

THE PLACE OF MISES'S HUMAN ACTION IN THE DEVELOPMENT OF MODERN ECONOMIC THOUGHT

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The core of any system of economic theory is the explanation of how prices are determined. As Mises (1998, p. 235) himself put it, "Economics is mainly concerned with the analysis of the determination of money prices of goods and services exchanged on the market." Thus, the core of *Human Action* is parts three and four (pp. 201–684), entitled, respectively, "Economic Calculation" and "Catallactics or Economics of the Market Society." In these two parts, comprising 484 pages, there is presented for the first time a complete and systematic theory of how actual market prices are determined. Of course, Mises did not create this theory out of whole cloth. In fact, the theory of price elaborated in *Human Action* represents the crowning achievement of the Austrian School of economics. It is the culmination of the approach to price theory originated by Carl Menger in 1871 and developed further by a handful of brilliant economists of the generation intervening between Menger and Mises. These latter included especially Eugen von Böhm-Bawerk, J.B. Clark, Phillip H. Wicksteed, Frank A. Fetter, and Herbert J. Davenport. Unfortunately, for reasons to be explained below, the entire Mengerian approach went into decline after World War I and had lapsed into nearly complete dormancy by the mid-1930s. Mises's outstanding contribution in *Human Action* was to singlehandedly revive this approach and elaborate it into a coherent and systematic theory of price determination.

This article is divided into sections, section 1 describes the development of the Mengerian approach to price theory up until World War I, by which time it had reached the zenith of its international influence. Section 2 describes its amazingly rapid decline and suggests four reasons for it, including two fundamental theoretical

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problems that had not been solved by the first two generations of Mengerians. Mises's solitary struggle to revive the approach, beginning in the mid-1930s and culminating with the publication of *Human Action* in 1949 is the topic of Section 3. A revisionist thesis is also proposed in this section that disputes the conventional view that Austrian economics was riding high in the mid-1930s when it was suddenly and tragically buried by the "Keynesian avalanche."

THE MENGERIAN TRADITION BEFORE WORLD WAR I

To appreciate the full significance of Mises's contribution, it is necessary to broadly review the course of development of pure economic theory from the early 1870s through the 1930s. Three disparate approaches to price theory emerged out of the marginalist revolution of the 1870s. Léon Walras attempted to explain price formation along the lines of astronomy and classical mechanics, explicitly conceiving of "the state of the market as a general problem of static equilibrium described by a system of equations" (Ingrao and Israel 1990, p. 92). Walras's general-equilibrium approach, while admittedly systematic, was timeless and mechanical and thus incapable of producing a theory of the real-world pricing process, i.e., of the actual, and necessary disequilibrium, money prices generated by the historical market process. In contrast, the partial-equilibrium approach devised by Alfred Marshall involved a misguided attempt to secure realism in economic theory by shunning analysis of the ultimate causes of price and cost phenomena in terms of consumer choices, adopting instead the classical economists' superficial focus on the businessman. This approach, far from securing a greater realism, led to an analysis of the determination of individual prices in isolation, which ignored or downplayed the general interdependency existing among all values and prices in the real-world economy.

Menger's approach differed sharply from both Walras's and Marshall's. It was at once systematic and realistic. As he boldly declared in the Preface to his *Principles*,

I have devoted special attention to the investigation of the causal connections between economic phenomena involving products and the corresponding agents of production, not only for the purpose of establishing a price theory based upon reality and placing all price phenomena (including interest, wages, ground rent, etc.) together under one unified point of view, but also because of the insights we thereby gain into many other economic processes heretofore completely misunderstood. (Menger 1981, p. 49)

Consistent with his pursuit of an all-encompassing, reality-based price theory, Menger sought to explain "the quantities of goods actually exchanged" (p. 191). He thus focused his explanation on the momentary exchange equilibria, or what he called "points of rest," which coincided with the emergence of historical market prices (p. 188). While Menger thus eschewed mechanical general-equilibrium analysis because it was incapable of yielding a causal explanation of the determination of real prices, he did not fail to present a systematic explication of the pricing process. Thus, he began his treatise with the recognition that "All things are subject to the law of cause and effect" (p. 51). And for Menger, the real and ultimate cause of all value and price phenomena was the incontrovertible fact of the universal human striving for want satisfaction. This striving has as its object the

scarce elements of the external world that are perceived as the cause of want satisfaction; that is, economic goods. Moreover, since human actors must evaluate the relative importance of satisfying a variety of concrete needs or wants, all economic goods are interrelated in what Menger called “the causal nexus of goods” as complements, substitutes, inputs or products (p. 56). The entire constellation of values and prices is, therefore, a systematic and interdependent outcome of the interaction of individual human valuations and choices.¹

In the early 1880s, Menger’s first followers, Böhm-Bawerk and the latter’s friend and brother-in-law, Friedrich von Wieser, began to publish, and, as the decade progressed, the growing stream of publications by them and by others who had been influenced by Menger in Austria and elsewhere increased to a flood. Consequently, by the end of the decade, an identifiable “Austrian School” had coalesced and begun to achieve worldwide renown. It is important to note that even at this early stage, the Austrian School was deeply divided on a crucial issue of basic theory. On the one hand, Böhm-Bawerk fully absorbed Menger’s causal-realistic approach to price theory and endeavored to develop it further and apply it to new areas. Wieser, on the other hand, seized narrowly on Menger’s “subjectivism” as embodied in the principle of marginal utility and, while usefully elaborating some of the implications of this principle, completely ignored the structure of reality-based price theory that Menger had labored to build upon it. Wieser’s purpose was to construct his own peculiar ideal of social welfare based on a state of general equilibrium that he called “natural value,” and to link it through the concept of marginal utility to foundations in human psychology.² As we shall see below, this split between Menger’s earliest and most eminent protégés had momentous consequences for the later development of the Austrian school.

