing a superior product at a lower price.

As F.A. Hayek put it, market competition is best understood as a discovery procedure by which people are best able to learn, correct errors, and discover new and better ways of organizing economic activity to satisfy their wants more fully. This view differs from the perfect knowledge assumption that underpins neoclassical models of markets. For Austrian economists, the central function of markets is to produce the relevant economic knowledge to coordinate human action in a world of uncertainty and constant change so that people can achieve their goals in an orderly manner.



## Chapter 6

# Spontaneous Order

How can it be, that institutions which serve the common welfare and are extremely significant for its development come into being without a common will directed toward establishing them?

—Carl Menger (1883), *Investigations into the Method of the Social Sciences*: 146.

Overnight, snow falls on a college campus. As students make their way to class the next morning, they seek the shortest path possible to avoid getting wet and cold. The first student cuts across the grass, leaving a set of footprints in the snow. A second student follows the first, taking advantage of flattened snow left by the first student. As subsequent students follow suit, a well-defined path quickly appears. This is an example of a spontaneous order, an outcome that is the result of purposive action but not design. No single person or group of people consciously planned the path, yet the path appeared as each person pursued the goal of getting to class in a way that minimized their chances of getting wet and cold. The idea of spontaneous order is one of the most important concepts in the social sciences and is prevalent throughout the work of Austrian economists.

The systematic development of thinking about spontaneous order was achieved during the eighteenth century by scholars of the Scottish Enlightenment. Thinkers like Adam Ferguson, David Hume, and Adam Smith appreciated the idea that mechanisms existed to solve complicated problems and generate complex orders absent design or control by an individual or group of individuals. Moreover, given the nuance and complexity of these orders they could not be designed using human reason because they extended beyond what the human mind could grasp. A crucial feature of the theory of spontaneous order

is that its operation does not depend on an ideal model of people. For example, it does not require that people are benevolent, other-regarding, or that they possess extraordinary intelligence. Instead, the theory of spontaneous order takes people as they are, and demonstrates how individuals, each pursuing their own plans and purposes, can contribute to the emergence of a broader order that benefits others in society.

Following in the footsteps of the Enlightenment thinkers, Carl Menger emphasized that a central question in the social sciences was how institutions that generate benefits to society could emerge absent a central planner designing them. The importance of this question can be seen throughout the work of Austrian economists, who emphasize the importance of emergent orders for understanding numerous aspects of human civilization.

Let's unpack and explore what the concept of spontaneous order entails, beginning with "order." When we use the word "order," we are referring to coordination among people pursuing their own ends. As discussed in the previous chapters, for most people achieving their ends involves coordination with others who are pursuing their ends. In this context, order can be understood as the integration of actions among numerous people. Disorder, in contrast, suggests a lack of coordination as people are unable to align with others in ways necessary to fulfill their plans. There are two types of order.

A planned order is one that is rationally constructed using human reason. Hayek referred to these types of orders as "organizations." Organizations are ends-oriented, meaning that they are designed with a specific intended purpose, or end, in mind. A student club with a written set of rules would be an example of a designed order. The club and its governing rules are designed to achieve a specific purpose. The second type of order is spontaneous. Rather than being designed, a spontaneous order is emergent in that it results, as an unintended consequence, from the interactions of people who are pursuing their own ends. In contrast to an organization, which is ends-driven, a spontaneous order is means-driven. That is, a spontaneous order is the result of people employing means to achieve their diverse individual goals rather than the result of a pre-conceived plan with one defined end.

An example of a spontaneous order would be the market process discussed in the previous chapter. People interact with others to achieve their goals. In doing so, they generate a broader order that was not the intention of their individual actions. The emergent order of the market is not unplanned

and is not implemented by a designer, so it is not ends-oriented. Instead, the order emerges out of people employing the means available to them to achieve their desired individual goals.

Spontaneous orders have five defining characteristics. Let us consider each using the market process to illustrate these characteristics. First, they are the result of human action but not of human design. This means that spontaneous orders are not the result of random behaviour. Instead, they are the unintended result of a multitude of individuals each pursuing their diverse goals to the best of their abilities. In pursuing their own aims, people contribute to a broader order that we observe when we step back and take a birds-eye view of the outcome.

Think about the market process. Individuals interact with others to achieve their goals. These interactions benefit the parties directly but also contribute to a broader order of which the participants are unaware. We can step back and look at the outcome of this process and observe the complex order it produces. For example, when we step back we can see that food is plentiful throughout entire countries without any single entity planning the coordination that makes its supply routine. Or we can step back and consider the order that exists in a supermarket as tens of thousands of products, produced through the actions of millions of people, are made available for general consumption absent a central plan.

Second, a spontaneous order can readily be described as an order, meaning that identifiable patterns emerge from the interactions of those in the system. The operation of the market process allows us to make broad predictions of the patterns that will emerge. For examples, property rights allow for exchange that allows for the emergence of prices. The prices reflect the trade-off, or opportunity costs, of scarce resources. We can also say that resources will continue to be reallocated to their highest-valued uses as people respond to changes in prices and to the feedback provided by profit and loss.

The third characteristic is that spontaneous orders require feedback mechanisms—both positive and negative—to guide people’s behaviours as they seek to coordinate with others. In the context of markets, profit and loss serve this role. Profit and loss provide feedback to entrepreneurs about perceived profit opportunities and the viability of production plans implemented to exploit those opportunities. Hard budget constraints in the form of finite monetary resources prompt people to act on the profit-and-loss feedback and adjust their behaviour accordingly. If they fail to adjust their behaviour in the face of feedback, they will eventually run out of money and go out of business.

Fourth, general rules of conduct regarding what is appropriate behaviour are followed by those whose actions produce the spontaneous order. These rules, which can be informal or formal, frame interaction among people and influence the specifics of the order that emerges. Markets are grounded in the property rights that facilitate interaction and exchange and allow for the emergence of prices. Beyond property rights, there is a wide range of rules that allow markets to operate. For example, informal norms, such as manners, and formal rules, such as standards set by professional associations, matter a great deal in facilitating interactions among people.

