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FRANK FETTER AND THE AUSTRIAN TRADITION IN THE UNITED STATES

*Matthew McCaffrey, assistant professor of enterprise at the University of Manchester, explores the economic and political work of the "forgotten giant" of economics, the Indiana-born **Frank Fetter**. At the height of his career in the early 20th century, Fetter was one of the most respected, cited, and debated economists in the United States. He taught for over 40 years at prestigious universities, including Stanford, Cornell, and Princeton, and his research appeared in practically every major publication in economics and political science. Yet today he is virtually forgotten outside a small group of Austrian economists. In his opening essay, McCaffrey explores two aspects of his thought in particular: his contributions to theoretical economics and their relationship to Austrian ideas, and his political views as they relate to the philosophy of classical liberalism. He is joined in the discussion by Geoffrey M. Hodgson, Research Professor of Business Studies in the University of Hertfordshire, Peter Lewin is Clinical Professor in the Jindal School of Management, University of Texas, Dallas, and Joseph T. Salerno, professor of economics in the Finance and Graduate Economics Department in the Lubin School of Business of Pace University in New York.*

FRANK FETTER AND THE AUSTRIAN TRADITION IN THE UNITED STATES

by Matthew McCaffrey

Frank Albert Fetter is not a household name, even in the most economical homes. Yet at the height of his career, Fetter was one of the most respected, cited, and debated economists in the United States. He taught for over 40 years at prestigious universities, including Stanford, Cornell, and Princeton, and his research appeared in practically every major publication in economics and political science. His lifetime of work in service to the social sciences earned him, amongst other accolades, four honorary doctorates and the presidency of the American Economic Association. Perhaps most important of all, throughout his extraordinarily productive career, there was scarcely an eminent economist in the world with whom he failed to cross paths—or swords.[1]

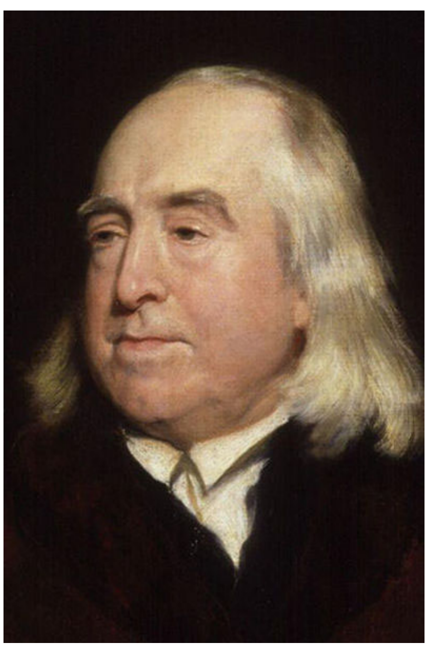
Today, however, Fetter is a "forgotten giant" of economics, and sadly, the profession whose growth he worked so hard to foster has little use for his ideas. (Herbener 1999) Nevertheless, a growing number of economists have been working since his death to preserve his legacy and to build on it. These economists are mostly associated with the Austrian school of economics, of which Fetter is sometimes considered an American member.

"TODAY, HOWEVER, FETTER IS A "FORGOTTEN GIANT" OF ECONOMICS..."

Although he eschewed such labels, Fetter was closely engaged with the Austrians for over 50 years, and his list of friends and colleagues included Eugen von Böhm-Bawerk, Gottfried Haberler, Henry Hazlitt, W.H. Hutt, Fritz Machlup, Hans Mayer, Carl Menger, Ludwig von Mises, Oskar Morgenstern, Joseph Schumpeter, and Friedrich von Wieser. (McCaffrey 2019) The following essay considers his contributions mainly in light of his long history with the Austrian school, but Fetter's work also remains relevant for many other traditions and fields of study. I explore two aspects of his thought in particular: his contributions to theoretical economics and their relationship to Austrian ideas, and his political views as they relate to the philosophy of classical liberalism.

Value, Price, and Distribution

Fetter is remembered first and foremost as an economic theorist. His early career in particular was spent developing an original and systematic treatment of economics, which he expounded in two popular textbooks and dozens of journals articles and reviews. (Fetter 1905a, 1915, 1977) His ambitious project consisted of nothing less than a complete reformulation of the theories of value, price, and distribution along subjectivist lines and at the same time, a complete purge of classical theory from economics, especially its Benthamite and Ricardian elements. In this effort Fetter was most influenced by the Austrians and by his fellow American John Bates Clark, to whom he jointly credited the insights of the marginalist revolution. (Fetter 1923a) Fetter wanted to take the revolution a step further, however, by providing a more complete account of income distribution free of all cost-of-production and productivity theories, as well as from hedonistic psychology.



Jeremy Bentham

In addition to carrying Austrian and Clarkian economics forward, Fetter's theoretical writings were motivated by two practical goals: simplifying economic terminology and bringing economic definitions more in line with their common-language uses. He argued repeatedly that problems in both areas were responsible for shunting economic theory onto unproductive and unrealistic tracks. Fetter's critiques of classical distribution theory offer many instructive examples, perhaps the most important being the Ricardian concept of rent, which artificially restricted rents to payments for the use of land, whereas a more subjectivist approach implied that a payment for the use of *any* productive factor is a rent.

Fetter began from the basic facts of value and choice, putting volition at the center of value theory rather than the classical utilitarian pleasure-pain calculus or assumptions about Economic Man. In particular, he developed a consistently subjectivist approach to economics based on the concept of "psychic income," that is, each person's estimate of the importance of alternative actions.[2] (Fetter 1915, 27) This lay at the root of the theory of income distribution, which starts with the appraisal of consumer goods and eventually extends to the entire structure of production, providing a unified account of all factor prices and incomes based on individual valuation.[3]

Since Adam Smith, the framework for understanding distribution had been the tripartite distinction among the factors of production (land, labor, and capital) and their respective returns (rent, wages, and interest). Fetter's mission was to dismantle this distinction and clarify the true causes of each income type. The major obstacle in his path was the classical theory pioneered by Ricardo and later adopted, with revisions, by Mill, Marshall, and their British and American followers.[4]

Rather than grouping factors of production in terms of their physical traits, Fetter's divided factors and their incomes according to the way in which they appeal to human wants. Valuation occurs in three phases: for consumer goods, as explained through marginal utility; for the uses of present durable goods, as explained by the theory of rent; and for the present value of future goods, as explained by the theory of interest. (Fetter 1904) Each of these phases can be ultimately traced to individual valuation. Valuation extends from consumption goods to the uses of durable factors through *capitalization*, in which the total stream of income from a factor is summed into its rental price. This price is then discounted according to time preference, the fundamental source of interest payments. The result is a rental price for a unit service that reflects the productivity and the time value of the factor and links them to consumer wants. Banished from this system are all traces of classical cost-of-production theories and the productivity theory of interest.

Fetter's thoroughly subjectivist account of economics helps explain why from his earliest writings he was considered an American representative of the Austrian school and why throughout his career, Austrians young and old looked to him for friendship as well as for professional insight. Despite his formative influence on Austrian thought, however, Fetter's reputation declined substantially during the interwar period. (McCaffrey 2019) It might have disappeared entirely if not for the efforts of Ludwig von Mises, who placed Fetter's work at the heart of several important discussions in *Nationalökonomie* and *Human Action* [Mises 1998 [1949], particularly those on capital and interest. Most important, Mises embraced Fetter's pure-time-preference theory of interest and used it to further develop his own ideas about distribution and business cycles. So enthusiastic was Mises that he wrote to Fetter to explain that "[i]n these last months I have reread your contributions on the theory of interest. It is my firm opinion that they are more important than any other contribution on the subject since Böhm-Bawerk. I am indebted to them." (Mises 1938) Mises's admiration for Böhm-Bawerk only underscores the importance of his praise.

Murray Rothbard's account of income distribution in *Man, Economy, and State* is likewise thoroughly Fetterian, and draws on the pure-time preference theory as well as Fetter's theory of rent. (Rothbard 2009, lvi-lvii). Rothbard ambitiously combined these elements with insights from Austrian and mainstream economics to produce perhaps the first systematic treatise in the Austrian tradition since Fetter's own textbooks. (Salerno 2009).[5] This is a noteworthy example of a chain of influence across several generations of economists, from the early Austrians and Clark to Fetter and then on to Mises, Rothbard, and contemporary work (e.g., Lewin and Phelan 1999, McCaffrey 2016).

Murray N. Rothbard

Despite its originality and consistency, Fetter's distribution theory has its quirks and idiosyncrasies, some of which are controversial even among his admirers.[6] For example, his attack on what he viewed as the artificial distinction between land and capital eventually led him to argue that there is no economic distinction between nature-given and manmade factors at all: both are durable productive resources that satisfy present and future wants. Similarly, Fetter rejected the standard definition of capital as the produced means of production and advanced his own definition in which capital is "the market value expression of individual claims to incomes." This value is "the sum, in terms of dollars, of … the worth of all available and marketable intangibles … as well as the worth of claims to the uses of physical forms of wealth." (Fetter 1930-1935 [1977], 149) With both land and capital, Fetter offered original conceptions of long-debated economic terms, and his views provide the basis for much fruitful discussion; the value of his unique approach, however, is only beginning to be understood and incorporated into new research. (Hodgson, 2008)

The Arrested Development of Economic Theory

Fetter's views on the history of economic thought likewise deserve renewed attention. These are scattered throughout a wide range of published and unpublished writings, yet taken together, they provide a deep and distinctive outlook on the development of modern economics that is particularly important for critics of the mainstream profession. For Fetter the modern history of economics was a chronicle of frustrated hopes and blind alleys. The most important single factor in charting its progress—or lack thereof—was the persistence of key elements of classical theory.

Frank Fetter

Fetter repeatedly argued that the promise of the marginal revolution was never fully realized. In fact, he believed "marginalist revolution" was a misnomer: the true revolution lay in *subjectivism*, not marginal analysis as such. He was especially skeptical of the idea that the most important insights of the revolution, and of the Austrian school, were quickly and fully incorporated into economics via Marshall. Although the subjective-value revolution did much to overturn classical distribution theory, Ricardian economics never truly disappeared and through the work of Marshall, Frank Taussig, and others, survived and thrived, eventually bringing many of the subjectivists' efforts to ruin.