In the three decades from 1884 to 1914, the Austrian School flourished and substantial progress was made in developing the Mengerian approach into a complete theory of price. This progress was embodied especially in the works of Böhm-Bawerk,³ Wicksteed (1967) in Great Britain, and Clark (1965), Fetter (1915), and Davenport (1968), the core members of the so-called “American Psychological School” in the U.S.⁴ The peak of the influence of Mengerian price theory coincided with the publication of the treatises by Wicksteed, Davenport, and Fetter in 1910, 1913, and 1915 respectively. Indeed, as Hayek recounted years later “in the early post-war period the work of the American theorists John Bates

¹For an interpretation of Menger’s value and price theory that emphasizes the centrality of the law of cause and effect, see Salerno (1999).

²In his first book Wieser characterized economic theory as “applied psychology.” Although he eventually came to reject this designation, he continued to maintain that economic investigation began from the “practical consciousness of economic relations,” which was the common property of the laymen and the theorist (Wieser 1967, pp. 3–4). For further discussion of the psychological element in Wieser’s economics, see Kauder (1965, pp. 120–23). On Wieser’s concept of “natural value,” see, Wieser (1971, pp. 60–64) and Howey (1989, pp. 151–52).

³See Böhm-Bawerk (1886, pp. 1–82, 477–541). This long journal article, never translated into English, was actually a monograph on value and price theory most—but by no means all—of which was incorporated into the German-language edition of his *Positive Theory of Capital* published three years later. See *idem* (1959, vol. 2, pp. 121–56).

⁴The term “American Psychological School” was coined by Fetter to designate his own doctrines. It was intended to emphasize the scrapping of the last vestiges of Benthamite hedonism in favor of volitional psychology as the basis of Mengerian value theory (Dorfman 1969, pp. 361–62, 385).

Clark, Thomas Nixon Carver, Irving Fisher, Frank Fetter, and Herbert Joseph Davenport was more familiar to us in Vienna than that of any foreign economists except perhaps the Swedes.”⁵

THE DECLINE OF THE MENERIAN TRADITION

Unfortunately, the Austrian School and its causal-realistic method declined swiftly from the acme of its international influence. There were four basic causes of this decline. The first involved events that occurred in Vienna in the decade leading up to World War I. These included, most importantly, the premature wilting of Böhm-Bawerk’s vital and creative powers, culminating in his untimely demise in 1914 and the concurrent flowering of the creativity and intellectual influence of Joseph A. Schumpeter.⁶ The second was the rapid rise of Marshallian economics in Anglophone countries to almost complete dominance in the field of pure theory by the early 1920s. The third factor that served to undermine the Mengerian approach to price theory was the great stimulus given to research in Continental general-equilibrium analysis at the London School of Economics by the arrival of Friedrich A. Hayek in 1931. Finally, the Mengerian approach itself, even in its most sophisticated elaboration in the works of Wicksteed, Fetter, and Davenport, contained important deficiencies that were conducive to the widespread view that it offered nothing more than a less rigorous, verbal rendering of general-equilibrium analysis. Each of these factors will be dealt with in turn in the following four subsections.

The Decline of Böhm-Bawerk and the Rise of Schumpeter

With the publication in 1886 of his monograph, *Grundzüge der Theorie des wirtschaftlichen Güterwerthes*, restating and extending the principles of Mengerian value and price theory,⁷ Böhm-Bawerk had attained an international reputation. Following publication of the second volume of his magisterial treatise on *Capital and Interest* (1959) in 1889 and the long-running controversy it almost immediately precipitated, Böhm-Bawerk assumed the mantle of leadership of the Austrian School from Menger. Except for two brilliant articles on capital and on money, published in 1888 and 1892,⁸ respectively, the latter had made no substantive contributions to

⁵See Hayek (1992, p. 32). It is puzzling that Hayek would attribute this development mainly to the seemingly trivial circumstance that Schumpeter was an Austrian exchange professor at Harvard in 1913. It is more likely that it was Böhm-Bawerk who drew the attention of his Austrian colleagues and students to these American thinkers well before 1913, since his numerous interchanges with them in American journals reveal his familiarity with and respect for their works. This interpretation is consistent with Mises’s statement that “I know how much I owe to the economists of [the U. S.] in particular since the time, many years ago, when my teacher Böhm-Bawerk directed my attention to the study of the works of John Bates Clark, Frank A. Fetter, and other American scholars” (Mises 1980, p. 224).

⁶I am indebted to Jörg Guido Hülsmann for alerting me to the crucial, but heretofore neglected, role of Schumpeter in the early development of the Austrian School.

⁷The doctrinal significance of Böhm-Bawerk’s *Grundzüge* has been recognized by Hennings (1997, p. 12):

Böhm’s monograph on the theory of value, published . . . in the most respected German-language journal, came soon to be recognized as a brilliant statement of some of the core views of the group, and all the more so as Menger’s *Grundsätze* was by that time extremely difficult to obtain.

Hayek (1992, vol. 4, p. 112) referred to “Böhm-Bawerk’s brilliant exposition” in which he “gave the most complete version of the new doctrine, including the law of costs, the form in which the doctrine was popularized.”

⁸The paper on money has been translated into English. See Zlabinger (1977).

economic theory since the early 1880s and his *Principles* was by then long out of print and extremely difficult to obtain.