The final characteristic is that spontaneous orders are highly complex and nuanced, which suggests that they cannot be fully understood using human reason. Because of this, people contributing to the order do not need to understand their contribution or the broader order itself. One of the most powerful aspects of markets is that they generate orderly outcomes despite the fact that people do not know, and do not need to know, how they are contributing to the broader pattern of order. In addition, the fact that the details of spontaneous orders are beyond the grasp of human reason means that these orders can extend far beyond what could be achieved using the human mind to intentionally design these orders. There is no way that people could design the complex outcomes of markets, as was made clear by Mises and Hayek in the socialist calculation debate (see chapter 3). In fact, markets are desirable precisely because they allow us to discover what it is that we do not know.

Beyond the market process, the logic of spontaneous order offers insight into a number of other phenomena that we observe in daily life. One example is language. No single individual, or group of individuals, designed language. Instead, language emerges as people interact with one another and attempt to communicate. Language, therefore, is the result of human action but not of human design. Language is governed by a broad set of rules—the rules of grammar—that produce a definable order and facilitates how people communicate. There are also informal rules that govern how people communicate. For instance, in different parts of societies that share a common language, various informal rules govern the use of context-specific phrases and slang that others in the area also use and understand. Beyond language, other social phenomena—such as money, law, moral norms, cities, and group dynamics—can trace their origins to purposeful human action, but not to design. In each case, individuals striving to improve their own situations unintentionally contribute to a broader order with widespread benefits.



An appreciation of spontaneous order demonstrates the flawed thinking behind the widespread belief that order must be the result of human action and design. Predictability and order, it is often assumed, must be the result of policies and plans designed and implemented by experts. From this perspective, the absence of observable control by specific people is associated with chaos. This way of thinking, however, neglects the importance of complex spontaneous orders and the limits on human reason to design and control these orders.

There is an important distinction between simple contexts and complex contexts. Simple contexts are linear in nature, meaning there is a stable and clear cause and effect between inputs and outcomes that can be known and controlled. The term “simple” does not imply easy or simple-minded, but rather refers to the ability of the human mind to grasp the relevant variables and understand how they fit together to achieve the desired goal. The specifics of sending a person to the moon constitutes a simple system that can be solved using human reason and knowledge. So too is the construction of a skyscraper. These are difficult engineering problems, but they can be solved by talented and skilled experts.

A complex situation, in contrast, is one characterized by open-endedness and constant flux. In a complex system, interactions among people generate outcomes that cannot be anticipated or fully grasped by human reason. In complex contexts order is not the result of human design and control. Instead, order emerges out of the interactions among people pursuing their own ends. Contrary to the idea that order is the result of deliberate design and regulation, attempting to plan and control complex systems using human reason is bound to lead to dysfunction at best, and significant harm to people’s well-being at worst.

These undesirable outcomes are the result of inappropriate reliance on human reason to design plans that are suitable for simple contexts, but not for complex systems. Designing a skyscraper is not the same as understanding the best use of scarce resources across millions of potential uses. The former requires the use of scientific knowledge that can be communicated and used in construction. The latter requires economic knowledge that does not pre-exist and that cannot be easily communicated, but instead emerges out of interactions by dispersed actors in the competitive market process.

If our goal is to understand the human world, then we need to focus on how people coordinate with one another to achieve their goals. This understanding includes an appreciation of spontaneous orders and the role that they

play both in social cooperation and as a context for planned orders. This is important both for understanding the world as it is, and for appreciating the limits of human reason as a tool for designing policy. The reality is that the intelligence of even the most well-trained expert is severely limited relative to the complexity of the numerous spontaneous orders that characterize human life. Knowledge of our limited human reason—what F.A. Hayek referred to as “negative knowledge”—is itself an important type of knowledge for guiding our actions and avoiding harmful policies even if they are motivated by the best of intentions.

The spontaneous order framework helps us understand the nuances and complexities of emergent phenomena. In doing so, this framework illustrates how many things that appear chaotic are instead orderly, yet beyond the grasp of human reason. The most important takeaway from the theory of spontaneous order is the appreciation of the constraints imposed by our limited reason on both fully understanding the world and engaging in design so that it aligns with our desires for how the world should look.

## Chapter 7

# Interventionism

Coercive intervention, on the other hand, signifies *per se* that the individual or individuals coerced would not have done what they are now doing were it not for the intervention. The individual who is coerced into saying or not saying something or into making or not making an exchange with the intervener or with someone else is having his actions changed by a threat of violence. The coerced individual loses in utility as a result of the intervention, for his action has been changed by its impact.”

—Murray Rothbard (1970), *Power and Market*: 13.

Well-intentioned government policymakers seek to help low-income families purchase milk. In order to make cow’s milk more affordable, the policymakers impose a price ceiling. A price ceiling is a government mandate on the maximum monetary price that can be legally charged for a product.

Milk producers, however, are not passive in the wake of the government’s price decree. They adjust their behaviour to the price ceiling by holding some milk off the market until the price is allowed to again rise above the price established by the ceiling. This reduces the supply of milk available to consumers, including those less well off who were the intended beneficiaries of the initial government price control. That’s not all. In the face of the reduced supply of milk, consumers shift to milk substitutes—like soy milk and almond milk—and this leads to an increase in the price of these goods, making them less affordable to the least well-off in society.

At this point, government policymakers face a decision. They can remove the initial price control on cow’s milk, which will lead to an increase in the quantity supplied, as the higher price induces producers to bring more milk to market. Alternatively, policymakers can impose additional regulations on

producers. For example, they could place price controls on milk substitutes as well in an attempt to make these goods more affordable. Alternatively, they can maintain the initial price control on cow's milk but attempt to induce producers to increase supply through subsidies or through the forceful seizure of milk production, which transfers private property to government control.

This thought experiment was presented by Ludwig von Mises to illustrate the problems with interventionism, which refers to efforts by government policymakers to manipulate economic activity to align with their goals. This requires employing the discretionary power of the administrative state to replace the preferences of private economic actors with those of policymakers. As illustrated by the example of the price control on milk, government interference in a market generates a range of interrelated effects on economic activity. In addition, subsequent attempts by policymakers to counteract the emergence of unintended consequences and to make the initial intervention yield the desired results leads to increasingly extensive controls over economic activity, which threatens the dynamism of the market process. Let's explore why.