Monopoly in Theory and Practice

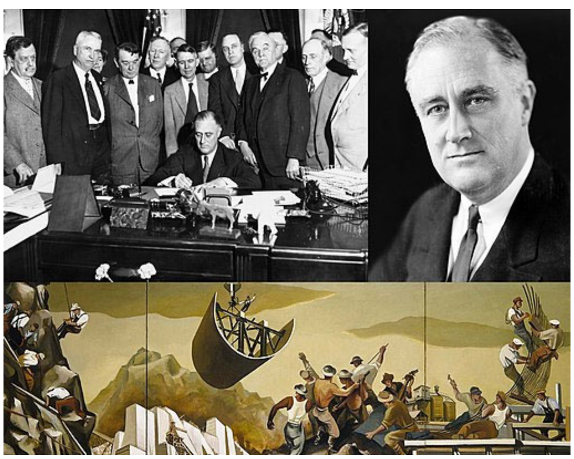
Any account of Fetter's contributions must acknowledge his work on monopoly, which consumed most of his time from the 1920s until the end of his life and is truly multidisciplinary, drawing on arguments from economics, politics, history, law, and public policy (e.g., Fetter 1931 [1977]) In economic theory, Fetter advanced an original account of the spatial aspects of monopoly pricing that he referred to as "the economic law of market areas." (Fetter 1924) He was also the mentor of economist Vernon Mund, who did more than anyone else in the interwar period to develop Menger's monopoly theory, thus providing another link between Fetter and the Austrians. (Salerno 2004)

Fetter's writings, however, are mainly devoted to analyzing specific monopolistic practices. The most important target of his criticism by far was the basing-point system of delivered prices, a form of local price discrimination in which customers are charged transportation costs from a chosen "basing point," regardless of where the goods actually originate. (Fetter 1931, 1948) Fetter came to believe that basing-point prices were the most important tool of monopolization, and he viciously attacked them in every forum in which he could receive a hearing. It is actually difficult to overstate his hostility to the basing-point system. Strangely though, this aspect of his career has gone unnoticed in contemporary research, even though other figures in and around the Austrian school were fascinated by the same problem, including Fritz Machlup, who wrote a book (1949) about it.

The Fortunes of Progressive Liberalism

Fetter's politics have recently aroused interest as part of a larger discussion of the history of economics in the Progressive Era. Thomas Leonard, for example, notes that it is ironic that Fetter, long associated with the Austrian school, held a number of progressive views that clashed sharply with the liberalism of writers like Mises and Hayek. (Leonard 2016, 164-65) It is therefore worth saying something about Fetter's ideological viewpoint and its relationship to public policy.

Fetter's views can only be described as paradoxical: he loved capitalism but opposed laissez faire; embraced cosmopolitanism but supported immigration restrictions; rejected racial prejudice but recommended policies that would institutionalize and enforce it.[7] Consequently, there is no convenient party label for Fetter, and he used a variety of terms to describe himself, including "liberal," "progressive," and "progressive liberal," but also "staunch liberal" and "dyed-in-the-wool liberal." These terms help to highlight the peculiarities of his views, which were jointly influenced by progressivism and liberalism. For example, Fetter was close to several of the major progressive economists in America, especially Richard T. Ely, Edward A. Ross, and John R. Commons. He embraced their general view that economic experts should help guide public administration, thereby limiting the excesses of laissez faire, as well as some of their specific policies relating to immigration restrictions and eugenics. (Fetter 1913, 1925, 1938). On the other hand, he was a firm advocate of free trade, free markets, and the power of competition to promote social progress, whose greatest enemies were monopoly and big business.



New Deal

Despite these contradictions, Fetter did have a strong liberal streak. In his later years, for example, he became a vocal critic of the New Deal, especially its emphasis on price controls, special privileges, and other tools of monopolization and cartelization. Throughout the Depression years he warned of the dire threat that the regime posed to American capitalism, which was being transformed into a system of "corporationism." Supported by special privileges and government refusal to enforce the antitrust laws, large businesses were free to act like monopolists, and wealth and ownership were increasingly concentrated in a small number of hands. For Fetter this meant a march toward fascism and economic control, and his only solution was a return to competition, especially through the rule of the antitrust laws, which he held to be consistent with liberal principles. (Fetter 1935)

Like many economists influenced by progressivism, Fetter did not view social science as an abstract exercise or as a search for knowledge for its own sake; instead, the power of economics lay in its ability to explain the world and inform sound public policy for the good of society at large. Even Fetter's more theoretical writings showcase a deep concern for social welfare and the importance of assigning it a central role in political economy; in fact, Fetter praised the Austrians—Böhm-Bawerk and especially Wieser—for pioneering working along these lines. (Fetter 1923a, 1923b)

Conclusion

Fetter's tireless efforts to develop subjectivist economics place him squarely in the causal-realist tradition of Carl Menger, with its emphasis on discovering the fundamental causal laws of economics and describing them rigorously and realistically. However, Fetter was suspicious of labels and attempts to pigeonhole his ideas. His view is reminiscent of Schumpeter's quip that "only fish swim in schools." Yet no matter how we describe his work, it is clear that he "erected a building that was his own." (Schumpeter 1954, 874), an intellectual edifice that remains impressive to this day. On the rock of subjective value he built a church of price and distribution theory against which the gates of Ricardian-Marshallian doctrine could not prevail. For this, modern economists owe him a great debt.

Endnotes

[1.] There are many studies of Fetter's life and work, including general surveys (Stanley and Kemmerer 1943, Rothbard 1987, McCaffrey 2019), descriptions of his system (Coughlan 1965, Rothbard 1977, Herbener 1999), and studies of specific contributions (O'Driscoll 1980, Herbener 2011, McCaffrey 2016). The OLL hosts a bibliography of Fetter's works at: https://oll.libertyfund.org/pages/frank-a-fetter-a-bibliography.

[2.] Fetter believed that the Austrians, especially Menger, Böhm-Bawerk, and Wieser, had taken pioneering steps in this direction but that they had been stymied by a reluctance to discard the remnants of utilitarian psychology. Nevertheless, Fetter also believed that much of the confusion was due to faulty English translations of early Austrian writings, which had made them appear more utilitarian than they actually were. (Fetter 1926)

[3.] Fetter's first textbook (1905a) presented what he considered the conventional Austrian view of value and price rather than a revision of it (Fetter 1905b), which he only developed gradually in the years that followed.

[4.] Fetter was a sharp theorist but also—and more rare by far for an economist—a keen wit. He describes Mill's distribution theory as "a complex scheme of explanation of prices, wages, rents, etc., which looked like a badly dilapidated Ricardian just released from the hospital." (Fetter 1923a, 599)

[5.] Mises provided an extensive account of economic theory in *Human Action*, but also assumed a good deal of knowledge on the part of his readers and therefore passed over some key elements of price theory.

[6.] Some of these idiosyncrasies are criticized in Rothbard (1977).

[7.] Fetter helped to found Cosmopolitan Clubs at several U.S. universities, and on his recommendation the association of clubs adopted as a general motto the words of Goldwin Smith: "above all nations is humanity."

FRANK FETTER AND THE HISTORICALLY SPECIFIC MEANING OF CAPITAL

by Geoffrey M. Hodgson

The work of Frank Fetter is important for a number of reasons, and Matthew McCaffrey (2019a, 2019b) has done an excellent job in showing why Fetter's work has roots in both the Austrian school and the original institutional economics. This important combination of influences makes Fetter's work both distinctive and invaluable. McCaffrey has also made a major contribution by bringing extensive archival research on Fetter to the table. Fetter's insights can be incorporated with great benefit by Austrian and institutional economists. In this comment I supplement McCaffrey's research by stressing that Fetter's critique of standard capital concepts in mainstream economics is of vital importance. Austrian economists – as well as others – should consider taking Fetter's insights on board.

In brief, Fetter (1927, 1930) rejected the concept of capital that most economists had adopted since Adam Smith. He urged a return to the original, monetary-accounting meaning, which is still in use in businesses today. This meaning had emerged by the 13th century with the rise of commerce and finance in Italy. Fernand Braudel (1982, 232-33) pointed out that the word *capitale* was in use in Italy in 1211 and is found from 1283 "in the sense of the capital assets of a trading firm." The word gradually came to mean the "*money* capital of a firm or of a merchant," and it spread through Western Europe. This monetary-accounting meaning of capital became firmly established in the rising market and financial systems throughout Europe. This meaning is still prevalent in business and accounting circles today.

Adam Smith

But economists and sociologists have radically changed their usage of the term. Adam Smith (1776) started the process. Edwin Cannan (1921, 480) noted Smith's "very serious departure from the conception of capital which had hitherto prevailed: Instead of making the capital a sum of money which is to be invested, or which has been invested in certain things, Smith makes it the things themselves. Instead of being a sum of money expended on the acquisition of stock, it is part of the stock itself." Smith was largely responsible for a decisive shift away from a monetary-accounting view toward a notion of capital as physical things.

This physicalist view of capital pervades contemporary mainstream, heterodox, and Austrian economics. Taking a cue from Smith, economists developed the concept of human capital. (Fisher 1897, Becker 1964) Sociologists have widened its meaning still further to include anything that has durability and utility – including the concept of "social capital." (Bourdieu 1986, Coleman 1990) Capital has become a general and historical concept referring to any durable asset or form of wealth.

Critics of this shift away from the monetary-accounting view of capital are a small minority of economists, but they include major names such as John A. Hobson, Werner Sombart, Max Weber, Alfred Mitchell Innes, Frank Fetter, and Joseph A. Schumpeter. (Hodgson 2014, 2015a) Among them, Fetter (1927, 156) strongly attacked the physical view of capital:

> Capital is essentially an individual acquisitive, financial, investment ownership concept. It is not coextensive with wealth as physical objects, but rather with legal rights as claims to uses and incomes. It is or should be a concept relating unequivocally to private property and to the existing price system.

Accordingly, for Fetter (1930, 190), capital is a historically specific phenomenon:

> Capital is defined as a conception of individual riches having real meaning only within the price system and the market where it originated, and developing with the spread of the financial calculus in business practice.

Further archival scholarship may reveal more on the inspirations for Fetter's stance in favor of a monetary view of capital. One possible inspiration is Schumpeter (1954, 323), who wrote:

> What a mass of confused, futile, and downright silly controversies it would have saved us, if economists had had the sense to stick to those monetary and accounting meanings of the term instead of trying to "deepen" them!

The historical specificity of the capital concept is also evident in writing in the German historical school. For example, Werner Sombart (1902, vol. 2, 129) recognized that capital is a phenomenon found in specific historical epochs and defined it as "the sum of exchange value which serves as the working basis of a capitalist enterprise."

Max Weber's position resembles that of Sombart. In his *Economy and Society,* Weber (1968, vol. 1, 91) wrote that "'Capital' is the money value of the means of profit-making available to the enterprise at the balancing of the books." For Weber, "capital" was expressed in monetary units in an era of rational accounting based on monetary measurement.

Max Weber

By contrast, Austrian school theorists such as Eugen von Böhm-Bawerk (1890, 6) saw capital in physical terms, as a "complex of goods that originate in a previous process of production, and are destined, not for immediate consumption, but to serve as means of acquiring further goods." There is no mention of money here. The focus is on physical goods that are used to produce more goods. Friedrich Hayek (1941) made another major contribution to capital theory. His view of capital was also one of physical factors of production. Much of Hayek's *Pure Theory of Capital* uses the abstraction of an economy without money. Consequently, Austrian capital theory is dominated by conceptions of capital as physical stuff.

The big exception, however, is Carl Menger. After publishing his influential work on the principles of economics in 1871, Menger modified his position on several things, including his view of capital. (Menger 1871, 1888; Braun 2012, 2017) Menger eventually gave much greater recognition to the historical specificity of capitalist institutions, and he rooted concepts such as *capital* in historically specific institutions rather than defining it in ahistorical terms.