Long before Böhm-Bawerk's death in 1914 at the age of sixty-three, events in Austria had begun to take an unfavorable turn for the Mengerian approach. In 1889, Böhm-Bawerk went into government service, where he remained for fifteen years. Although he closely followed the rapidly expanding literature and continued to publish during these years, his duties as a high-level public servant left him little time to spare for scholarly activities. By the time Böhm-Bawerk assumed a specially created chair at the University of Vienna and returned to full-time academic pursuits in 1905, he had attained the status of a venerable elder statesman and could not completely escape continued nonacademic demands on his time and energies. In addition, he was also naturally accorded a statesman's role within the economics profession, he served for many years on the council of the Austrian Economic Association, and was also elected Vice-President and then President of the Austrian Academy of Sciences in 1907 and 1911, respectively. In addition to these heavy demands on his time, his ability to vigorously renew his scientific research was hampered by his enormous workload in the previous fifteen years and the heavy toll it had taken on his health. Thus, upon his return to academic life at the age of fifty-four, he "seemed older than his years suggested." Two years later he described himself as an "old man."⁹

Meanwhile, during Böhm-Bawerk's debilitating hiatus from academic life, Menger retired from the University of Vienna in 1902 and Wieser acceded to his chair the following year. Wieser was a diffuse and idiosyncratic thinker and, as noted above, inclined to follow the Walrasian general-equilibrium approach to price theory. Although his primary doctrinal influence was admittedly Menger, he certainly could not be classified as a Mengerian price theorist in the same sense as Böhm-Bawerk or even Wicksteed and Fetter. As his university student, Schumpeter, wrote of him:

Any professional colleague who penetrates Wieser's intellectual universe is at once aware of a new atmosphere. It is as though one had stepped into a house that bears no resemblance to others' houses one knows, whose organization and furnishings are alien to our era and at first disconcerting. . . . Rarely has an author owed as little to other authors as Wieser. At bottom his only indebtedness is to Menger, and all that he owes Menger is the initial impetus. . . . With sovereign calm he waves aside what other specialists have written when he creates his own work. . . . He reads neither rapidly nor extensively and rarely seeks to grasp the finer points of other people's intellectual systems.¹⁰

Mises expressed considerably less enthusiasm for Wieser's intellectual abilities and achievements than Schumpeter, but also contended that Wieser's work did not owe much beyond initial inspiration to Menger. While conceding that Wieser recognized the significance of Menger's work "immediately" and "enriched the thought in

⁹This paragraph is based on Hennings (1997, pp. 12–17). Mises, who attended Böhm-Bawerk's famous seminar at the University regularly between 1905 and 1913, observed that, in this period "Böhm-Bawerk could have produced much more if conditions had permitted it. . . . But his physical constitution could no longer stand the hard work necessary to embark upon great works—his nerves were failing him. The two-hour seminar already taxed his strength" (Mises 1978, p. 41).

¹⁰Schumpeter quoted in Hayek (1992, p. 120). Hayek wrote similarly that "after the initial stimulus received from Menger, [Wieser] very much pursued his own ways" (p. 49).

some respects," Mises denied that Wieser was a "creative thinker" and believed he was generally "more harmful than useful." In fact, according to Mises, Wieser

never really understood the gist of the idea of Subjectivism in the Austrian School of thought, which limitation caused him to make many unfortunate mistakes. . . . His ideas on value calculation justify the conclusion that he could not be called a member of the Austrian School, but rather was a member of the Lausanne School. (Mises 1978, p. 36)

On the latter point, George Stigler's judgment echoed Mises's. Stigler (1949, p. 158) stated that Wieser's theory of imputation "is much more closely allied to the earlier writings of Walras than to those of Menger and Böhm-Bawerk."

Schumpeter entered the University of Vienna in 1901 and began to study economics in 1903 under Wieser, then newly ensconced in Menger's former chair. The fateful meeting of these two men as teacher and pupil marks the beginning of the downfall of the Mengerian approach to price theory in Austria itself. Schumpeter was "deeply influenced" by Wieser, and "their ideas on many topics in economic theory bear great similarity" (Allen 1994, p. 37). And while it is also true that Schumpeter (1969, p. 143–90) participated in Böhm-Bawerk's famous seminar in 1905 and 1906 and later eulogized him in glowing terms as his great teacher and master, Schumpeter himself identified Walras and Wieser in his first book as "the two authors to whom [he] felt closest affinity" (Machlup 1978, p. 462). This book, *Das Wesen und der Hauptinhalt der Theoretischen Nationalökonomie* (The Nature and Essence of Theoretical Economics), was published in 1908 and was an attempt to explain and defend the use of the model, or "schema" as Schumpeter called it, of the "static economy"—wherein all economic quantities subsist in changeless, mutually-determined general equilibrium—as the main tool of pure economic analysis. Significantly, it was also in this book that Schumpeter originated the concept of "methodological individualism," which was to become so closely identified with the Austrian School of economics (Swedberg 1991, p. 26).

Das Wesen immediately propelled Schumpeter to the front ranks of economic theorists on the Continent and established him as the preeminent member of the third generation of the Austrian School. Wieser accorded the book a long and respectful review, which, in parts, was highly laudatory. Wieser's main objection was the misguided one that Schumpeter rejected the use of "psychology" as a foundation for marginal utility theory.¹¹ Nonetheless, Wieser viewed the book as the achievement of a first-rate, if precocious, mind. Thus, Wieser wrote that

One recognizes everywhere the richly and variedly trained mind which is open to all intellectual currents of the time. . . . [Schumpeter] who only got started a few years ago, may claim with justifiable pride that this book has not been written for beginners but presupposes a fairly detailed knowledge of the state of our science. (Quoted in Allen 1994, pp. 83–84)

Walras, also, was favorably impressed by the book, writing to a colleague that the book was a "very handsome and important work" (quoted in Swedberg 1991, p. 30). In the U.S., Clark, by this time the doyen of American economists, favorably reviewed the book for the *Political Science Quarterly*, concluding that "This work is

¹¹But Wieser did not object to Schumpeter's Walrasian general-equilibrium approach per se. As Stolper (1994, p. 9) put it, "Wieser had different methodological opinions from Schumpeter about the need of psychological assumptions in equilibrium theory."

both critical and constructive, and in each direction it contributes greatly to the progress of economic science" (quoted in Allen 1994, p. 84).