Interventionism is a form of non-comprehensive planning. It does not abolish ownership over the means of production or attempt to plan all economic activity, as under socialism. But it does involve piecemeal economic planning. Under piecemeal planning, policymakers replace what emerged through the market process with their own judgments of what they believe should exist. The underlying implicit assumption of interventionism, therefore, is that policymakers have access to the economic knowledge necessary to engage in piecemeal planning to achieve their ends. More specifically, there are three types of economic knowledge that policymakers are assumed to possess.

First, since government interventions into the market are justified as a means of improving social welfare, the policymakers are assumed to possess knowledge of ways of allocating scarce resources that are superior to the market alternative. Second, intervenors are assumed to possess knowledge of how to adjust interventions in the face of constant change. As broader economic conditions change, so too will the efficacy of even well-intentioned interventions. Given the goal of improving social welfare, past intervention will need to be continually revised, and perhaps removed or replaced, in the face of changing circumstances. This requires that policymakers possess knowledge of the new conditions as well as the knowledge of how best to revise existing regulations or introduce new regulations that improve social welfare in the face

of circumstances different from those in the past. Third, the policymakers are assumed to possess knowledge of what would have emerged absent the intervention. Claiming an intervention is necessary to achieve an outcome implies that the same outcome, or an even better outcome, would not have emerged in future periods absent the intervention.

The main constraint on policymakers in obtaining each of these categories of economic knowledge is the knowledge problem that Mises and Hayek highlighted during the socialist calculation debate. Absent the ability to rely on market-determined prices and profit and loss, there is no way for policymakers to know the highest-valued uses of scarce resources. This ignorance poses issues for the initial design of interventions because there is no way for policymakers to acquire the tacit and context-specific knowledge of dispersed actors throughout society. As a result, they cannot have superior knowledge, relative to market participants, about the allocation of resources. This same issue also plagues attempts by policymakers to revise interventions as conditions change. Since they are unable to acquire the economic knowledge of time and place necessary to determine the best allocation of scarce resources, there is no way to ensure that interventions will be revised and adjusted to improve social welfare.

Finally, since the market is an open-ended process of competition, discovery, and change, there is no way for policymakers to know what would have emerged through voluntary interaction and exchange absent the intervention. This makes it impossible for policymakers to determine if an intervention has produced an outcome that is superior to the counterfactual—namely, the spontaneous order that would have emerged if economic actors were left to engage without intervention in discovery and exchange. Recall that markets are desirable because they create an environment that allows people to experiment and learn the best use of resources. This process is curtailed when government policymakers replace the market process with their own plans and judgments of what resource allocations should exist.

Because policymakers rely on their limited reason and knowledge to intervene in the market process, which is a complex system beyond the full grasp of the human mind, unintended consequences emerge. These unintended consequences can be broken into three general categories. The first is the obfuscation of current and future profit opportunities that would exist absent the intervention. Absent a government-granted license that restricts entry, for instance, there might be profit opportunities pursued by entrepreneurs. However, because

these entrepreneurs lack a state-issued license, they are not able to pursue those opportunities. This reduces the welfare of both the entrepreneurs and the customers who would have been made better off by their products. Second, interventions often create new opportunities for entrepreneurial activity that do not enhance wealth. For example, entrepreneurs may seek to avoid regulations by paying bribes or investing resources in influencing regulators. These behaviours benefit the individual entrepreneurs, but they are harmful to society because they represent resources and entrepreneurial talent that are diverted from satisfying consumers to instead avoiding the consequences of government interventions. Third, interventionism can lead to “regime uncertainty,” which refers to the inability of economic actors to accurately gauge the future actions of the government as it pertains to interventions. A well-functioning market economy requires stable and predictable rules. The resulting relative certainty allows people to make better plans for the future. The future is always characterized by some uncertainty, but that uncertainty can be reduced if rules are expected to remain constant over time.

To understand why this matters, consider the thought process of an entrepreneur who is deciding whether or not to pursue a venture that might only yield profits in a decade. If the entrepreneur believes that there is a good chance that the government will change the rules and confiscate her wealth over the next decade, she will have a weaker incentive to invest. If, in contrast, the entrepreneur has confidence that the existing rules, which allow entrepreneurs to keep the profits from their investments, will remain constant over the next decade, she will be more likely to invest in the long-term project. The broader point is that interventionism, to the extent that it results in unpredictable or overly burdensome interference in economic activity, poses a threat to the entrepreneurial dynamism of the market process.

An appreciation of the problems posed by interventionism—the knowledge problem and unintended consequences—is at the core of the Austrian critique of standard welfare economics. Welfare economics studies how resource allocations affect social well-being. Standard welfare economics, which serves as the economic rationale for government intervention, concerns itself with finding the best use of available resources under the assumption that all the relevant information concerning preferences and production techniques is known and given.

The economic problem, under such circumstances, is a simple computational problem of employing the right means to obtain the appropriate ends.

Adoption of policy is based on how well the market can handle the static economic problem confronting society. To the extent that the market does not approximate the ideal, it is said to fail and government is called upon to push the economy closer to the solution of the economic problem through interventionism.

Austrians argue that this is not the economic problem society confronts. The problem is rather one of discovering and using the dispersed and tacit knowledge that emerges from interactions. Thus, while mainstream economics models the competitive market as a type of supercomputer, Austrians view the market as a means of mobilizing and using the context-specific knowledge dispersed throughout society. The bias that Austrians share towards the free market, therefore, is grounded in the effectiveness of this system at using and conveying the various bits and pieces of knowledge necessary to allocate resources in a value-added manner.

The emphasis on the division of knowledge and the market process as a means of discovering and using this knowledge is the crux of the Austrian criticism of both comprehensive and piecemeal government intervention into a freely operating market. Government's inability to obtain the knowledge necessary to plan or regulate the price system is the fundamental economic criticism of intervention into the market order. We emphasize the term "economics" to highlight that this is not an ideological argument in favour of markets, but rather a subtle argument in technical economics about the type of knowledge, and the source of that knowledge, necessary to use scarce resources in a way that improves human welfare.

It is important to note that the Austrian analysis of interventionism assumes the best of motives on the part of the policymakers responsible for initiating interventions into the market. If policymakers say that they plan to adopt rent controls in order to make housing more available to the least well-off in society, the analysis of interventionism takes them at their word. In taking the stated ends as given, focus is placed on whether the proposed means—the rent controls—are suitable for achieving the policymakers' goal. While this assumption is unrealistic, it offers an important benefit. By assuming the first-best regarding policymaking intentions, the Austrian analysis of interventionism engages the hard case by granting extremely favourable conditions to the proponents of interventionism.