Menger (1888, 6) argued that economists should not disregard everyday business meanings of terms such as *capital:* "a mistake that cannot be disapproved of enough when a science … denotes completely new concepts by words that, in common parlance, already describe a fundamentally different category of phenomena – a category that is also important for the respective discipline – correctly and properly." (Trans. Braun 2015, 83) Several other prominent economists and philosophers have similarly warned of this danger in making alien definitions of standard concepts. Because science is a social process, due respect should be made to everyday meanings. (Hodgson 2019a)

Menger (1888, 40) made his own position clear: "The realistic notion of capital comprises all assets of a business, of whichever technical nature they may be, in so far as their monetary value is the object of our economic calculations, i.e., when they calculatorily constitute sums of money for us that are dedicated to the acquisition of income." (Trans. Braun 2015 90) Consequently, Menger ended up with a historically specific and monetary-accounting view of capital in contrast to the physicalist view of the majority of economists.

Eduard Braun (2015) showed that Menger's mature view of capital mildly influenced others in the Austrian school, including Mises. But the outcome was that Mises contradicted himself to a degree while retaining a dominant ahistorical and highly generalist stance. By contrast Schumpeter (1954, 899) fully endorsed Menger's change in position.

As Braun (2015, 2017) pointed out, the view of capital as money-value advanced for investment and production dovetails completely with Austrian arguments concerning the importance and meaningful economic calculation through the price mechanism. (Hayek 1935) Hence capital is both the expression and an instrument for the creation of money-values in the historically specific type of economic system known as capitalism. (Hodgson 2014, 2015a) This monetary-accounting view of capital augments the Austrian emphasis on meaningful calculation of prices through interactions between agents in a market economy.

For most economists outside the Austrian school, an ahistorical and physicalist view of capital and the failure to appreciate the nature and importance of the socialist-calculation debate are linked. (Hodgson 2019b, 2019c) The physicalist view of production masks the importance of monetary calculation and its role in decision-making and individual incentivization. The Austrian position on this would be further enhanced by fully acknowledging and rehabilitating Menger's mature view of capital alongside Fetter's similar insights in this area.

Fetter's advice that we should drop the post-Smithian distortion of the capital concept and instead understand capital as an historically specific category, rooted in the financial institutions of modern market economies, is well worth following. McCaffrey is to be commended for reminding us of Fetter's importance.

FETTER ON THE MEANING OF *PRICE*, *MARKET*, AND *EQUILIBRIUM*

by Joseph T. Salerno

In his erudite essay on Fetter's contributions and relationship to the Austrian tradition, Matt McCaffrey points out an important but heretofore little-noted feature of Fetter's theoretical work, namely, that it was "motivated by two practical goals." These are, according to McCaffrey, "simplifying economic terminology and bringing economic definitions more in line with their common-language uses." This is my point of departure in this comment. I will argue that by rigorously defining a few basic terms in economics, Fetter clarified the foundations of the causal-realist approach to price theory pioneered by Menger.

What Is a Price?

Fetter (1915, 45-46) was keen to formulate a rigorous and realistic definition of price because "to understand the general nature of all price movements and the principles determining all prices ... is a large part of the task of economic study." Fetter (1915, 55) viewed the "price" to be explained by economic theory as "the actual price, which is the market price at that time and place." The actual price is therefore a brute fact of history, an *event* occurring at a specific moment in time as the outcome of interaction among specific persons. For Fetter (1912, 809), therefore, the definition of *price* "should be, as far as possible, objective and be expressed in terms of concrete experience."

In his pursuit of a realist definition of *price*, Fetter (1912) wrote a long article, entitled "The Definition of Price," in which he surveyed and classified 117 definitions of price presented by authors writing in English, German, and French. He began with Adam Smith's definition of *price* and extended his survey through the first decade of the 20th century. Fetter (1912, 809) dismissed five of the six classes of definitions that he identified because they failed to define *price* "in terms of the thing given in exchange, one of the most familiar, the most concrete, and the most simple facts in modern man's economic experience." Fetter (1912, 812) was especially adamant that *price*, even when expressed in monetary units, was not an abstract quantity or ratio without reference to real things, insisting:

> [I]t is necessary to indicate in concrete terms *in every case* ... the kind and quantity of goods comprising price.... No abstract quantitative expression of price has any meaning. The price is so many or so much—what? and for what measure? Wheat is so many cents per bushel, cloth so many pence per yard.[8]

Fetter (1912, 812) thus concluded by endorsing Menger's realist definition of *price*:

> Price is the quantity of goods given or received in exchange for another good. We can hardly improve upon Menger's wording: "Prices are the quantities of goods appearing in exchange": (though we might add) when viewed as payment for the goods against which they are exchanged.[9]

It is noteworthy that both Mises and Rothbard followed in the causal-realist Mengerian tradition of defining *price* as concrete quantities of goods actually exchanged. For Mises (1998, 390):

> The market price is a real historical phenomenon, the quantitative ratio at which at a definite place and at a definite date two individuals exchanged definite quantities of two definite goods.

Rothbard (2009, 103, 234) formulated his definition so as to leave no doubt that "price" derived from the actual rate of exchange between two concrete goods:

> If two cows exchange for 1,000 berries, then the *price* of the cow in terms of berries ... is 500 berries per cow.... The *price* is the rate of exchange [two cows for 1,000 berries] between two commodities expressed in terms of one of the commodities.... Now suppose, that in a money economy, three horses exchange for 15 ounces of gold (money). The *money price* of horses in this exchange is *five ounces per horse.* [Emphases in the original.]

What Is a Market?

For Fetter, a market cannot be defined without reference to the concept of *price*. Price and market are inextricably intertwined. The market refers essentially to the subjective factors that cause the coming into being of the objective phenomenon of price. As Fetter explained (1915, 60):

> The very essence of the idea of the market is the meeting of minds in agreement on price. Within a group of buyers and sellers thus meeting, one price prevails at least for a moment.

Although they are cause and effect, market and price exist contemporaneously. Without a market there is no price and without a price there is no market. Just as market is the cause of price, so price is the proof of market. According to Fetter (1915, 59):

> So far as there is truly a meeting of minds, all trades taking place at any one time are at the same ratio. It is the essential proof of a true market that there is but one price at any moment.

Fetter (1915, 58) emphasized that physical proximity of buyers and sellers is not a requirement of a market as long as they are all "in communication, so that there can be a common understanding between them." Furthermore, because each market is constituted by a "meeting of minds," a market, like its price, is a historical event that exists in time and has a beginning and an end. For Fetter (1915, 68), a temporal succession of different prices of a given good evinces not a changing market but a succession of *different* markets, comprising changed valuations, endowments of goods, and choices of market participants:

> Price seems to be a continuous fact, altho [sic] there is properly speaking no continuous price: there is merely a succession of separate prices, as shown by the trades from moment to moment. We watch price change as in a moving picture made up of many instantaneous photographs.... Trade and succession of prices appearing are the index and the resultant of the continuous changes in the economic conditions, desires and choices of the members of the community.

These considerations led Fetter (1915, 59) to define "a complete or typical market" as "a group of closely communicating traders whose valuations however diverse before they meet, unite for a moment into a single price (as regards the goods actually traded)." Thus, for Fetter, the "law of one price" is the logical implication of an actual market and not merely an equilibrating tendency.

Fetter addresses the concept of an "imperfect market" in which "different prices may exist at the same moment near each other." But this does not upset the law of one price. Fetter (1937a, 493-95; 1915, 60) attributes what he calls "the apparent non-uniformity of market prices" exclusively to cases of mistaken identity on the part of the observer. Retail, wholesale, and large jobbers' markets may be misidentified as a single market. Exchanges taking place at off-market prices may involve special favors or gifts. Physically identical goods for which non-uniform prices are paid may themselves be non-uniform, differentiated by locational convenience, sellers' reputation, customer service, etc. Finally sellers and buyers may temporarily lose communication with one another resulting in wildly divergent prices when "the market has all gone to pieces," as happens in the frenzy to liquidate assets during a financial panic.

A certain ambiguity, however, arises when Fetter (1915, 65) discusses "trading outside of the market." According to Fetter (1915, 66), if someone who, "failing to realize his possibilities," trades in isolation from the body of the market, then what we would today call a "false trade" may occur causing the "actual" market price to deviate from the "logical" or "theoretical" market price. But this does not contradict the tight logical nexus that Fetter establishes between a single price and a single market. For the fact that an individual, due to ignorance, fails to communicate with all but one other trader, means that he is not part of the momentary "meeting of the minds" that constitutes a complete market and determines the actual market price. Hence, it is irrelevant that he does not pay the same price as the "market price" or that the actual market price is different from a counterfactual theoretical market price that does include his valuations. As Fetter (1915, 66, fn. 5) himself pointed out, "when [the isolated exchange] occurs, there is immediately a new theoretical price," which presumably coincides with the actual market price under factual conditions. Fetter's strong version of the law of one price as the logical implication—rather than merely a tendency—of an actual market stands.

What Is Equilibrium?

The concept of "economic equilibrium" for Fetter (1910, 133) is not just a property of the static state but "must be thought of as present in all dynamic societies." Fetter carefully distinguished among three meanings of the equilibrium. In the first sense, which concerns us here, equilibrium is not an imaginary construct but a real and observable state of rest, the inevitable outcome of the formation of a real market and a real price.[10] It is, wrote Fetter (1915, 67), "[t]he present market price, the equilibrium of buyers and sellers at the moment." By virtually identifying equilibrium with the market price, Fetter is here echoing Menger (1981, 192), who referred to "the prices of goods" as "the symptoms of an economic equilibrium in the distribution of possessions between the economies of individuals."

For Fetter (1910, 133) then:

> Any price, no matter how temporary and unstable, is one that for the moment brings into equilibrium the quantities bought and sold, produced and wanted at that price.

The equilibrium price in this sense is thus the price that exhausts all gains from trade and brings about an end to the market in question and a momentary state of rest. As Fetter (1915, 66) explained, it is

> that price common to all trades at a given moment, at which no less urgent bidder on either side of the market can trade while any more urgent bidder is excluded. Such a price brings the desires underlying demand and supply to an equilibrium; no buyer is willing to bid more and no seller is willing to take less.

In emphasizing the importance of this realistic concept of moment-to-moment equilibrium, Fetter was treading in the path pioneered by Menger and followed by succeeding generations of Austrians. Thus, Böhm-Bawerk (1959, 2: 231) dubbed this concept of exchange equilibrium "momentary equilibrium" and Mises (1998 241), "the plain state of rest." Menger (1981, 188) referred to "points of rest" where "no exchange of goods takes place because an economic limit to exchange has already been reached."

Conclusion

It is clear that Fetter's achievement in rigorously defining the concepts of *price*, *market*, and *equilibrium* and in elucidating their essential unity was based on and significantly advanced Menger's causal-realist approach to price. What is still in question and needs to be carefully investigated by doctrinal scholars is to what extent Fetter directly or indirectly influenced the price theory—aside from interest and rent theory—propounded in the works of Mises (1998), Rothbard (2009), and other modern Mengerian price theorists.[11] For this exciting new research program we have Matt McCaffrey to thank.