In contrast to his eminent contemporaries, Böhm-Bawerk did not have anything good to say about *Das Wesen*, because he correctly perceived how profoundly anti-Mengerian its theoretical method was. Yet, he too evidently considered Schumpeter an outstanding economic theorist. In a typically penetrating footnote, Böhm-Bawerk provided a devastating critique of Schumpeter's egregious attempt in *Das Wesen* to extirpate the concepts of "causation" and "explanation" from economic theory and to replace them with the concepts of "function" and "description," respectively (Böhm-Bawerk 1959, vol. 3, pp. 228–29). However, Böhm-Bawerk softened his critique by concluding with a playful reference to "an eminent economic theorist" who "allow[ed] himself to be misled because of his use of the mathematical concept of function and consequently being unaware of the dangers of the vicious circle." Indeed, it was largely due to Böhm-Bawerk's intercession that Schumpeter became the youngest full professor at the prestigious University of Graz, and one of the youngest in the Empire, in 1911 at the age of twenty-eight (Allen 1994, pp. 101–02, 117–22; Stolper 1994, p. 6).

Böhm-Bawerk's strangely ambivalent attitude toward Schumpeter—his contempt for his work but esteem for his abilities—is starkly revealed in letters that he wrote to Knut Wicksell. In a letter dated July 9, 1912, Böhm-Bawerk wrote:

Schumpeter is also very young. And of course he neither [sic] could possibly have been able to master the gigantic undertaking [*Das Wesen*] that he has ventured to tackle. But I consider him to be very talented. About his next, second book (*Theorie der wirtschaftlichen Entwicklung*, 1912¹²) you will probably be shocked even more. He has developed his theory of interest, which I consider to be totally wrong. (Hennings 1997, p. 269)

In fact, Böhm-Bawerk penned a bitter sixty-page critique of Schumpeter's interest theory and, after a forty-page reply by Schumpeter, renewed the attack in a twenty-page rejoinder (Swedberg 1991, p. 39). In a letter written in April 1913, Böhm-Bawerk alluded to "the clever but insubstantial fantasies of Schumpeter" (Hennings 1997, p. 272). But in correspondence a few months later, in September 1913, Böhm-Bawerk was again singing the praises of Schumpeter's talents while dismissing his work as superficial: "With our young economists I am also not in agreement. Schumpeter I consider to be the most gifted among them; and if he could find the way from his present cursoriness to solid and meticulous research he could, with his abilities, make important contributions to science" (p. 273).

It is instructive at this point to contrast Böhm-Bawerk's treatment of Schumpeter with that received by Mises in these letters to Wicksell. Whereas Schumpeter is affectionately portrayed as a brilliant, if rambunctious and willful, enfant terrible, Böhm-Bawerk's references to Mises do not betray the slightest degree of personal regard or appreciation for his abilities, despite the fact that Mises had been a regular participant in his seminar for seven years. For example, in a letter dated August 12, 1912, Böhm-Bawerk requested that Wicksell write a review of Mises's *The Theory of Money and Credit*, remarking:

¹²Translated into English as Joseph A. Schumpeter, *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle* (1969).

You have probably also recently received a book on the theory of money by a young Viennese scholar, Dr. von Mises. Mises is a student of myself and Prof. Wieser, which, however, does not mean I would want to take responsibility for all his views. I have just begun to read his book myself, and am not yet familiar with its content. (Hennings 1997, p. 270)

Similarly, in the three subsequent letters written over the next twenty months in which Böhm-Bawerk referred to Wicksell's review of Mises's book, there is not a positive word conveyed concerning Mises's contributions or abilities (Hennings 1997, pp. 271, 274, 275). From this, it must be concluded that even Böhm-Bawerk, despite his profound objections to Schumpeter's approach to price theory, considered him far and away the most promising of the third generation of Austrian economists.

While Schumpeter was being proclaimed by his teachers, Wieser and Böhm-Bawerk, as their most brilliant student and attaining to the status of the youngest full professor in Austria-Hungary, he published his second book, *The Theory of Economic Development* (1969). When this book appeared in 1911, it was greeted with broad acclaim and almost immediately established his reputation among the international community of economists. According to one of his biographers:

Schumpeter's development book, as he had hoped, made him world famous among serious economists almost overnight. While his first book had alerted the profession to a rising new star, this second one cemented his position as the wunderkind of economics and identified him as the most outstanding theorist of social and economic development. (Allen 1994, p. 110)

Schumpeter's reputation spread far and wide. Thus, for example, writing in 1917, the Russian Marxist theoretician, Nicolai Bukharin (1972, p. 56), in his influential critique of Austrian economic theory, characterized Schumpeter as "one of the principal representatives of the Austrian School." By comparison, Bukharin's tone was almost dismissive when referring to Mises in a footnote as "one of the latest advocates of the Austrian School" and a "specialist in the theory of money" (p. 198, n. 100).

The decade leading up to World War I thus represented the watershed decade for the Austrian School in the nation of its birth. A physically debilitated Böhm-Bawerk, although still an influential teacher, was no longer able to undertake original work in pure theory, while Menger had already retired from active teaching and publishing in 1903. In this situation, the publication of Schumpeter's two books sparked a powerful movement to recast the price-theoretic core of Austrian economics along the lines of (verbal) Walrasian general-equilibrium analysis. The publication of Wieser's *Theorie der gesellschaftlichen Wirtschaft* in 1914 added momentum to this movement. Since Wieser's book, later translated into English as *Social Economics* (1967), was the first comprehensive treatise on economics produced by the Austrian School, this meant that the field of pure theory was now almost completely dominated by the general-equilibrium wing of the school.