Even under these favourable conditions, where government officials genuinely seek to improve economic conditions in the name of the public interest,

economic analysis demonstrates that interfering with the competitive market process produces results that are often contrary to the betterment of the public. This is not limited to the recognition of the problems with basic wage and price controls, but instead applies to all areas of government interference with the market process. Although the specifics will vary from case to case, the general economic result is the same—interventionism undermines the dynamism of the market process by curtailing the ability of economic actors to engage in competition, discovery, experimentation, learning, and voluntary exchange. This has perverse consequences for human well-being, which stands at odds with the well-intentioned goals stated by policymakers to justify interventions into the market.



## Chapter 8

# Business Cycles

The main problem that a theory of depression must explain is: *why is there a sudden general cluster of business errors?* This is the first question for any cycle theory. Business activity moves along nicely with most business firms making handsome profits. Suddenly, without warning, conditions change and the bulk of business firms are experiencing losses; they are suddenly revealed to have made grievous errors in forecasting ... As a rule only some businessmen suffer losses at any one time; the bulk either break even or earn profits. How, then, do we explain the curious phenomenon of the crisis when almost all entrepreneurs suffer sudden losses? In short, how did all the country's astute businessmen come to make such errors together, and why were they all suddenly revealed at this particular time? This is the great problem of cycle theory ... In the purely free and unhampered market, there will be no cluster of errors, since trained entrepreneurs will not all make errors at the same time. The "boom-bust" cycle is generated by monetary intervention in the market, specifically bank credit expansion to business.

—Murray Rothbard (1963), *America's Great Depression*: 16.

F.A. Hayek earned two doctorates from the University of Vienna (1921 and 1923). After his university studies, Hayek was introduced to Ludwig von Mises through his teacher, Friedrich von Wieser, and their collaboration began. For five years, Hayek worked under Mises at a government office and then, in 1927, they co-founded the Austrian Institute for Business Cycle Research, where their work resulted in the Mises-Hayek theory of the trade cycle.

Building upon Mises's earlier work (*The Theory of Money and Credit*, 1912), which served as the foundation for the Austrian theory of the trade cycle, Hayek worked to refine both the technical understanding of capital coordination and the institutional details of credit policy. He published two books (*Monetary*

*Theory and the Trade Cycle*, 1929; and *Prices and Production*, 1931), which analyzed the effects of credit expansion on the economy's capital structure. Hayek presented this work in a series of lectures at the London School of Economics, where he was received with great acclaim and appointed, in 1932, as the Tooke Professor of Economics Science and Statistics.

Hayek's arrival in London sparked the most fundamental debate in monetary policy in the twentieth century—the Hayek-Keynes debate. John Maynard Keynes had published *A Treatise on Money* in 1930, of which Hayek wrote a lengthy and critical two-part review. The main problem with Keynes's position, Hayek argued, was his failure to understand the role that the interest rate plays in coordinating plans and the capital structure, through time, in a market society. The Mises-Hayek theory of the trade cycle offered an alternative by rendering intelligible the “cluster of errors” that occurs during the bust by focusing on the distortions in relative prices and in the capital structure created by government-induced credit expansions. In this regard, the Mises-Hayek theory of the business cycle is one illustration of the dynamics of interventionism whereby an initial government intervention into the market sets off a chain of unintended and undesirable consequences.

At the core of the Mises-Hayek theory is the idea that money is not neutral. Money would be neutral if a monetary expansion had no effect on real prices. For example, it would be neutral if a doubling of the money supply led to an automatic doubling of all prices and wages such that real wealth would be left unchanged. People's bank accounts would double and so too would prices such that their real purchasing power remained the same. The notion that money is not neutral, in contrast, emphasizes that monetary expansion does not raise all prices and wages instantaneously and in unison. Instead, money works its way through the economic system starting at the point of injection and causing changes in relative prices as it filters through the system. This process benefits the early recipients of the newly printed money at the expense of those later in line.

Those who receive the new money prior to the full adjustment of prices benefit through increased purchasing power that enables them to bid resources away from others who lack the improved purchasing power. Those who are the last to receive the new money suffer from reduced purchasing power because prices have already adjusted upward. The relative price changes caused by the credit expansion influence the process of exchange and production as

entrepreneurs respond to the signals sent by prices as they make and revise their production plans. These production plans, in turn, are what determine the capital structure and, ultimately, what consumer goods are produced.

Perhaps the easiest way to understand the Austrian theory of the business cycle is to contrast a genuine economic expansion, as a result of a change in savings, with an artificial government-caused credit boom. To begin, consider the market for loanable funds resulting from the willingness of people to save at different interest rates (the supply side of the market) and the willingness of entrepreneurs to borrow at different interest rates (the demand side of the market). Together, the supply and demand for loanable funds result in an interest rate that coordinates both sides of the market. This rate is known as the “natural rate of interest” since it is the interest rate that emerges naturally out of the voluntary interactions of suppliers and demanders of loanable funds.

The interest rate is best understood as an intertemporal price that coordinates the allocation of resources through time. It captures people’s “time preference” or willingness to consume now rather than forgoing current consumption in order to save for the future. Market-determined interest rates serve the function of coordinating the market for loanable funds so that entrepreneurs undertake investment opportunities that are consistent with the desire of income earners to save today in order to consume in the future. Moreover, the natural rate of interest determines not only the overall level of investment, but also the allocation of resources within the complex capital structure.

As the time preferences of income earners change, so too does their desire to save. This affects the market interest rate for loanable funds. Assume, for example, that a new medical innovation increases life expectancy. This will lead people to lower their time preference, which means they will have a stronger preference to save for the future as compared to consuming resources in the present. This change in time preference affects the loanable-funds market. The desire to save more will increase the supply of loanable funds; this has two effects.