Endnotes

[8.] Also see Fetter (1915, 45; 1937a, 482;)

[9.] However, Fetter's addition to Menger's definition in the passage above may not be necessary and may be due to Fetter's reading of the German. In the English-language edition of *Principles* (Menger 1981, 191) originally published in 1950, Menger's definition of *price* is rendered less ambiguously as "the quantities of goods *actually exchanged*." (Emphasis added.)

[10.] For Fetter (1910, 133-34), the second concept of equilibrium was akin to a Marshallian market-day equilibrium, what Fetter called "an abstractly conceivable normal market price, within a brief period, around which actual prices fluctuate in becoming adjusted to the underlying conditions of the period." Fetter (1937b, 517-18) referred to a third concept of equilibrium—like the second, also an imaginary construct—which depicted a long-run equilibrium of the economy as a whole:

> A perfect equilibrium of valuations and of prices is a theoretical ideal, an abstraction never fully realized. It is an end toward which the forces of human desire and choice at each moment are always tending without ever fully attaining.... Each new total set of conditions involves a new theoretically correct equilibrium.

[11.] Rothbard (2009), for example, cites Fetter on leisure, cost, formation of equilibrium price, and monopoly-price theory.

FRANK FETTER AND THE AUSTRIAN THEORY OF CAPITAL

by Peter Lewin

Mathew McCaffrey recent's examination of the work of Frank Fetter, in general and in relation to the Austrian theory of capital (including McCaffrey 2016 and 2019), addresses a valuable neglected part of the history of economic thought. One may hope that owing to his efforts, Fetter's work will become better known, especially among Austrians.

As McCaffrey points out, Fetter's work is remarkable in its simplicity and range, providing a complete and comprehensive account of the theory of income distribution among the owners of productive resources (factors of production). In this he was "more Austrian" than some Austrians themselves (for which reason some indeed see him as an Austrian economist, though he himself eschewed all labels). For example, his theory of capital is completely consistent with the subjectivism of value in a way that Böhm-Bawerk's was not, and it anticipated in every respect later contributions of Mises and Rothbard. In fact, Rothbard's capital theory (2009) is pretty much a reworking and more accessible account of Fetter's capital theory.

In other respects, as McCaffrey points out, Fetter was decidedly un-Austrian, for example in the embrace of Progressive agenda items. In this, as McCaffrey says, Fetter's views remain something of a paradox.

I want here to confine myself to capital theory, the subject I know best in relation to Fetter's work, leaving open the possibility of weighing in on other aspects of this work in future posts. In talking about his capital theory, I want to underline what McCaffrey and others have said, to explain it by expanding on some aspects, and also to suggest some hitherto unnoticed implications.

Capital and Income

In common with Irving Fisher (1906), Fetter's capital theory revolves around the distinction between stocks and flows. Stocks of productive resources, when wisely employed, yield flows of valuable goods and services over time. The purpose of employing productive resources (labor, production goods, natural resources) is to earn an income (profit) from the sale of the valuable goods they produce. Clearly, then, these employed resources derive their value from the income they are expected to produce. The value attributed (imputed) to these productive resources is in fact the "capitalized value" of the income they are expected to produce. In modern terminology we call this the present value of the expected income flow from using the resource combination, or the discounted cash-flow, the NPV (net present value), or alternatively the CV (capital value) of the productive combination (or project or business unit).

This is really a very simple and nowadays familiar conception of how production works. But in the context of Austrian capital theory and capital theory generally, it is notable for a number of important reasons.

1. It is the antidote to two aspects Ricardian economics and all that has descended from it.

A. Cost of production.

First and perhaps most obvious, it disposes of Ricardo's cost-of-production theory of capital. Fetter's theory, like Menger's, is forward-looking. Cost is determined by (subjective) value, the value that consumers put upon the consumption goods produced by the supply-chain of productive resources, not the other way round.

B. Rent.

Second and much less obvious -- and unique to Fetter, though picked up by Rothbard -- Fetter demystifies the theory of rent in the process disposing of the Ricardian theory of rent – which is notable for its capacity to confuse. For Ricardo rent refers to the net earnings landowners receive from the sale of their product; this obviously depends on the productivity of the land in question, giving rise to the concept of differential rent, being that some pieces of land are more productive and scarce than others. In Ricardo, land is the only productive resource whose earnings are determined by "market value." So it is special. By contrast, Fetter uses the word *rent* in a familiar way: as *the payment for "renting" a productive resource.* It is not at all special. It is exceedingly common and essential to understanding capital, income, profits, and interest.

Recall the distinction between stocks and flows. A stock of production goods (raw materials, machinery, buildings, etc.), when wisely employed and combined with land and labor over time, produces a flow of valuable goods for sale. The easiest way to understand rent is to consider the employment of labor. Labor cannot be purchased because, absent slavery, humans beings own themselves. However, labor *services* can be purchased. Labor is rented. The rental rate paid to labor for its services is the wage rate. (Rothbard 2009)

Perfectly analogous to this, the stock of things that we call "capital goods" yielding a flow of services in production must be seen to earn a rental rate. If a copy machine is rented by a producer (a business), the periodic rent paid on it, which is the price of the services purchased, are the "wages" of the copy machine. This remains true even if the producer owns the copy machine. The producer should think of the earnings of the copy machine as the rent the producer pays himself (the rent he would have to pay someone else were he renting it or what he would receive were he renting it out). This rent he charges himself should include the economic depreciation of the machine and other considerations that cannot be explored here. (But see Lewin and Cachanosky 2019, section 5.)

The important takeaway is that in completely reformulating and considerably simplifying the notion of rent, Fetter provides the wherewithal for a complete accounting (in all senses of that word) of all kinds of earnings. In fact, there is no *categorical* difference between the earnings of the different kinds of productive resources – "land, labor, and capital": they all earn rent, the price they are paid for the sale of their services in employment.

2. Which brings us to the second notable implication of Fetter's vision of capital, namely, the notion of capital itself. And here too there are two aspects in which Fetter's theory is remarkable in its simplicity. The first has

precedent in Austrian capital theory; the second is contentious.

A. Capital as value.

As McCaffrey tells us in his lead essay:

> Fetter rejected the standard definition of capital as the produced means of production and advanced his own definition in which capital is "*the market value* expression of individual claims to incomes." This value is "*the sum, in terms of dollars, of … the worth of all available and marketable intangibles … as well as the worth of claims to the uses of physical forms of wealth*." (Fetter 1930-1935 [1977], 149) With both land and capital, Fetter offered original conceptions of long-debated economic terms, and his views provide the basis for much fruitful discussion.... [Italics added].

Pay attention to the italicized words. Fetter has a concept of capital that is clearly value-based. The only other Austrian to have one was Mises, who defines capital as follows:

> Capital is the sum of the money equivalent of all assets minus the sum of the money equivalent of all liabilities as dedicated at a definite date to the conduct of the operations of a definite business unit. It does not matter in what these assets may consist, whether they are pieces of land, buildings, equipment, tools, goods of any kind and order, claims, receivables, cash, or whatever. [Mises, 1949, 262]

To show that the two definitions are in fact equivalent one needs to appeal to the notion of discounted value at any point in time in the production process. This in fact is a missing element in all Austrian capital theorists. It is clearly implicit in all their work and is sometimes mentioned, but it is never analyzed to bring out its centrality. Its importance is clearly brought out in John Hicks's ruminations on Austrian capital theory. (Hicks 1939)

The importance, though, is that, like Mises, Fetter has a value-conception of capital. Capital does not refer to physical things themselves but to the *idea* of what those things are worth in certain situations. Had this approach (shared by Irving Fisher) been adopted instead of the usual neoclassical standard physical conception, much if not all the controversial questions surrounding capital and its earnings could have been avoided. (See Lewin and Cachanosky 2019 generally.)

Ludwig von Mises

B. Human Capital.

Finally, I think it is clear, though not previously observed, that Fetter's definition of *capital* allows for no categorical distinction between the various productive resources (factors of production) as regards their "capital-nature." Fetter is clear that there is no relevant distinction between land and produced means of production ("capital goods"). But he does not extend this to labor. In other words, he stops short of the concept of human capital – as does Mises, though in many places Mises does refer, using other words, to what is human capital. The question of whether the Austrians have neglected human capital, and if so why, is an interesting one.

A RESEARCH AGENDA FOR FETTERIAN ECONOMICS

by Matthew McCaffrey

The response essays by Hodgson, Salerno, and Lewin are united by a common, but troubling theme: they are far too kind to me. However, in the spirit of charity I am willing to overlook this shortcoming. In all seriousness, though, I am grateful for their replies, each of which admirably teases out a vital thread of Fetter's economic system: Salerno focuses on core elements of price theory, Hodgson on capital, and Lewin on capital and the theory of rent. In doing so, they not only flesh out Fetter's views but provide a good deal of additional food for thought. *À table!*

I will use this response to reflect on their replies and to pose several further questions for discussion both within this forum and in future research. In general I approach my replies in conceptual order, beginning with price theory and continuing to problems of a "higher order," to use Menger's term.[12]

Prices: Real and Imagined

Joseph Salerno makes several important observations about the foundations of Fetter's price theory. The crucial one, in my view, relates to the realist aspects of pricing and the market process. The idea that a price is "an event occurring at a specific moment in time as the outcome of interaction among specific persons" is not incidental or trivial for Fetter. He was already thinking along these lines in his 1912 article, and his views became more explicit in subsequent years as he privately debated the definition of price with Maffeo Pantaleoni, Herbert Davenport, E.W. Kemmerer, and others.

In replying to critics, Fetter explained that a price is not an abstraction or a psychological estimate and is not equivalent to subjective value. Instead, it is the realization of value through exchange. A price is not, for instance, "a purely subjective estimate" of "what the individual hypothetically stands ready to give." Price presupposes willingness to pay, of course, but psychological estimates of value by themselves should not be conflated with actual prices paid, nor do they influence real markets. As Fetter explained, "I have had a growing conviction that it would be better to distinguish [subjective estimates] from price and to say that if no trade takes place there is no price." (Fetter 1913) He maintained this view of price throughout his career. (Fetter 1936, 482)

Later writers have taken the distinction a step further to argue that without action, discussion of valuation is speculative and lacks concreteness. This carries major implications for the economic analysis of welfare, as it shifts attention away from hypothetical preferences and toward "demonstrated" ones. (E.g. Rothbard 2011) In this way, we begin with a definition of price and find ourselves moving toward a distinct conception of "welfare economics": the same transition Fetter wanted economists to make by further developing subjectivist theory and transforming it into a genuinely social or humane science that "ultimately must center around human welfare." (Fetter 1923b) The field of welfare economics remains a controversial one for Austrians, especially regarding the question of exactly how Austrian views diverge from the mainstream,[13] but I suggest that there is much to be learned by returning to these kinds of fundamental questions.

Capital, Entrepreneurship, and Economic Calculation

Geoffrey Hodgson's essay focuses on Fetter's monetary-accounting definition of *capital*, its historical context, and its implications for future work. By doing so, Hodgson turns our attention to one of the most debated questions in the history of economics: how should we define *capital*?