The momentous result of this state of affairs was that when the fourth generation of the Austrian School entered the University of Vienna immediately after World War I, it was inevitable that its members would cut their theoretical teeth on the works of Wieser and Schumpeter. Wieser was, in Hayek's words, the "grand-seigneur" of

the school and the most influential economics professor at the university, teaching the main economics theory sequence until 1922, although he continued to lecture as an honorary professor until 1925 (Hayek 1992, pp. 22, 123–24). Wieser, of course, was Hayek's "revered teacher," and Hayek always considered himself an adherent of the "Wieser tradition" rather than the Böhm-Bawerk (and Mises) tradition.¹³ But Wieser was also Machlup's "first major teacher" and Machlup took his yearlong theory course twice (Ebeling and Salerno 1980, p. 1). Haberler, too, took Wieser's course and later studied with Wieser's follower, Hans Mayer, who acceded to Wieser's chair in 1922.¹⁴

Since Wieser's theory lectures followed Social Economics very closely—either "read from" the book or "knew it more or less by heart" (Ebeling and Salerno 1979, p. 1; Hayek 1992, p. 22) it was not surprising that members of the fourth generation considered Wieser's treatise the major theoretical expression of the Austrian School. According to Hayek, writing in 1926: "Theorie der gesellschaftlichen Wirtschaft offers not only the sole consistent treatment of economic theory produced by the modern subjectivist school, but it also constitutes, above all, what may well be the greatest synthesis achieved by economic theory in our time" (p. 119). In 1927, Hayek's fellow student, Oskar Morgenstern, effusively hailed the book as "a work that has become the most important statement of the Austrian theory" and "the greatest systematic treatise that has been written by an Austrian in which the principle of marginal utility is analyzed in all its ramifications." Morgenstern (1976a, pp. 482–83) also characterized it as "one of those universally interesting books which mark an epoch in the development of economic theory."

As important as Wieser's treatise was in their formative years, however, Schumpeter's first book, *Das Wesen*, in which he defended the general-equilibrium model as the core concept of pure economic theory, appears to have had an even greater influence on the budding economic theorists of the fourth generation. Writing in 1980, Hayek referred to "his brilliant first book" and argued that the ideas in this work are "certainly essential enough to the understanding of the development of economic theory. Indeed Schumpeter made a contribution to the tradition of the Austrian School which is sufficiently original to be made available to a wider public" (Hayek 1962, p. 161). Hayek also revealed that, "Of course [Schumpeter's] two prewar books and his essay on money were familiar to all of us [of the fourth generation]" (p. 34). Speaking of *Das Wesen* and its great influence on the fourth generation, Morgenstern (1976b, p. 490) recollected that

The work was read avidly in Vienna even long after the World War I, and its youthful freshness and vigor appealed to the young students. I myself remember what sort of revelation it was to me when I first laid hands on it and, like many others of my generation, I resolved to read everything Schumpeter had written and would ever write.

Haberler (1993, p. 22) characterized *Das Wesen* as Schumpeter's "first great book."

¹³Hayek explicitly distinguished between "the two original branches of the Austrian School," the Böhm-Bawerkian and the Wieserian, and characterized himself as an adherent of the latter branch (Hayek 1983, pp. 17–18; 1992, pp. 108–09, 157). Hayek also spoke of Mises as "continu[ing] the tradition of Böhm-Bawerk" and Hans Mayer as "continu[ing] that of Wieser" (p. 51).

¹⁴Ebeling and Salerno (1979, p. 1). Oddly, while Haberler remembered Wieser as "a fine lecturer," Machlup described Wieser's lectures as "terribly dull" and confessed that "it was hard to keep one's mind on the subject," which was why he repeated the course the next year.

Machlup, also, was greatly impressed by Schumpeter. He lamented that Schumpeter was “unjustly” excluded from membership in the Austrian School, “because of his admiration for the mathematical school of Lausanne” (Machlup 1981, p. 21). In fact, he embraced the Schumpeterian vision of the purpose and method of pure theory. In an article surveying Schumpeter’s economic methodology, which frequently and approvingly cited *Das Wesen*, Machlup (1978, p. 462) attributed to Schumpeter a “superior understanding of general epistemology and scientific method.” In his own voluminous writings on methodology, it is clear that Machlup adopted the position of “methodological tolerance” that he ascribed to Schumpeter in this article (p. 463). This position boiled down to two claims: first, that the full explanation of a complex economic reality requires historical and statistical as well as theoretical analysis; but, second, in Machlup’s words (p. 466), “it is economic theory, which in its ‘schemas’ or ‘models’ and in its ‘theorems’ defines and describes (or constructs) the relevant relationships.”¹⁵ While such partial-equilibrium and general-equilibrium models are indeed arbitrary constructions and logically anterior to the facts of reality, they are not mere “aprioristic speculations,” because they are “designed with the facts in mind.” In Machlup’s view, the “decisive point” of Schumpeter’s methodological position is summed up in the following statement by Schumpeter: “On the one hand our theory is in essence arbitrary, and on this is based its system, its rigor, and its exactness; on the other hand, it fits the phenomena and is conditioned by them, and this alone gives it content and significance” (p. 467). Needless to say, Machlup’s methodological approach, which portrays the formulation of arbitrary models as the central concern of theoretical research, describes a major departure from the causal-realistic paradigm of Menger.

But what of the tradition of Menger and Böhm-Bawerk during the 1920s: wasn’t Menger’s *Principles*, after all, still the guiding star of the Austrian School? And wasn’t Mises, the longtime student of Böhm-Bawerk, now teaching a university seminar and conducting his own *Privatseminar*? Regarding Menger’s direct influence during this period, although he was still alive, he was “more a myth than a reality” to the fourth generation, “particularly since his book had become a great rarity which was practically unobtainable as the copies had even disappeared from the libraries” (Allen 1994, p.22). And although it is true that Mises was a popular lecturer at the university, he lectured as an unsalaried *Privatdozent* and, in the early 1920s, hardly rivaled Wieser in prestige as a teacher or Schumpeter in reputation as a pure theorist. In addition, Mises’s university course was an advanced seminar that reflected Mises’s research interests, such as the theory of money and credit, and was not focused on value and price theory (Haberler 1981, pp. 50–51). While it is true that Haberler and Machlup both attended Mises’s university seminar,

¹⁵In this passage, the words “schemas” and “models” refer to the terms Schumpeter applied to partial-equilibrium and, especially, general-equilibrium constructions. In the words of a recent biographer, Robert Loring Allen (1994, p. 77):

For Schumpeter in *Das Wesen* . . . the economic model is the chief expression and operational tool of the economic theorist. He preferred to call it a schema, or sometimes schemata. In his book he employs both partial and general-equilibrium models. . . . The model of which Schumpeter writes primarily, and the focal model of all of Schumpeter’s work in static economic theory, is the circular-flow model or the general-equilibrium economy in a stationary state. It was a variation on the model first developed in mathematical form by Walras.