First, the increase in the supply of loanable funds will lower the interest rate (for a given demand for loanable funds). This fall in the interest rate for loanable funds sends an important signal to entrepreneurs: longer-term projects that were not previously profitable at the higher interest rate are now profitable at the lower interest rate. Second, at the same time, the desire of people to save more for the future leads to a greater availability of resources for businesses to use to pursue these projects. The interest rate for loanable funds facilitates

a revision in intertemporal production plans as entrepreneurs invest in longer, more roundabout, production projects. Notice that under this scenario the market process operates to coordinate heterogeneous and multi-specific capital across time to reflect the genuine time preferences of economic actors. This situation is sustainable because production plans align with underlying consumer preferences, and also because the resources necessary to execute and complete entrepreneurial projects are readily available given that consumers have decided to forgo consumption in the present for consumption in the future.

Contrast this situation with an artificial government-induced credit boom. A central bank decides to increase the supply of loanable funds by creating new money that it injects into the economy. As in the scenario above, this leads to an increase in the overall supply of loanable funds and a decrease in the interest rate. However, there is an important difference. In the scenario above, the increase in the supply of loanable funds, and the concomitant fall in the interest rate, reflects a genuine change in preference on the part of consumers to save more in the present. The injection induced by the central bank, in contrast, does not reflect an actual change in the time preferences of consumers. As in the previous scenario, entrepreneurs respond to the lower rate by borrowing more as previously unprofitable projects are now profitable at the lower interest rate. Production plans are revised accordingly to make more goods and services available to consumers in the future.

The problem is that the new lower interest rate is not an accurate reflection of genuine consumer preferences. That is, people wish to consume and save in the same manner that they did prior to the credit injection by the central bank. In the prior scenario, the (genuine) reduction in the market interest rate was accompanied by the availability of resources—as consumers chose to save by forgoing consumption today—to complete projects undertaken by entrepreneurs at the lower interest rate. In the credit-induced scenario, this does not happen. Since the preferences of consumers have not changed, they do not make additional resources available through savings. In fact, the opposite happens. As the interest rate falls as a result of the central bank's injection of funds, people will respond by saving less and spending more in the present. The result is that the actions of entrepreneurs and those of consumers are at odds.

The resulting distortion in the structure of production cannot be maintained as the monetary expansion works its way through the economy. Consumers continue to draw incomes and assert their true preferences for

savings and consumption. The artificially low interest rate eventually adjusts to reflect the real scarcity of savings, in comparison to producers' perceptions immediately after the credit expansion, as entrepreneurs bid against one another for the scarce resources available. For some entrepreneurs the projects that appeared profitable are now revealed as unprofitable.

The “boom” associated with credit expansion, therefore, leads to the “bust” when economic forces reassert themselves and it becomes clear that investment opportunities that were perceived to be profitable are either unprofitable or cannot be completed. The bust, which is the revelation of the malinvestment caused by the central bank's credit injection, entails a process of capital re-structuring and re-grouping as entrepreneurs take steps to revise production plans so that they align with the genuine consumption and savings preferences of economic actors.

The Mises-Hayek theory of the business cycle has important implications for policy. In contrast to the Austrian focus on distortions in relative prices and the capital structure, many economists attribute busts to deficiency in aggregate demand. From this perspective the appropriate policy response to busts is for government to increase aggregate demand through some mix of monetary and fiscal stimulus. Austrians oppose this policy response to busts because they see these supposed solutions as the root cause of the bust in the first place.

The appropriate response to a bust is to allow entrepreneurs, through the operation of the market process, to reallocate and regroup scarce resources in the capital structure. This process of reallocation takes time and can impose significant costs like business liquidation, unemployment, and idle resources. However, these costs cannot be avoided through further monetary-induced credit because such a response will only cause subsequent distortions to the capital structure. At best such policies can “kick the can down the road” by papering over the consequences of past credit-induced distortions by creating new ones. They cannot, however, solve the fundamental issue, which is a misallocation of scarce resources caused by the initial intervention in the market.

In addition to discussing the policy response to a bust once it occurs, Austrian economists have also explored ways of avoiding the onset of a bust in the first place. These include designing and reforming monetary institutions to limit the possibility of credit expansions that lead to distortions in relative prices and the capital structure. Such proposals fall under the idea of a “monetary constitution,” a set of rules and institutional arrangements to limit the ability of

banks to create money. A monetary constitution can take a variety of forms in practice and might include such things as a rule limiting the amount of credit created within a particular time frame, the backing of credit by hard money to limit the ability of banks to print money, or monetary competition which would limit money creation by replacing a centralized monopoly supplier of money with competition among banks.

We began this chapter with a discussion of the development of the Mises-Hayek theory of the business cycle and Hayek's famous debate with John Maynard Keynes in the 1930s. What was the outcome of this debate? Keynes responded to the first part of Hayek's critique of *A Treatise on Money* by critiquing Hayek's book, *Prices and Production*. After the second part of Hayek's critique was published, Keynes chose not to respond. Instead, he turned his attention to completing his next book, *The General Theory of Employment, Interest, and Money*. Hayek, on the other hand, began refining his understanding of capital theory because he was convinced that this was the key point to convey to Keynes and the rest of the economics profession.

The *General Theory* was published in 1936 and Hayek decided not to respond directly. In making this decision, Hayek committed what many defenders of the free market system consider to be one of the major tactical errors of this century. While Keynes's *General Theory* became perhaps the most influential book on economic policy in the twentieth century, Hayek laboured on a project that would become *The Pure Theory of Capital* (1941), which is his most technical and least influential book. In the midst of the Great Depression Keynes was viewed as winning the debate with Hayek, and Keynesian economics came to dominate the professional discourse in macroeconomics.

## Chapter 9

# Planning and the Power Problem

Economic control is not merely control of a sector of human life which can be separated from the rest; it is the control of the means for all our ends. And whoever has sole control of the means must also determine which ends are to be served, which values are to be rated higher and which lower— in short, what men should believe and strive for.

—F.A. Hayek (1944), *The Road to Serfdom*: 92.

As discussed in earlier chapters, government policymakers suffer from the problem of insufficient knowledge in their efforts to plan economic activity. Knowledge is dispersed throughout society and much of this knowledge is tacit, meaning it cannot be communicated, aggregated, or possessed by a single policymaker or group of policymakers. This knowledge problem applies both to efforts at comprehensive economic planning—that is, planning all economic activity—and to efforts at non-comprehensive planning—that is, piecemeal efforts at planning aspects of economic activity. The market process attenuates this knowledge problem as entrepreneurs, relying on market-determined prices and profit and loss as guideposts, discover the best use of scarce resources. The inability of government planners to acquire the necessary economic knowledge, combined with the fact that people adjust their behaviour to interventions, also means that efforts to plan economic activity will lead to a series of unintended consequences, as illustrated by the example of the price control of cow's milk at the beginning of chapter 7. Beyond the knowledge problem, there is another issue with the government planning of economic activity: it tends to centralize discretionary power in the hands of a small group of policymakers.