Fetter and Hodgson are critics of the conventional produced-means-of-production approach for several reasons, but mainly on the grounds that it is ahistorical and diverges from common business usage. In some ways, it appears natural for Austrians and other subjectivists to likewise reject this objective, physical view of capital pioneered by classical economists. After all, the subjectivist revolution was nothing if not the overthrow of these kinds of concepts and theories.

However, a complete rejection of the physical-capital approach would carry a heavy cost, namely, giving up key insights into *capital heterogeneity*. Contrary to the "shmoo" approach of mainstream theory, Austrians maintain that *capital* represents a complex, delicate, and heterogeneous structure of production. This distinctly Austrian notion remains a foundation for many of the tradition's other contributions, including theories of entrepreneurship, economic calculation, and the business cycle. It also hints at a possible drawback of the monetary-accounting view, namely, that it strips away richness and explanatory power and risks transforming capital into a mere "K."

Happily, I do not believe we need to make a strict choice between one definition and the other; in fact, this may be the rare case in economics where we can have the best of both worlds. What's more, I suggest that the two views, properly conceived, are complementary and both are needed to make sense of production and distribution. The key point as I see it is to distinguish between *capital* and *capital goods* (or, perhaps, capital assets)[14] and to understand the role that each plays in entrepreneurial decisionmaking. This approach also echoes Fetter's research, which raised a similar distinction. (Fetter 1927)

The main point about heterogeneity is simple, yet powerful: it is an empirical fact that not all production goods are equally well suited to all production processes. Entrepreneurs as decisionmakers must therefore choose different combinations of factors in the hope that they will make profitable use of scarce resources. Entrepreneurs bear the uncertainty of the future and earn profits or losses depending on whether their initial appraisals were correct. All of this happens within the context of the price system. Money prices provide entrepreneurs with the indispensable means of economic calculation: the cardinal numbers required to compare alternative production choices. This is why Mises stressed the connections between capital, economic calculation, and the price system:

> The concept of capital cannot be separated from the context of monetary calculation and from the social structure of a market economy in which alone monetary calculation is possible. It is a concept which makes no sense outside the conditions of a market economy. It plays a role exclusively in the plans and records of individuals acting on their own account in such a system of private ownership of the means of production, and it developed with the spread of economic calculation in monetary terms. [Mises 1998 [1949], 262]

At the end of this passage, Mises cites a single economist: Fetter.

What the above summary shows is that there is a theoretical chain that begins with *capital* in one sense (physical goods appraised by entrepreneurs) and ends with *capital* in the other (the monetary value of a firm's assets). The first gets at the fundamental problem entrepreneurs must solve, while the second explains the social process by which they do so and the complex economic system that emerges as a result. I suggest that as long as we are clear about which sense we are speaking of—and keep our terminology similarly clear—both can be used as appropriate.

Before moving on, I would like to draw attention to a subtler point that is reinforced by this discussion. As Peter Lewin observes, the capital concepts of Fetter and Mises stand out from others in the broader Austrian tradition. Such differences over fundamental concepts help to show that "Austrian economics" has never been a monolithic body of doctrine, but has and does consist of a diverse and dynamic collection of ideas.

Whither Capital?

Hodgson and Lewin each raise another vital issue with respect to *capital*: the way that the term has come to be used as "a general and historical concept referring to any durable asset or form of wealth" and how in turn this usage has generated a wide range of alternative capital concepts. The crown prince of these is *human capital*, but there are many other examples, including *social capital*, *political capital*, *knowledge capital*, *reputation capital*, and *public capital*. (In theoretical research it's almost a rite of passage for a concept to be translated into a type of capital.)

The rise of these terms raises many interesting questions for economists. Two in particular come to mind in light of this discussion:

> Do the proposed flaws of the classical definition of *capital* apply to the newer concepts based on it?
>
> Could the proposed advantages of alternate definitions of *capital* (like Fetter's) apply to the newer concepts?

I will not pretend to answer either question definitively, but I will offer a few suggestions.

As to the first, note that many new capital concepts are metaphors for physical capital rather than varieties of it. Social capital, for example, is intangible and may even be immeasurable. It certainly seems difficult to describe it as a means of production in the same sense as plant and equipment, for instance. My point is that it is unclear how strong the connection is between the classical and more recent concepts and therefore whether the faults of one carry over to the other.

Lewin asks why Austrians have devoted relatively little attention to human capital. I suspect that part of the answer lies in the difficulty of integrating ideas like this into price theory, especially into accounts of entrepreneurship and economic calculation. The Fetterian approach would be to ask: can alternative forms of capital actually be capitalized? Or, what unique rents do they generate and how can we identify them? Some critics argue that there are no positive answers to these questions because human, social, etc. capital cannot be isolated and priced on markets, which only price labor services, not distinct components of marginal productivity. (Klein 2014)

A related challenge is to make sense of other types of capital in light of Fetter's definition. For example, are knowledge and skills "legal rights as claims to uses and incomes" that are inextricably tied to "private property and to the existing price system"? Literally they are not, but that only shows that human capital is not capital as such. This brings us back to metaphors and only invites further questions. For example, what would Fetterian definitions of human or social capital look like? Would they include psychic income, money income, or both?

All of this hints at a much larger question, namely, whether we need secondary capital concepts at all. (Hodgson 2014, Klein 2014) It is my hope that Fetter's work and our discussion of it can help point the way toward a satisfactory answer.

Endnotes

[12.] I am being partly ironic, as below I explain that using these metaphors too loosely can create confusion.

[13.] See, for example the March 2017 Liberty Matters discussion on "Israel M. Kirzner and the Entrepreneurial Market Process"; <https://oll.libertyfund.org/pages/lm-kirzner>.

[14.] Though this does invite further confusion given that these terms have also been criticized. (Hodgson 2014).

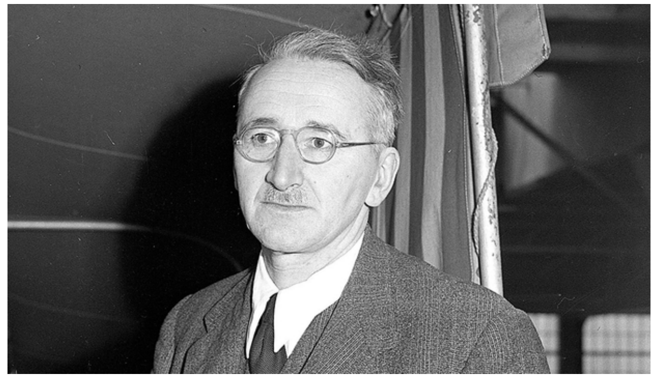
CAPITAL AND PRODUCTION GOODS

by Peter Lewin

Matt McCaffrey chides his commentators for failing to criticize him. Accordingly, in order to rectify this, in this note I will I will provide a few words to suggest that maybe he has not quite captured Fetter's understanding of capital.

McCaffrey says, "[A] complete rejection of the physical-capital approach would carry a heavy cost, namely, giving up key insights into *capital heterogeneity*." I think this is quite misleading. Actually, it's the opposite of the truth, specifically: *having come to a good understanding of the heterogeneous nature of capital goods (production goods) one cannot avoid the realization that the only way to deal with the bewildering variety of productive resources is in terms of value as calculated by those making decisions as to their use.*

Mises is clear that he thinks that the use of the term *capital good* is unfortunate and that something like *production good* would be better because capital is at its very core (and in its origin) a *value* concept. If we abandon the use of the term *capital* for physical things, many problems disappear and one is able to address the heterogeneity of resources without theoretical problems. One can imagine categorizing all productive resources as functionally identical production goods (produced, natural, and human). In a market economy each type of employed production service will carry a price, the rent on the stock employed, on the basis of which decisions will be made about their use. In no way does one have to reject the notion of heterogeneity, and adopting Fetter's framework does not carry any cost in this regard. Rather, the opposite: it invites a greater appreciation of it and how it is dealt with in a market economy (and only in a market economy).



F.A. Hayek

And though it is true that the Austrians, beside Mises (but see Braun 2017 and Braun, Lewin, and Cachanosky 2016), invite confusion on this matter, in fact they themselves are not confused, simply inconsistent. For example, both Hayek and Lachmann wrestle in places with the connection between value and quantity in talking about capital. This underlies much of Hayek's work in the *Pure Theory of Capital* (1941), where he tries to express the dimensions of time, quantity, and value in challenging three-dimensional diagrams. And his verbal ruminations are replete with comments about the relationship among these dimensions. (See Lewin and Cachanosky 2019, section 5.) Lachmann too tries to address the question of the value of capital goods. The clearest statement by Lachmann is perhaps the following:

> [C]apital-goods have a *value dimension* as well as their physical dimension. While in terms of the latter capital is of course heterogeneous, in terms of the former diverse capital-goods may be *reduced to homogeneity*. In fact, in planning and carrying out plans *this has to be done since the planner has to match means with ends* and, except for sums of money, almost all his means are capital-goods. He has to *evaluate* them in order to make them commensurable to each other as well as to his ends. Every plan, simply for the sake of the comparability of the means it employs, has to *assign values* to its capital inputs. Plan failure and consequent revision will probably entail changes in the evaluation of capital-goods, but it is a peculiar aspect of our problem that even while the plan proceeds satisfactorily with no

> unexpected change in the workshop or market, planners may have reason to change capital-values. Changes in the value dimension may not be accompanied by any other observable event. [Lachmann 1986, 79, italics added]

Earlier he says: "We might say of course that the firm will act in such a manner as to maximize the present-value of its expected future income stream," but immediately adds, "but such a description … is of little use to us." (Lachmann 1986, 64)[15]

In addition, in his consideration of the phenomenon of *capital maintenance*, Lachmann adopts an approach (citing Hayek 1935) that entails keeping the capitalized *value* of the expected income stream intact. This implies using a value approach to the estimation of depreciation and resorting to accounting and financial conventions.

Ludwig M. Lachmann

Fetter's approach is an interesting combination of simplicity and common sense on the one hand and apparent profound insight on the other. The second impression is the result of the contrast it provides to the convoluted journey mapped out by the history of capital theory. From Adam Smith through Böhm-Bawerk to the modern production function, by focusing on the physical components of the production process to the detriment of the process by which they are valued, capital theory became a morass of convoluted logic and controversy that could have been totally avoided by joining the works of Fetter, Fisher, and Hicks. Mises comes very close to doing this but fails to incorporate Hicks's insights.

Endnote

[15.] As I shall note below, claiming that the ideas of present value is of "little use to us" turns out to be astoundingly wrong – and Lachmann could (should?) have known this from Hicks's (1939) very clear demonstration of the connection between present value and Böhm-Bawerk's notion of roundaboutness.

AGREEING WITH FRANK FETTER ON CAPITAL, MARKETS, AND PROPERTY

by Geoffrey Hodgson

I am impressed that this brief exchange of ideas has brought so many key concepts out for reexamination. I agree with many of the points raised by Matthew McCaffrey, Joseph Salerno, and Peter Lewin. But ironically, most of all, I find myself agreeing with Frank Fetter.

Much of our discussion has concerned capital theory. In response to my colleagues, I wish to stress the point that there is no single Austrian theory of capital. Instead there is an Austrian conversation on the topic, which internally contains a number of radically diverse and evolving views.