Hayek never took a formal course from Mises as a university student and never really met him until after he had already received his degree (Haberler 1981, pp. 50–51; Ebeling and Salerno 1980, p. 1).¹⁶

Mises's exciting and influential Privatseminar was even less focused on pure theory, addressing topics of money, business cycles, and economic policy, and often ranging far beyond economics to the philosophy of science and sociology. Moreover, members of the fourth generation were invited to join this seminar only after they had already obtained their doctorates (Haberler 1981, pp. 51; Ebeling and Salerno 1980, p. 1). For these reasons, it is unlikely that the seminar was instrumental in altering the basic approach to economic theory that they had absorbed from Wieser and Schumpeter. And indeed, it is quite apparent in their later works in the 1930s that Machlup, Morgenstern, and Haberler all accepted the model or, in Schumpeterian terms, the "schema" of general equilibrium as the heart of economic theory.

In his early work, from the mid-1920s up to 1933, Hayek, too, viewed general-equilibrium theory as the core of economic theory. In *Monetary Theory and the Trade Cycle*, for instance, which was originally published in German in 1929 as *Geldtheorie und Konjunkturtheorie*, Hayek made it clear that a successful business-cycle theory must be logically integrated with the "fundamental propositions" of the "theory of equilibrium." And by equilibrium theory Hayek (1966, pp. 28–29, 42, n. 2) explicitly understood "primarily . . . the modern theory of the general interdependence of all economic quantities, which has been most perfectly expressed by the Lausanne School of theoretical economics." After 1933, it is true, Hayek struggled mightily to "break out of the Walrasian box"¹⁷ by attempting to dynamize general-equilibrium theory by extending it to include within its purview expectations of the future and the division of knowledge among market participants.¹⁸ But even in his most creative work along these lines, "Economics and Knowledge" published in 1937, he still clung to the belief that "the pure logic of choice," which could be represented by the timeless equations of general equilibrium, played a central role in economic theory (Hayek 1972, pp. 33–56). By 1945, with the publication of his famous article, "The Use of Knowledge in Society," Hayek had definitively abandoned the intractable project of dynamizing general-equilibrium theory. Instead he narrowed his focus to the problem of the interpersonal dispersion of knowledge, and, while assuming that real-world prices were always near their general-equilibrium values, argued that "The mere fact that there is one price for any commodity . . . brings about the solution which (it is just conceptually possible) might have been arrived at by one single mind possessing all the information which is in fact dispersed among all the people involved in the process" (p. 86).¹⁹ So Hayek,

¹⁶As Hayek (1994, pp. 57, 68) recalled, "I only met Mises really after I had taken my degree. . . . I believe that while I was a regular student I only once went to a regular lecture of his, but rather disliked him."

¹⁷Murray Rothbard (1987, pp. 97–108) used this phrase to describe the attempts of Schumpeter and Alvin Hansen to dynamize their inherently static theoretical systems.

¹⁸The story of Hayek's—ultimately futile—struggle is well told in Meghnad Desai (1994, pp. 25–50).

¹⁹For a characterization and critique of the later Hayek and some current Hayekians as "proximal equilibrium" theorists, see Salerno (1993, pp. 127–28; 1994, pp. 116–23).

like his Vienna-trained cohort, was never able to escape the general-equilibrium framework he learned in his youth.

Of course, no one would deny that Mises heavily influenced the fourth generation of the Austrian School, but he did so mainly as a monetary theorist and political economist. Having published *Theorie des Geldes und der Umlaufsmittel* (*The Theory of Money and Credit*) in 1912, by the time Hayek and company had entered the university, Mises had already established himself as the preeminent monetary theorist of the Austrian School and, arguably, among Continental economists.²⁰ It was the publication of *Die Gemeinwirtschaft* (*Socialism*), however, “which would make the most profound impression on [the fourth] generation” (Hayek 1992, p. 133). And while it did unquestionably revolutionize the political-economic worldview of Hayek and his cohorts, it did not challenge them on the level of pure theory. It was not until 1928 when Mises began publishing the series of methodological essays that were collected in 1933 in *Grundprobleme der Nationalökonomie* (*Epistemological Problems of Economics*) that Mises began to be recognized as a general theorist and system-builder along the lines of a Schumpeter.²¹ However, even in these years, the members of the Mises-Kreis could not have comprehended the details of the reconstructed system of Mengerian economic theory that Mises would finally elaborate in his 1940 treatise *Nationalökonomie*.²²

The Rise of Marshallian Economics

This brings us to the second factor operating to undermine the Mengerian approach to price theory: the rapid rise to ascendancy of Marshallian economics after 1890 in the Anglophone countries. With Böhm-Bawerk’s pen silenced and with Wicksteed, a part-time economist with no academic base and with diffuse scholarly interests, Marshallian partial-equilibrium economics swept the field in Great Britain by the 1920s. This left the London School of Economics, under the leadership of Lionel (later Lord) Robbins, as the lone outpost of Austro-Wicksteedian economics in postwar Great Britain.

The economist, William Smart, exemplifies the speed and thoroughgoing nature of the Marshallian conversion of the British economics profession. In 1891, the year after publication of the first edition of Marshall’s *Principles*, Smart published a little primer, *An Introduction to the Theory of Value* (1966), which gave English-speaking economists a lucid and highly sympathetic introduction to Austrian value theory. In the second edition, which was published nineteen years later, Smart added an appendix consisting of a summary of his university lectures on “The Theory of Value: The Demand Side” in order to indicate his more mature attitude toward Austrian doctrines. As the title suggests, this appendix purported

²⁰Hayek (1992, p. 127) characterized this book as “for many years the most profound and satisfying work on the subject available.”