This “power problem” was highlighted by F.A. Hayek and Don Lavoie in their writings on government planning. Like the knowledge problem, the

power problem applies to both comprehensive and non-comprehensive planning. Moreover, the dual knowledge and power problems are interrelated. The power problem arises from the fact that policymakers face a knowledge problem in planning yet must develop and impose a concrete blueprint in order to achieve their goals. Let's explore this interconnection between these dual problems.

Regardless of the extent of intervention, economic planning by the government entails the replacement of the market process for deciding how to allocate scarce resources with the political process. That is, planning requires that policymakers substitute their goals and desires for those of private actors in the market. Government planning, therefore, involves developing an overarching blueprint of what the economic outcomes should look like based on the vision of policymakers. In markets, dispersed decision-makers develop their individual plans with the guidance of prices (economic calculation) and profits and loss. The pursuit of these individual plans leads to an overarching order that is spontaneous and unplanned by any single mind. In markets, there is no single hierarchy of ends that is pursued but rather a diversity of goals pursued by individual choosers. In markets, not all consumers need to buy blue, four-door sedans. Instead, markets allow for the emergence of a diversity of goods that are not predetermined by a single planning entity—vehicles of all shapes, sizes, and colors are offered in markets.

The situation is different when government intervenes in economic activity. Policymakers must identify a predefined set of ends that they believe should exist. The need to predefine ends becomes clear when one appreciates that the very purpose of government planning is to intervene in markets to replace the market process, and the spontaneous outcomes it generates, with the predetermined ends of planners. Policymakers, for example, determine that a specific product or service should, or should not exist, or that a specific price should be charged.

Once government policymakers substitute their vision for the wants and goals of private actors, the economic knowledge that emerges through the market process will be distorted or lost. Recall that economic knowledge is not predetermined and given. Instead, this knowledge emerges through interactions and experimentation in the competitive market process. Curtailing the market process, therefore, attenuates the mechanism through which economic knowledge is discovered.

Consider again the case of a simple price control that is an instance of non-comprehensive economic planning. Under this scenario, markets are



not abolished. Market prices still exist, and the market process continues to operate. This process, however, is distorted by government's artificial cap on the market price. By altering market prices from what otherwise would emerge, the intervention distorts the knowledge contained in the price signal about the relative scarcity of resources. This will adversely affect the broader pattern of resource allocation as people respond to the manipulated price signal that does not capture the genuine, underlying scarcity conditions. It is this logic that explains the series of unintended consequences that emerges from an initial intervention, as illustrated by the case of the price control on cow's milk.

In response to these unintended consequences, policymakers have two options. They can remove the initial intervention, which will free the market process to operate without distortions. Alternatively, they can introduce additional policies meant to address these undesirable outcomes. But notice that this second course of action requires expanding the discretionary power of policymakers as they extend their control over additional aspects of economic activity.

In order to design, implement, and enforce an initial intervention, government planners need some scope of discretionary power. Policymakers need to be able to impose rules on private persons engaged in voluntary exchange in order to get the desired outcome, which differs from what would have otherwise emerged. Moreover, policymakers must be able to enforce the rules imposed to ensure compliance and to punish deviations. Now, consider what happens when the initial intervention results in unintended consequences and planners choose to impose additional rules in the hopes of addressing these undesirable outcomes. Policymakers must expand the scope of their power to intervene in other areas of economic activity. As the dynamics of interventionism suggest, even what appears to be simple interventions into the market can have a chain of consequences that require subsequent interventions. When this happens the discretionary power of government policymakers expands as planners require additional control and influence to address the new, and unanticipated, consequences of prior interventions.

Appreciating the connection between interventionism and political power has implications for the rule of law as a means of preventing abuses of government power. The rule of law is a legal concept that requires predetermined and binding rules on government actors in order to limit the abuse of arbitrary power. As Hayek pointed out in his 1944 book, *The Road to Serfdom*, economic planning by government policymakers necessarily violates the rule of

law because planners must have discretion to address unforeseeable situations that cannot be anticipated *ex ante*. That is, planning requires that some slack must be left in constraints on policymakers so that they can act to address these unforeseen circumstances as they emerge. This discretion is at odds with the known, predictable, and stable rules required for the rule of law. This slack in the constraints, which will tend to expand as the need to intervene increases, leaves space for abuses of power by those in government.

The power problem will not be an issue if the political process selects only benevolent people to implement and design policies (although even the most benevolent policymakers would still suffer from the knowledge problem). However, there is reason to believe that the nature of planning, combined with the nature of politics, may not result in this first-best outcome. Given what planning entails, successful seekers of government office will be those who are comfortable designing plans based on their preferences and imposing their vision on others who would have pursued different activities if left to their own, voluntary choices. Hayek argued that the very desire of planners to organize life according to a single, overarching plan emerges from the desire for power to control and shape the world according to the planner's vision.

The crucial issue is that interventionism requires that policymakers not just feel comfortable imposing their vision on others, but that they must also be willing to use the threat of force, or force itself, to punish deviations from their plans. This comfort and willingness to resort to force, combined with the slack in constraints on government required for planning in an open-ended and changing economy, threatens the freedoms of private persons. As planning becomes more extensive—as in the case of nationwide planning—there would be a strong tendency, Hayek argued, for the worst members of society to rise to positions of power. His prediction was based on the greater benefits of power associated with controlling a more extensive planning apparatus, as well as the type of personal character that would be required of planners whose success required imposing and enforcing national-level plans on an entire populace. Although Hayek believed this risk was greatest under complete economic planning, it is important to appreciate this concern when considering all forms of intervention. Given what successful planning entails, differences in comprehensive and non-comprehensive planning are matters of degree and not of kind. Therefore, the potential for abuse of coercive power is something that must at least be considered, irrespective of the type of intervention.