Carl Menger

For instance, Eduard Braun (2015, 2017) showed that Carl Menger shifted his position radically, from seeing capital as durable "stuff" (Menger 1871) to regarding it as essentially a monetary-accounting phenomenon. Menger (1888, 37) rightly pointed out that this monetary-accounting view of capital prevailed in the business world:

> When businessmen and lawyers speak about capital, they do mean neither raw materials, nor auxiliary materials, nor articles of commerce, machines, buildings and other goods like this. Wherever the terminology of the Smithian school has not already penetrated common parlance, only sums of money are denoted by the above word. [Trans. Braun 2015, 90]

This "sums of money" view of capital is radically different from what Matthew McCaffrey describes as the Austrian view: "that capital represents a complex, delicate, and heterogeneous structure of production." According to Fetter and others, capital is subject to monetary homogenization, which in turn facilitates economic calculation in a market economy. Of course, money is complex, but its measure is simple.

Peter Lewin writes that "[i]n common with Irving Fisher (1906), Fetter's capital theory revolves around the distinction between stocks and flows." Yes. Both Fetter and Fisher saw capital as a stock. But there the similarity ends. For Fisher capital was stuff that entered into the physical process of production. For Fetter it was money or the money value of saleable assets.

In his response to the comments, Matthew McCaffery pointed out that Ludwig Mises (1949, 262) once adopted a similar view of capital. Mises wrote:

> The concept of capital cannot be separated from the context of monetary calculation and from the social structure of a market economy in which alone monetary calculation is possible.

The problem here is not what Mises says in this excerpt but the tension in his writing between historically specific and universal usages of terms like *market*. In the same book, Mises (97) saw all action, even by an isolated individual, as "exchange" – as an attempt to swap inferior for superior circumstances. Mises (1949, 257) also devoted an extensive chapter to the market, seeing the market economy as "the social system of the division of labour under private ownership of the means of production." In his account, the historical boundaries of the market depend on what is meant by "private ownership." Mises defined ownership in terms of control of the services that derive from a good rather than in terms of legal rights. Ownership for him meant mere possession. Hence private ownership and exchange could apply to all or most of human history.

Fetter influenced Mises and may have pulled him in a more historically specific institutional direction on the issue of capital. But Mises's fuller commitment to an ahistorical and universal discourse overshadowed these adjustments.

I have argued elsewhere (Hodgson 2019) that markets must be treated as historically specific phenomena. I also point to dangers in the nonmetaphorical use of terms like *market for ideas* (Coase 1974), *political markets* (North 1990), and *market for laws* (Benson and Engen 1988).

As Joseph Salerno shows, Fetter (1915, 59) insisted that markets involve (among other things) "a group of closely communicating traders" making price valuations. In contrast with Mises, this excludes the possibility of single-person market exchange.

Fetter (1915, 264) also saw trade as an exchange of property, where the latter is "an intangible right" rather than an object: "It is legal control, not physical hold of goods." Fetter's understandings of capital and markets depend on an historically specific and legally grounded view of property. Unlike Fetter, Mises saw ownership as fundamentally about control of a resource, irrespective of legal rights. (Hodgson 2015a, 2015b)

Once again, I agree with Fetter.

CAPITAL GOODS VERSUS PRODUCTION GOODS: WHAT'S IN A NAME?

by Matthew McCaffrey

Peter Lewin's reply addresses some important problems regarding the relationship between the physical and value concepts of *capital* and in so doing makes a critical remark about a point I raised previously. Fortunately, with a little clarification I think I can show that we are actually in agreement.

The apparent tension appears partly because my original argument was unclear and partly because I think Lewin and I are reasoning about the same problem from different directions. To clarify, I do not reject Fetter's value approach to capital as I understand it, and I do not believe that adopting it necessarily means giving up the idea of capital heterogeneity (though my wording mistakenly suggested that). What I do believe is that it is possible to apply the value definition too hastily, in a way that overlooks key aspects of the production process, e.g., by ignoring technical facts that are relevant to production and making it easier to assume away some problems related to heterogeneity.

My original claim was that "a complete rejection of the physical-capital approach would carry a heavy cost, namely, giving up key insights into capital heterogeneity." As Lewin explains though:

> [H]aving come to a good understanding of the heterogeneous nature of capital goods (production goods) one cannot avoid the realization that the only way to deal with the bewildering variety of productive resources is in terms of value as calculated by those making decisions as to their use.

Lewin is quite correct about this. However, I don't think the two ideas contrasted here are mutually exclusive: it's possible to think that the value definition is necessary and enriches our understanding of production goods while also holding that it can be applied in misleading ways that overlook aspects of heterogeneity. My comment referred to the second possibility, albeit clumsily.

I agree with Lewin that if we conceive of heterogeneity in the right way, we can avoid many problems. But that's just it: how do we come to "a good understanding" of heterogeneity to begin with? In my view, we begin by acknowledging the existence of empirical differences between physical and human resources; these help us to appreciate the problem of production that entrepreneurs need to solve and the necessity of economic calculation to do so. In this reasoning, heterogeneity is a problem and economic calculation using some version of the value definition of *capital* is the solution.

My discussion should be read, then, as a plea for economists to consider all aspects of this process rather than only part of it. (We could say that the post-Smithian error was to look only at the beginning of it.) I believe Lewin does take the broader, more-complete view: my initial comment was directed at more-mainstream discussions that take the underlying entrepreneurial problems for granted.

The question remains, though: what we should call the physical goods used in production? As I explained in my earlier essay, I think our exact terminology is less important than clarity and consistency. Mises's "production goods" is a natural enough term and may help to avoid the confusion of *capital goods*.

HOW CAN WE MOVE FORWARD FROM HERE?

by Geoffrey M. Hodgson

This exchange of ideas has developed a remarkable degree of consensus. It seems that all or most contributors agree that *capital* is essentially a value concept. There is also assent with Ludwig Mises that terms like *capital goods* are misleading. His alternative suggestion of *production goods* is valuable.

> "THIS EXCHANGE OF IDEAS HAS DEVELOPED A REMARKABLE DEGREE OF CONSENSUS."

But together we have a huge uphill task. Elsewhere I document some of the varied and even absurd use of the term *capital*:

1. "health capital" (Grossman 1972)
2. "religious capital" (Azzi and Ehrenberg 1975)
3. "linguistic and cultural capital" and "symbolic capital" (Bourdieu 1977)
4. "knowledge capital" (Nelson 1982)
5. "reputational capital" (Veljanovski and Whelan 1983)
6. "social capital" (Bourdieu 1986; Coleman 1988, 1990; Putnam 1995)
7. "organizational capital" (Tomer 1987, Klein 1988)
8. "academic capital" (Bourdieu 1988)
9. "cultural or consumption capital" (Becker and Murphy 1988)
10. "cognitive capital" (Rescher 1989)
11. "symbolic capital" (Bourdieu 1990)
12. "environmental capital" (Hartwick 1991)
13. "self-command capital" (Lindenberg 1993)
14. "personal capital" (Dei Ottati 1994, Becker 1996)
15. "network capital" (Sik 1994)
16. "political, social and cultural capital" (Mouzelis 1995)
17. "intellectual capital" (Edvinsson and Malone 1997)
18. "resource capital and institutional capital" (Oliver 1997)
19. "spiritual capital" (Verter 2003)
20. "individual trust capital (relational capital)" (Castelfranchi, Falcone, and Marzo 2006)
21. "collective trust capital" (Castelfranchi, Falcone and Marzo 2006)
22. "street capital" (Sandberg and Pedersen 2009), and even
23. "erotic capital" (Hakim 2011).

(For the references see my *Conceptualizing Capitalism* book and an allied article [Hodgson 2014, 2015a].)

Given this burgeoning literature and so many different manifestations, one would have difficulty identifying what enduring entity is *not* some variety of capital. Capital has now acquired the broad meaning of a stock or reserve of anything of social or economic significance. Everything has become capital.

With *capital* long divested of its monetary associations, economists have made it respectable to describe any unconsumed productive resource as "capital." Now sociologists can earn academic reputations by discovering new forms of "capital." These endless terminological inventions add little to our understanding of the phenomena.

Those who follow the argument of Fetter and others are in the awkward position of agreeing with the widespread monetary-accounting view of capital, as used outside the academy, but disagreeing with the reckless proliferation of *capital* concepts as found in academic economics and sociology.

Can we reverse the absurd proliferation of the c-word in the academy? Not easily. It has become deeply rooted in economics since Adam Smith. But I do suggest that we keep plugging away with the more adequate monetary-accounting meaning.

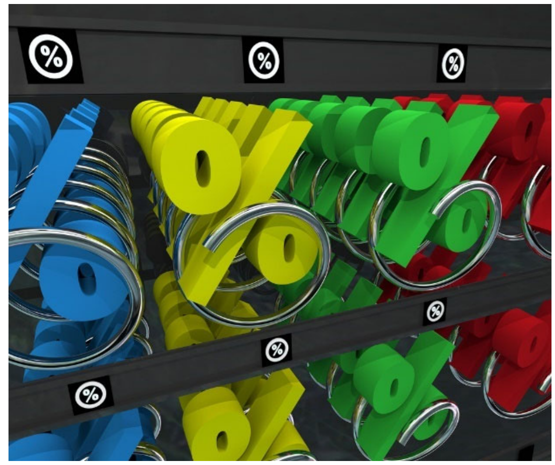
Any major change in terminological usage will become more likely with the growing power of an alternative paradigm in economics and social science. The reigning paradigm in economics is based on a physicalist view of economic activity, with a concept of *property* based on mere possession rather than on legal rights. (Hodgson 2015a, 2015b) An alternative view of the economy would see it as a processor of information and knowledge, as Austrians such as Friedrich Hayek and others such as Thorstein Veblen emphasized. Its central metaphor would not be a machine but a living, evolving system, containing and conveying information like an organism's DNA.

CAPITAL, HETEROGENEITY, AND MOMENTARY EQUILIBRIUM

by Peter Lewin

I am happy to accept Matt McCaffrey's clarification as removing any disagreement between us. It appears that he, Geoffrey Hodgson, and I agree on the most desirable meaning of *capital*. Further, if a better terminology had been or were now adopted to distinguish capital goods from capital, there would be much less confusion and ambiguity. Thinking of capital in value terms also invites an appreciation of the indispensable role of accounting and finance conventions in everyday economic life.[16]

While we agree on the importance of heterogeneity, we should underline the equal importance of the heterogeneity of labor and the important economic implications that flow from that. Labor specificity is an incredibly significant aspect of labor markets and of observed macroeconomic phenomena. This falls out naturally from a view of capital that includes the capitalized value of labor services, such as in the human-capital framework. And the institutions of modern economies facilitate the evaluation of human capital in individual decisionmaking. For example, educated people get lower mortgage interest rates.