²¹According to Hayek (*ibid.*, p. 147):

When these essays were first published they marked the transition of the author then mainly known for his theory of money and credit and his critical analysis of socialism from an economist in the narrow sense of the term to a general theorist and philosopher of society.

²²As Hayek pointed out with respect to *Epistemological Problems*, “economics serves in this volume mainly as an illustration of the problems raised by any theoretical science of society” (*ibid.*, pp. 147–48).

to show that Austrian value theory only addressed the demand side of price determination. In the Preface to this edition (p. viii), Smart informed his readers that this summary was meant to be studied “along with Book III of the classic which has moulded modern economic thought, Professor Marshall’s Principles.”

In the United States, the growth of the Austro–American School was stunted by the idiosyncratic personality and writing style of Davenport and the deep personal animosity that developed between him and Fetter,²³ and it failed to produce an influential thinker among its second generation of adherents.²⁴ Consequently, during the 1920s, with Clark, Fetter, and Davenport nearing the end of their illustrious careers and no longer contributing to pure theory, the school’s influence on the mainstream of American economics declined precipitously, leaving the field of high theory in the U.S. completely open to Marshallian domination. Thus, the top three best-selling economics textbooks between World War I and the Great Depression were those written by Richard T. Ely (with three collaborators), Frank W. Taussig, and Henry R. Seager, although the prewar treatises by Davenport and Fetter remained in the top eleven (Dorfman 1969, p. 211). Although incorporating some Austrian insights, the Ely et al. and Seager texts expounded straightforward Marshallian price theory, while Taussig built his original theoretical edifice on John Stuart Mill and was perceptively summed up by Joseph Schumpeter as “the American Marshall” (Schumpeter 1969, p. 220; Ely et al. 1928, pp. 143–79; Seager 1908, pp. 81–106; and Taussig 1928, pp. 109–220). Hayek visited the U.S. in 1923 and was stunned and dismayed by the remarkably sudden foundering of the Austro–American School of price theorists. Reflecting back on this early personal encounter with the American economics profession, Hayek wrote:

I must confess that from my predominantly theoretical interest the first impression of American economics was disappointing. I soon discovered that the great names which were household words to me were regarded as old-fashioned men by my American contemporaries, that work on their lines had moved no further than I knew already. (Hayek 1992, p. 35)

In Germany, the long night of domination by the anti-theoretical German Historical school was coming to an end, but the book that reawakened the theoretical curiosity of German economists after the World War I was neither Marshall’s, nor Menger’s Principles, but Gustav Cassel’s *The Theory of Social*

²³On Davenport’s eccentricities and his relationship with Fetter, see Dorfman (1969, pp. 375–90). In his recently published lectures on the history of economic thought, Lionel Robbins (1998, p. 278) characterizes a book by Davenport as “an eccentric but learned work.” The bitter enmity between Davenport and Fetter is evident in their reviews of each other’s treatises (Fetter 1916, pp. 550–65; 1916, pp. 596–605; and Davenport 1916, pp. 313–63).

²⁴A few of the younger generation of the school went on to write postwar textbooks that carried on the Mengerian tradition. For example, John Roscoe Turner of New York University wrote his dissertation under Fetter at Princeton and also expressed a “deep obligation” to Davenport, his former colleague at Cornell, in the Preface to his book (1919, pp. iii–vi). Arthur L. Faubel was a student of both Fetter’s and Turner’s, and was also heavily influenced by the “writings and teachings” of Davenport (Faubel 1923, p. v–ix). Perhaps the last textbook in this tradition was written in 1938 by two of Fetter’s colleagues at Princeton, Archibald McDonald McIsaac and James Gerald Smith. Although by this time its price theory reflected the widespread influence of the Marshallian Imperfect Competition Revolution, its chapters on distribution theory and economic equilibrium were straightforward Fetterian doctrine (McIsaac and Smith, 1938, pp. 294–391).

Economy (1932), which offered a verbal rendition of Walrasian price theory.²⁵ However, in the Romance countries, nascent Mengerian schools were shunted aside by peculiar, indigenous blends of renewed British classicism and moderate German historicism.

In France, the Mengerian approach was eagerly embraced by Paul Leroy-Beaulieu and Maurice Block, the leaders of the French Liberal School. These doctrinal descendants of Jean-Baptiste Say and Frédéric Bastiat considered Menger's causal analysis of price that began from the fact of human wants as the natural development of the French subjective-value tradition initiated by Say (Leroy-Beaulieu 1910, vol. 1, pp. 83–114; vol. 3, pp. 15–94; Block 1897, pp. 129–85). Unhappily, the Liberal School, which had completely dominated French economics from the beginning of the century, began to go into decline in the 1880s as a result of a radical institutional reform in French higher education that established chairs of political economy in all the Law Faculties. University statutes ensured that these chairs would be filled by jurists and lawyers, most of whom were by temperament and training sympathetic to the approach and policy prescriptions of the German Historical School and radically opposed to the deductive method and hardcore laissez-faire policy program of the Liberal School.²⁶ This outcome was not exactly uncongenial to the French government, which had engineered the institutional coup. Thus, almost overnight, a self-proclaimed "new" school sprang to life under the leadership of Charles Gide and soon became entrenched as the new orthodoxy in French economics. Gide and the new school "economists" were not particularly interested in developing pure theory, preferring to rehash outmoded and previously refuted historicist criticisms of classical economics, while struggling futilely to come up with a moderate synthesis of the two bodies of doctrine. Even as late as 1907, there still did not exist a formal course on economic theory taught by the Law Faculties, despite the fact that they almost completely monopolized the academic teaching of economics. By the end of World War I, the Liberal School had passed into history and with it any chance for a Mengerian renaissance of French economics.²⁷ By the 1920s, what passed for pure economic theory in France, outside of a small circle of Walrasians, was a weak and unimaginative brew of classical economics and German historicism with some watered-down marginal-utility theory and Marshallian partial-equilibrium analysis poured in for good measure.²⁸

²⁵As Mises wrote, "The decade-long neglect of theoretical studies had led to the remarkable result that the German public must look to a foreigner, the Swede Gustav Cassel, for a principled explanation of the problems of economic life" (Mises 1996, p. 52). In a similar vein, Hayek (1992, p. 33) remarked that "[Cassel's] simplified version of Walras brought about a revival of interest in economic theory in Germany."