When combined, the knowledge and power problems highlight the potential for significant distortions of economic, social, and political institutions. An appreciation of these dual problems is part of the reason that Austrian economists tend to be supportive of the market process and of clear limitations on the ability of government policymakers to intervene into the market. Markets are highly effective in empowering people to resolve the knowledge problem. At the same time, the market process serves as an important constraint on both political and private power over the lives of private persons. Political power is limited because reliance on the market to allocate scarce resources limits the number of economic decisions that policymakers need to make. Private economic power is limited because competitive markets are contestable. This means that, in the absence of government-imposed barriers to competition, even the most well-established and wealthy businesses are subject to constant competitive pressures by entrepreneurs seeking to earn profits. These competitive pressures can come in the form of new entrants into an existing line of business who hope to gain a share of the market, or in the form of innovation that introduces an entirely new good or service.

The potential threat from abuses of power associated with planning is why F.A. Hayek spent a portion of his career exploring various rules to constrain government. He proposed a generality norm, which approximated the rule of law by embodying the principles of equality before the law and impartiality, designed to limit the ability of policymakers to engage in economic planning. In doing so, the norm would also limit potential abuses of power by constraining discretion and preventing policymakers from playing favourites or imposing significant costs on members of minority groups. At the same time, a generality norm would limit private economic power by preventing businesses from currying political favour in order to insulate themselves from competition, which undermines the market process.

When considering different political institutions and policies, appreciating the knowledge and power problems is important for thinking through a range of relevant issues. Rather than assuming that policymakers possess the necessary knowledge to achieve their desired ends, we need to think about the knowledge that is required for success, and whether policymakers have access to that knowledge. An appreciation of economic calculation sharpens our understanding of the unique knowledge that emerges through the market process and the knowledge problem facing policymakers who attempt to plan for superior outcomes.

Moreover, instead of assuming that policymakers are benevolent—both those in power in the present and those who will come to power in the future—we need to study the incentives they face in the design, implementation, and enforcement of policies to ensure there is an alignment between private and public interests. This approach by no means offers answers to all of the questions associated with political institutions and policies, but it does shed light on some of the key issues associated with establishing institutions and policies that improve the well-being of the people who must live under them.

## Chapter 10

# Austrian Economics Yesterday and Today

The body of economic knowledge is an essential element in the structure of human civilization; it is the foundation upon which modern industrialism and all the moral, intellectual, technological, and therapeutical achievements of the last centuries have been built. It rests with men whether they will make the proper use of the rich treasure with which this knowledge provides them or whether they will leave it unused. But if they fail to take the best advantage of it and disregard its teachings and warnings, they will not annul economics; they will stamp out society and the human race.

—Ludwig von Mises (1949), *Human Action*: 885.

The Austrian School of economics has a long and distinguished history. Members of this school have been awarded the Nobel Prize in Economic Science, recognized as Distinguished Fellows of the American Economic Association, elected to the British Academy, served as President of the major scientific associations in economics, edited the major academic journals, and taught at some of the most prestigious universities in the world. Beyond this rich history, the central elements of the Austrian School have contemporary relevance for economic understanding and for public policy.

Economics is fundamentally a human science, meaning that the study of all economics phenomena must be traced to the purposes and plans of individuals. People are embedded in an array of formal and emergent institutions, and Austrian scholars have shed light on the arrangements that advance the human condition. By clarifying the delineation of mine and thine, property rights are

a prerequisite for exchange that is at the foundation of broadening the extent of the market and increasing the creation of wealth. These ownership rights motivate individuals to use their resources in productive manners. The beneficial exchanges that are pursued because of the recognition of opportunities for mutual gain result in settled terms of exchange that are expressed in market prices. These prices, in turn, allow economic actors to engage in economic calculation to determine how to allocate scarce capital goods to produce outputs valued by consumers. Profit and loss serve as crucial feedback to entrepreneurs, informing them whether their judgments about the use of scarce resources reflect the wants of consumers. By enabling economic actors to sort through the array of alternative uses of scarce resources, the market process allows for the complex coordination of economic activities through time that delivers generalized material progress.

Even the most well-intentioned and limited government interventions into the market are troublesome because they distort the market process. By distorting prices and profit and loss, interventions distort the signals sent to entrepreneurs that, in turn, adversely affect the capital structure and the outputs ultimately produced. One example is bank-induced credit expansions, which reduce the interest rate and change the production plans of entrepreneurs by distorting the perceived profitability of more roundabout production processes. Because this intervention distorts the economic signals sent to entrepreneurs, it results in an allocation of resources that does not align with the underlying preferences of consumers. This malinvestment eventually results in a bust because of the disjoint between entrepreneurial decisions, as a result of the artificially low interest rate, and actual consumer preferences. As the Austrian theory of the business cycle illustrates, interventions into the market process have real effects that can adversely affect human welfare.

Another issue with government intervention is that it grants significant power to policymakers. While this power can potentially be used for good, it can also be used to engage in opportunistic behaviour that benefits a few at the expense of the many. When this happens, the desirable consequences of the market process are dampened, if not altogether eroded. Cronyism, the entanglement of private and political actors, is perhaps the most relevant contemporary example of this logic: where private actors can partner with the

political elite, they are able to establish barriers that undermine the competitive market process. This weakens the ability of the market process to generate widespread improvements in human welfare.

The central mystery of economics is how the market society achieves social cooperation and economic coordination without central command. The answer to this mystery can be found in the main tenets of the Austrian School of economics, which remain as relevant today as when they were first introduced.





## Suggestions for Further Reading

The writings of scholars working in the Austrian tradition are vast and diverse. Below is a list of suggested readings for those interested in learning more about the ideas in this book. The list is broken into three sections. For each reading the original date of publication is listed and within each category the readings are organized chronologically, from earliest to most recent.

The first contains suggestions for people whose only exposure to Austrian economics is this book. The second part contains suggestions for readers who have some background or exposure to economics, and Austrian economics, beyond this monograph. This section contains a list of biographies of Austrian economists, to give context to the lives and work of the main Austrian scholars, as well as a list of general books on Austrian economics. The third section offers suggestions for the more advanced reader and is broken down by chapter topic in this book. This way the reader can seek out more in-depth analysis and discussion of specific topics that they find of interest.