Geoffrey Hodgson is no doubt correct to bristle at the large list of "capitals" that now proliferate in the literature – as a response, I imagine, to the perceived opportunity for theoretical innovation by scholars hungry for achievement. Fetter's (and Mises's) approach suggests to me that only those categories which actually play a discernable role in individual decisionmaking should count – and in proportion to the significance they have in such decisions. For example, "reputation capital" is a real thing and plays a large role in the valuation of a business for purchase (brand name), while "erotic capital" should get the lack of attention it deserves. Looking at the list, it seems to me that most, if not all, of the categories collapse into aspects of human capital or social capital, the latter being the value to the individuals involved of the amenities in the environment available to them. For further discussion on capital as value, see Lewin and Cachanosky 2018b.

Fetter's approach is at once very concrete and subjectivist, as so well explained by Joe Salerno, and we should not lose sight of Fetter's broader contributions beyond capital, rent. and interest. Salerno shows how Fetter's conception of price is a "practical" one focusing on real-world trading individuals in real-world markets. A price is a real-world *exchange rate* between buyers and sellers. And the advent of such a transaction defines a market. The exchange rate reflects the valuations of the transactors, but price is not value. Value is subjective. Price is at its most precise in indicating value at the margin, the value to the marginal trader of the good in question. And at any moment, the fact that the market has one price indicates a momentary equilibrium of the "meeting of the minds" of the buyers and sellers.

Salerno wonders about the relationship between Fetter's work and the Austrians who were contemporary or came later, mentioning Böhm-Bawerk, Mises, and Rothbard. As I read Salerno's description of momentary equilibrium, the meeting of minds, and the role of time in human affairs -- suggesting that we should think of separate markets succeeding each other in time as price and other things change, etc. -- I could not help thinking of Ludwig Lachmann's vision of the market process and momentary and market (Marshallian) equilibrium. Fetter's description of changes in markets in a dynamic economy, as conveyed by Salerno, sounds a lot like a description of social institutions à la Lachmann – for example, Lachmann's description of the role of the middleman. While I doubt that Lachmann was influenced by Fetter, it seems his vision would have been congenial to Lachmann.

Endnotes

[16.] In Fisher's T*he Nature of Capital and Income* (1906) at least, such accounting and finance conventions were articulated to produce a view of capital very much like Fetter's.

REHABILITATING BÖHM-BAWERK AS CAPITAL THEORIST

by Joseph T. Salerno

I am grateful to Matt McCaffrey and my fellow commentators for the very stimulating conversation about capital theory. But I think that Böhm-Bawerk has not been fairly treated in the discussion. Peter Lewin downplays Böhm-Bawerk's subjectivism and implicates him in the Smithian tradition of capital theory, which focuses "on the physical components of the production process to the detriment of the process by which they are valued." Lewin may have ignored Böhm-Bawerk's first publication in which he laid conceptual foundations for his capital theory in a world pervaded with noncalculable, systemic uncertainty in which the facts and values related to future goods are a matter of subjective interpretation and conjecture.[17]

Eugen von Böhm-Bawerk

Böhm-Bawerk (1962, 87) argued that "economic science is not concerned only with *today*" because human beings develop "economic foresight" as soon as they begin to strive after the "objective means" for ensuring future well-being. Once this has occurred, "the future has gained a sure and important place in our economizing." Accordingly, "our economic behavior in the present" is "governed by the prospective presence of future needs just as if they were already upon us in the present."

Böhm-Bawerk referred to goods of "more remote order," conceiving of production "as a serial structure, or succession of orders of goods." This construction embodies the idea of causality, which is intrinsic to the goods concept. According to Böhm-Bawerk (1962, 100):

> All goods, by the very terms of the concept "good" itself, have one feature in common. That feature is that they are capable of constituting a link in the chain of cause and effect—the causal chain … between human needs and the satisfaction of those needs. Now this causal relation may be direct or remote; it may be immediate or it may function by way of one or more intermediate links of the chain…. [T]he transmission of the utility takes place in such manner that from goods of remote utility there are first produced other goods which are closer by one stage to the (final) stage of direct utilization....

Ultimately every link in the causal chain of goods derives its economic significance "*from one and the same source, namely, the want*." Although the value of goods of remoter orders is a "derived value," it is also "prospective in nature" and "anticipates the facts." The "anticipatory" character of the value of remoter-order goods derives from the fact that they must be transformed through time-consuming processes into goods of progressively less remote orders before they can finally release their future utility.

Böhm-Bawerk (1962, 95) thus describes capital value as the subjective outcome of the futurity and anticipation inherent in economizing. The present value of goods of remoter order is the outcome of an individual and uncertain process of "wealth computation." It is "an operation replete with subjective interpretations and insinuations." It is designed to give the economizing subject more than a mere listing of "*the things comprising* [his] *wealth*"; rather, it provides "some estimation of their significance, their economic importance … their *value*, in order that we may add them up and compare them with other accumulations of wealth (Böhm-Bawerk 1962, 86). The uncertain, subjective, and fluctuating "capital values" that are summed up into an individual's wealth are thus distinct from his objective possession of presently existing, concrete goods of remoter orders that constitute "capital."

Böhm-Bawerk (1962, 105) explicitly distinguished between *capital value* and *capital*:

> All capital value is an *anticipation* of the value of the prospective consumptible end-product. Production, of which capital is the tool and the material (e.g., machines and raw materials), is the condition, the justification and the materialization of the value which has temporarily been ascribed to capital goods; it is the process by virtue of which the future value of a capital good is transmuted into the present worth of the matured consumptible end-product, the process which leads to capital's fulfillment and justification.

Elsewhere Böhm-Bawerk (1962, 97) differentiated "the materials of wealth" from the "forms of wealth." The former include concrete capital goods as well as stored consumer goods and "are patently identical with the genuine goods which in actual fact lend support to our life and our well-being." The latter are the appraised values of our diverse rights and relationships that bear some probability of the promise of future renditions of service and are "mere creatures of our subjective interpretations."

It is true that Böhm-Bawerk did not advance to Mises's insight that capital is "the central notion of economic calculation." But Böhm-Bawerk's discussion of the distinction between *capital* and *capital value* and the subtle balance between objective and subjective factors in capital theory certainly is a foreshadowing of Mises's theory.

Endnotes

[17.] Böhm-Bawerk's neglected monograph was published in 1881. Unfortunately, its English translation bears a misleading title, which misrepresents its content and is buried in a book of shorter essays by Böhm-Bawerk (1962).

THE BUSINESS OF RESHAPING ECONOMICS

by Matthew McCaffrey

Geoffrey Hodgson's extensive list of capital types shows just how broadly and bizarrely the concept is being interpreted. (I can only shudder to imagine what "erotic capital" entails or how low my stock of it must be.) If Fetter were alive today, he would certainly agree that placing economic research back on a productive track requires abandoning these concepts and revising the meaning of *capital*.

Hodgson poses a vital practical question though: "How can we move forward from here?" That is, how can we root out such a deeply entrenched concept, especially when academic incentives are so strongly in favor of using it and even multiplying its variations? I agree with his answer that a viable alternative research agenda is the solution. But how and where to create it?

These questions provide yet another reason to remember scholars like Fetter, whose struggles can still offer us insight a century later. His example is not always positive though: despite his intellectual achievements, Fetter was ultimately unable to turn the tide of economic opinion and convince the economics profession to once and for all reject the weakest parts of classical economics. So what went wrong and how can we avoid past mistakes as we try to chart a different course?

As Joseph Salerno explains, Fetter and the American psychological school were hindered by their personal conflicts and professional choices. (Salerno 1999) Similarly, the early Austrians failed to develop an appropriate institutional framework within which their ideas could flourish and instead relied on serendipity and the inherent power of the truth to promote itself. (Salerno 2002) As a result, they were unable to offer a unified front against mainstream neoclassical economics. Without a clear sense of purpose and the scarce means (production goods) to follow it through, the ideas of both groups were mainly limited to their students and others in their professional circles.

Getting the institutional framework right is vital, then, and I doubt that anyone in this discussion would deny that institutions matter. But which setting offers the best opportunities for Fetter's brand of economic research? I think Peter Lewin hints at an answer when he points out the importance of accounting and finance standards: if we are searching for an audience for Fetter-style economics, why not push on the open door of business and management studies? Several business disciplines use theories of capital and rent close to Fetter's, so in a sense they already provide a natural outlet for developing an alternative paradigm that incorporates his ideas.[18] I've argued this before in the context of entrepreneurship (McCaffrey 2016), but many other possibilities exist.

Focusing on practical business is especially relevant for economists like the Austrians: given that they tend to stress realism and the entrepreneurial market process, it's only sensible that they'd be interested in the methods entrepreneurs and other businesspeople actually use. I don't think this requires completely ignoring economics as a forum for discussion, and I do think more effort is required in that direction. But I do believe the outlook is much brighter outside the mainstream.

Endnotes

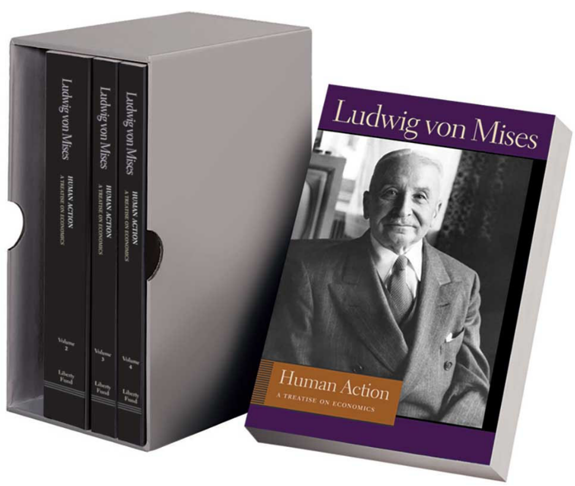
[18.] There is some irony in this suggestion as Fetter was critical of business schools on ideological grounds.

SOME QUICK NOTES IN RESPONSE TO ISSUES RAISED IN THE CONVERSATION

by Peter Lewin

Fetter's view of capital, being consistent with Mises's, is one that is applicable to an institutionally specific society and is thus, as Hodgson agrees, historically specific to that type of society we call capitalist, one based on private property, profit, and loss. As Mises would have it, under socialism, capital goods exist but not capital.

It is true that Mises's treatment about this in *Human Action* (1949) and elsewhere is ambiguous enough to consider him inconsistent. (See Braun 2017 and Braun, Lewin, and Cachanosky 2016.) But, for what it's worth, I am not so sure. Careful contextual analysis of what Mises says in perhaps problematic passages could lead one, if one were so inclined, to interpret Mises as consistent with the Fetter. It's probable that no complete resolution is possible here, but it doesn't really matter that much.



I agree with Joe Salerno that Böhm-Bawerk is essentially a value-subjectivist on capital and interest. I am clear on this point in my own work, though in this conversation I may have left a different impression, and it is appropriate for Salerno to point that out (without, however, finding it necessary to suggest that I did not know this ☺). The bigger point is that Böhm-Bawerk is his construction of the average period of production clearly created a construct that could and would be interpreted variously along Ricardian and neoclassical (aggregate physical capital) lines. In his use of labor inputs as a metric for weighting the time involved in the production process, he clearly invited a physical-capital interpretation, and, though only a small part of this overall work, it is for this that his capital theory was mostly known, much controversy has centered on it. Carl Menger reportedly considered it a grave error is his disciple's work.[19]

Endnotes

[19.]I have discussed Böhm-Bawerk's theory at length in numerous publications, most recently in Lewin and Cachanosky 2019.