### For the beginner

Peter J. Boettke. *Austrian School of Economics*. In the Library of Economics and Liberty. <<https://www.econlib.org/library/Enc/AustrianSchoolofEconomics.html>>.  
 Randall Holcombe (2014). *Advanced Introduction to the Austrian School of Economics*. Edward Elgar.

### For the intermediate reader

#### ***Biographies of Austrian economists***

Randall Holcombe, ed. (1999). *15 Great Austrian Economists*. Ludwig von Mises Institute.  
 Bruce Caldwell (2004). *Hayek's Challenge: An Intellectual Biography of F.A. Hayek*. University of Chicago Press.  
 Israel Kirzner (2001). *Ludwig von Mises: The Man and His Economics*. ISI Books.  
 Jörg Guido Hülsmann (2007). *Mises: The Last Knight of Liberalism*. Ludwig von Mises Institute.

### **General books on Austrian economics**

- Gerald O’Driscoll (1977). *Economics as a Coordination Problem: The Contributions of Friedrich A. Hayek*. Sheed Andrews and McMeel.
- Peter J. Boettke, ed. (1994). *The Elgar Companion to Austrian Economics*. Edward Elgar.
- Peter J. Boettke, ed. (2010). *Handbook on Contemporary Austrian Economics*. Edward Elgar.
- Robert Murphy (2015). *Choice: Cooperation, Enterprise, and Human Action*. The Independent Institute.
- Gerald O’Driscoll and Mario Rizzo (2014). *Austrian Economics Re-Examined: The Economics of Time and Ignorance*. Routledge.
- Peter J. Boettke (2019). *F.A. Hayek: Economics, Political Economy, and Social Philosophy*. Palgrave MacMillan

### **For the advanced reader (by chapter topic)**

#### **Methodological principles**

- Carl Menger (1871/1981). *Principles of Economics*. New York University Press.
- Carl Menger (1883/1985). *Investigations into the Method of the Social Sciences*. New York University Press.
- Friedrich von Wieser (1927/2003). *Social Economics*. Adelphi.
- Ludwig von Mises (1949/2007). *Human Action: A Treatise on Economics* (four volumes). Liberty Fund.
- Ludwig von Mises (1957/2005). *Theory and History: An Interpretation of Social and Economic Evolution*. Liberty Fund.
- Israel Kirzner (1960/2009). *The Economic Point of View*. Liberty Fund.
- Ludwig von Mises (1962/2006). *The Ultimate Foundations of Economic Science: An Essay on Method*. Liberty Fund.
- Murray Rothbard (1962). *Man, Economy and State: A Treatise on Economic Principles* (two volumes). D. Van Nostrand.

#### **Economic calculation**

- Ludwig von Mises (1920/1975). Economic Calculation in the Socialist Commonwealth. Republished in Friedrich A. Hayek, ed., *Collectivist Economic Planning* (Kelley Publishing): 87–130.

Ludwig von Mises (1922/1981). *Socialism: An Economic and Sociological Analysis*. Liberty Fund.

F.A. Hayek (1948). *Individualism and Economic Order*. University of Chicago Press.

Ludwig von Mises (1949/2007). *Human Action: A Treatise on Economics* (four volumes). Liberty Fund.

Don Lavoie (1985). *Rivalry and Central Planning: The Socialist Calculation Debate*. Cambridge University Press.

Jesús Huerta de Soto (1992). *Socialism, Economic Calculation, and Entrepreneurship*. Edward Elgar.

### **Capital and the structure of production**

Carl Menger (1871/1981). *Principles of Economics*. New York University Press.

Eugen Böhm-Bawerk (1884/1890) *Capital and Interest: A Critical History of Economic Theory*. Macmillan.

Ludwig Lachmann (1956). *Capital and its Structure*. Sheed Andrews and McMeel.

Peter Lewin (1999). *Capital in Disequilibrium*. Routledge.

### **The market process**

Israel Kirzner (1963). *Market Theory and the Price System*. Van Nostrum.

Israel Kirzner (1973). *Competition and Entrepreneurship*. University of Chicago Press.

Ludwig Lachmann (1977). *Capital, Expectations, and the Market Process*. Sheed Andrews and McMeel.

Israel Kirzner (1992). *The Meaning of the Market Process: Essays in the Development of Modern Austrian Economics*. Routledge.

Esteban Thomsen (1992). *Knowledge and Prices: A Market-Process Perspective*. Routledge.

### **Spontaneous order**

F.A. Hayek (1973). *Law, Legislation, and Liberty, Volume 1: Rules and Order*. University of Chicago Press.

F.A. Hayek (2014). *The Collected Works of F.A. Hayek, Volume 15: The Market and Other Orders*. Bruce Caldwell, ed. University of Chicago Press.

### **Interventionism**

Ludwig von Mises (1929/2011). *Interventionism: An Economic Analysis*. Liberty Fund.

Ludwig von Mises (1944). *Omnipotent Government: The Rise of the Total State and Total War*. Yale University Press.

Murray Rothbard (1970). *Power and Market: Government and the Economy*. Sheed Andrews and McMeel.

Israel Kirzner (1978). *The Perils of Regulation*. Law and Economics Center, Miami School of Law.

Sanford Ikeda (1996). *Dynamics of the Mixed Economy: Toward a Theory of Interventionism*. Routledge.

### ***Business cycles***

Ludwig von Mises (1912/1981). *The Theory of Money and Credit*. Liberty Fund.

F.A. Hayek (1929/1966). *Monetary Theory and the Trade Cycle*. Augustus M. Kelley Publishing.

F.A. Hayek (1931). *Prices and Production*. Routledge.

F.A. Hayek (1941). *The Pure Theory of Capital*. Macmillan.

Ludwig von Mises (1949/2007). *Human Action: A Treatise on Economics* (four volumes). Liberty Fund.

Murray Rothbard (1963). *America's Great Depression*. D. Van Nostrand.

Roger Garrison (2000). *Time and Money: The Macroeconomics of the Capital Structure*. Routledge.

Steven Horwitz (2000). *Microfoundations and Macroeconomics: An Austrian Perspective*. Routledge

### ***Planning and the power problem***

F.A. Hayek (1944). *The Road to Serfdom*. University of Chicago Press.

F.A. Hayek (1960). *The Constitution of Liberty*. University of Chicago Press.

Don Lavoie (1985). *National Economic Planning: What is Left?* Ballinger.

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