TWO COMMENTS ON THE CONCEPTION OF CAPITAL

by Joseph T. Salerno

1. I am in profound agreement with Peter Lewin and Geoffrey Hodgson that the long-entrenched use of the terms *capital* and *capital goods* for two completely distinct categories of phenomena has bred much confusion and error in capital theory since Adam Smith's day. Given that these terms are tightly lodged in the vocabulary of economists, however, and very unlikely to be changed, I think it prudent to try to surmount the semantic problem by insisting on absolute clarity in conceiving of the referents of these terms. Here, I think the use of Mises's vivid rhetoric to describe the "accounting" concept of *capital* may aid us in our common endeavor. Thus Mises (1998, 511) writes:

> The idea of capital has no counterpart in the physical universe of tangible things. It is nowhere but in the minds of planning men.

Following Mises, we can explain the difference between the two concepts in the following way. The concept of a *stock of capital goods* is, like an actual price paid, a *first-order abstraction* of an observable and concrete outcome of valuation and action that is "out there" in the world. *Capital* is, by contrast, from the standpoint of the economist-observer, a *second-order abstraction* that refers to unobservable mental categories used by the actors under analysis in evaluating and planning the use of concrete objects of action, that is, the stock of heterogeneous capital goods. These concepts are complementary in explaining the role of entrepreneurship in production. Here, I agree with Rothbard (1977, 6): "Fetter's idea of capital as a fund of capital and the Austrian view of capital as concrete capital goods are not inconsistent; they play roles in different areas of capital theory."

2. I wholeheartedly concur with Geoffrey Hodgson's clarion call to battle against the seemingly endless proliferation of concepts designated by the term *capital*. We should be unrelenting in our insistence that the term *capital goods* refers to more-or-less durable and reproducible producers' goods that are the sources of services actually exchanged on the market for monetary rents *and* that these "rent-bearers" (to use Fetter's felicitous term) themselves are alienable items of property that are also exchangeable on the market for the *capital value* of their prospective rents.

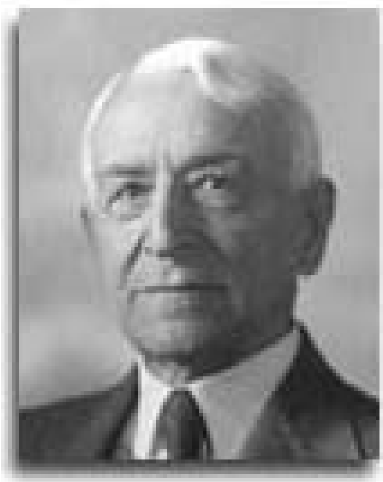
Peter Klein (2009) has given a trenchant critique of "the expansive use of 'capital' to describe any ill-defined substance that accumulates and has value," and I take the liberty of quoting him at length:

> Hence knowledge, experience, and skills become "human capital" or "knowledge capital"; relationships become "social capital"; brand names become "reputation capital"; and so on. I fear this terminology obfuscates more than it clarifies.
>
> I don't mind using these terms in a loose, colloquial sense: By going to school I'm investing in human capital or diversifying my stock of human capital; if this gets me a high-paying job I'm earning a good return on my human capital; as I get old I forget new things, so my human capital is depreciating rapidly; and so on.
>
> But we shouldn't take these metaphors too literally. In economic theory, capital refers either to financial capital or to a stock of heterogeneous alienable assets, goods that can be exchanged in markets and analyzed using price theory. Their rental prices are determined by marginal revenue products and their purchase prices are given by the present discounted value of these future rents. Knowledge is not, strictly speaking, capital, because it is not traded in markets and does not have a rental or purchase price. What markets trade and price is labor services, and it is impossible to decompose the payments to labor (wages) into separate "effort" and "rental return on human capital" components. Some labor services command a higher market price than others because they have a higher marginal revenue product [MRP]. Some of this wage premium may be due to intelligence or experience, some due to complementarities with other human or nonhuman assets, some due to hard work, and so on. But these are all determinants of the MRP, and hence the wage, not different kinds of factor returns.
>
> Moreover, the entrepreneur needs cardinal numbers to compute the value of his capital stock, to know if it is increasing or decreasing in value, and so on. I can't measure my stock of human capital, I don't know for sure if it is increasing or decreasing over time, I can't calculate the ROI [return on investment] of a specific human-capital investment, etc., because there are no prices and no measurable units. Knowledge may be "like capital," in the sense that it lasts, that you can add to it, that you benefit from it, etc., but it isn't literally a capital good like a machine or a refrigerator.

THE LONG SHADOW OF CLASSICAL ECONOMICS

by Matthew McCaffrey

I'd like to conclude my portion of this discussion by reflecting on Frank Fetter's place in the history of economic thought and especially on what I consider to be a crucial underlying theme of his contributions: the paradigm shift from classical political economy to modern subjectivist economics.



Frank Fetter

Fetter firmly believed that the promise of the "new economics" was never fully realized because it failed to emerge from the shadow of the British classical school. The Ricardian tradition in particular was continued by Marshall and many others who embraced key aspects of classical theory—including vital ideas about capital, rent, and distribution—and merely presented them in fresh garb. The resulting hybrid theory (or perhaps, Frankenstein's monster) suffered from many failings of the earlier doctrines and has already been justly criticized by the American psychological school, the Austrians, and the early institutionalists, among others. Throughout the present conversation, the discussants have returned several times to these critiques, particularly of the Smithian definition of capital that has so long dominated the literature. Yet despite decades of criticism, the classical economists retain an aura of prestige and their writings are treated almost with reverence.

Yet given the critical record, shouldn't we expect economists, especially Austrians, to adopt a more skeptical attitude toward the classicals? My final, provocative claim is that economists tend to overestimate the theoretical achievements of the British classicals and underestimate the originality and significance of the subjectivist revolution (including Fetter's contributions to it). The reason for the continued prestige of the classical economists is not that their theories emerged unscathed from criticism, but that economists have ceased to ask the kind of fundamental questions that would reveal their flaws. Attention has shifted away from the "mundane" topics at the heart of economics, such as price theory, capital theory, monetary theory, business-cycle theory, and the theory of interventionism (Klein 2008), toward more-interdisciplinary and applied topics.

Quite often this move takes economists far afield. For example, contemporary literature studying the British classical economists tends to focus on their philosophical and methodological views or on their policy relevance. We often remember Smith, Ricardo, and Mill more as wide-ranging moral philosophers, free-trade advocates, or laissez-faire liberals than, say, as price theorists. We tend to overlook their writings on specific points of economic theory and focus instead on their systems.

Yet if we examine British classical economics as a body of doctrines about the "mundane" problems we've been discussing—prices, markets, equilibrium, capital, interest, rent, etc.—it's hard not to think that much of its legacy has been confusion or outright error. This was also Fetter's conclusion. Naturally, he never hesitated to praise the classical economists for their genuine achievements (and neither should we), but he also didn't shrink from strongly criticizing their failings. It is my view that the best way forward for subjectivist economics is a return to the same critical attitude and search for answers to fundamental questions that captured the interest of Fetter and his contemporaries.

It only remains for me to thank Joseph Salerno, Geoffrey Hodgson, and Peter Lewin for their contributions to this discussion. I could not wish for better discussants, and I am extremely grateful for their time and effort in exploring this neglected but vital corner of economics.

ABOUT THE AUTHORS

Matthew McCaffrey is assistant professor of enterprise at the University of Manchester and editor of the scholarly journal *Libertarian Papers*. He holds a BA in literature and an MS and PhD in economics. His research focuses on entrepreneurship and the institutional conditions in which it thrives, as well as the history of economic thought with an emphasis on the theory of entrepreneurship. He is the co-author of *Austrian Perspectives on Entrepreneurship, Strategy, and Organization* (Cambridge University Press, forthcoming) and the editor of two other books, *The Economic Theory of Costs: Foundations and New Directions* (Routledge, 2018), and *The Murray Rothbard Reader* (Ludwig von Mises Institute, 2016). In addition, he has published dozens of peer-reviewed articles, book chapters, and review essays in outlets like the *Journal of Business Venturing*, *Entrepreneurship Theory and Practice*, and the *European Management Review*.

Geoffrey M. Hodgson is a Research Professor of Business Studies in the University of Hertfordshire and also the editor-in-chief of the *Journal of Institutional Economics*. He is recognised as one of the leading figures of modern critical institutionalism which carries forth the critical spirit and intellectual tradition of the founders of institutional economics, particularly that of Thorstein Veblen. His broad research interests include evolutionary economics, the history of economic thought, Marxism, and theoretical biology. He has published *Economics and Institutions: A Manifesto for a Modern Institutional Economics* (1988), *Economics and Utopia* (1999), *How Economics Forgot History* (2001) and *The Evolution of Institutional Economics* (2004). Hodgson founded and worked for the following groups: the European Association for Evolutionary Political Economy (EAEPE), The Other Canon which is a center and network for heterodox economics research, and the World Interdisciplinary Network for Institutional Research (WINIR).

Peter Lewin is Clinical Professor in the Jindal School of Management, University of Texas, Dallas. He received a Ph.D. in economics at the University of Chicago, where he studied with Nobel Prize-winning economists Milton Friedman, George Stigler, James Heckman, T.W. Shultz, and Gary Becker. His teaching and writing include capital theory, monetary policy and business-cycles, regulation of business, and the historical development of economics. Though a graduate of Chicago, he has retained an interest in the Austrian school and its ability to understand the real world economy and economic policies that affect our lives. Dr. Lewin was born and raised in South Africa, where he studied with Ludwig Lachmann and grew up under the apartheid government of state-enforced racism — which became the subject of his Ph.D. dissertation under the guidance of Gary Becker. From 1986-1991 he worked in a Dallas startup as a senior executive, CompUSA, of which he was a founding shareholder. He is the author of *Capital in Disequilibrium* (Routledge, 1999; 2nd edition, Mises Institute, 2011), editor of *The Economics of QWERTY* (Palgrave, 2002), and author of numerous scholarly articles. He blogs at <http://plewin.blogspot.com/>.

Joseph T. Salerno received his Ph.D. in economics from Rutgers University. He is a professor of economics in the Finance and Graduate Economics Department in the Lubin School of Business of Pace University in New York. He is the editor of the *Quarterly Journal of Austrian Economics* and the Academic Vice President of the Ludwig von Mises Institute where he holds the Peterson-Luddy Chair in Austrian Economics. Salerno is a research associate of the Foundations of the Market Economy in the economics department at New York University and is on the Board of Editors of five academic journals. Salerno has published over 50 articles and essays in refereed journals and scholarly books. He recently published "Böhm-Bawerk's Approach to Entrepreneurship" (*Journal of the History of Economic Thought*, Vol. 36, No. 4, (2014)) with Matthew McCaffrey. His latest book is *The Fed at One Hundred: A Critical View on the*

Federal Reserve System, co-edited with David Howden (Springer 2014). He is the author of *Money: Sound and Unsound* (Mises Institute 2010). He blogs at<http://mises.org/Blog>.