²⁶The Liberal School has had a great but neglected influence on the development of modern economic theory. See Salerno (1988, pp. 113–56).

²⁷On the events in France that led to the rise of the "new" school and the undoing of the Liberal School, see Alcouffe (1989, pp. 313–44); Rowe (1892, pp. 62–85); Gide (1907, p. 192–212; 1890, pp. 603–35); and Haney (1949, pp. 846–59).

²⁸For an example, see Gide (1924). This work was the leading textbook in France almost from the time of its initial publication in 1883. This translation was based on the twenty-third French edition. James Bonar, an early supporter of Austrian economics in Great Britain, described the orientation of an earlier English translation of Gide's book as "substantially that of the . . . 'Classical School,' if we substitute evolution and social union ('solidarity') for finality and individualism. . . . [T]he theoretical work of the Classical School is in great part the foundation of his own new building" (Bonar 1900, p. iv).

The Mengerian approach fared a little better in Italy, where there also existed a dominant Liberal School in the Say–Bastiat tradition, which was led by Francesco Ferrara. Liberal economists, especially Augusto Graziani and Ugo Mazzola, early on began to absorb the lessons of Menger and Böhm-Bawerk and, from 1886 to 1890, the “Austrian School was the most influential among Italian economists.” In 1890, the year that three marginalists, including Mazzola and the Jevonian Maffeo Pantaleoni assumed joint editorship of the leading Italian economics journal, *Giornale degli Economisti*, “the army of ‘marginalist-liberalists’ . . . suddenly grew more numerous” (Barucci 1973, pp. 264–65). However, classical economics and moderate German historicism had already taken firm root in Italian economic thought, predisposing most Italian economists toward eclecticism and preventing these early seeds of the Mengerian approach from achieving their full bloom. The muddled character of Italian economic thought after World War I was well summarized by Lewis H. Haney: By the early 1900s, there had emerged in Italy “the dominant historico-liberalistic eclecticism. . . . Soon the Austrian subjectivism was added, with Graziani outstanding. But even the marginal-utility theorists have made some modification, approaching more closely the Classical theories and so making a fusion with the other group less difficult” (Haney 1949, p. 844).²⁹

Hayek and the Transformation of Economics at the London School of Economics

By 1930, there remained one seemingly impregnable academic stronghold of Mengerian economics in Europe: the Economics Department of the London School of Economics (LSE) headed by Robbins. But events were already developing elsewhere in Europe that would rapidly and fundamentally transform the character of LSE economics.

In the early 1930s, the Austrian School had begun to melt away in Austria as more attractive prospects abroad or the National Socialist threat of Anschluss drove the leading Austrian economists to emigrate to Great Britain (Hayek and Rosenstein-Rodan), the United States (Machlup, Haberler, and Morgenstern), and Switzerland (Mises). Ironically, this great Austrian migration was the third factor contributing to the downfall of the Mengerian tradition, particularly in Great Britain. For it was under Hayek’s influence that economists at the LSE, especially John Hicks, began to introduce Walrasian general-equilibrium theory, as reformulated by Pareto, to Anglo–American economists.

Ingrao and Israel perceptively describe Hayek’s crucial role in the early development of the Anglo–American version of general-equilibrium theory:

The problem that fascinated Hayek was the one Walras and Pareto had left unsolved: the possibility of constructing a convincing interpretation of cyclical fluctuations while not only maintaining the central core of equilibrium theory but actually taking it as a starting point. . . . In his London lectures . . . Hayek started precisely from the concept of general market equilibrium and proclaimed its key importance in economic analysis. . . . Although Hayek did not provide any formalization of his theories, his equilibrium theory offered a wealth of suggestions that were to be taken up in the literature of the 1940s and 1950s. The idea of intertemporal equilibrium, which was to be precisely defined in axiomatic terms by Arrow and Debreu, took shape in his writings of the 1920s and

²⁹On the development of Italian economic thought during this period, see also Rabbeno (1891, pp. 439–73); Loria (1891, pp. 203–24); and Einaudi (1955, pp. 7–25).

1930s. . . . The best introduction to a more detailed exposition of the content of *Value and Capital* is perhaps Hicks's own outline of the divide that opened at a certain point between his research program and Hayek's. (Ingrao and Israel 1990, pp. 232–34)

Although Hicks had read Pareto before he met Hayek, he affirmed that Hayek's teaching stimulated him to begin "once again, from Pareto." Regarding the line of work that he pursued during the 1930s and that culminated in *Value and Capital*, Hicks (1983, p. 359) revealed that "I did not begin from Keynes; I began from Pareto, and Hayek." Hayek (1992, pp. 53–54) himself regarded the analysis of value theory in *Value and Capital* in terms of marginal rates of substitution and indifference curves as "the ultimate statement of more than half a century's discussion in the tradition of the Austrian School."³⁰

More momentous, however, than Hayek's direct impact on Hicks, the idiosyncratic and eclectic theorist, was the profound effect that the Hayek–Hicks collaboration had on Robbins, the very heart and soul of LSE economics. Between 1927 and 1934, Robbins had written a series of brilliant papers elaborating and applying causal-realistic price theory and criticizing Marshallian partial-equilibrium economics.³¹ In addition, his *Essay on the Nature and Significance of Economic Science*, first published in 1932, clearly evinced the author's "especial indebtedness" to the works of Mises and Wicksteed while compellingly arguing that economic theory was indeed "based upon reality," as Menger had originally claimed (Robbins 1969, pp. xv–xvi). Robbins's book quickly succeeded in demonstrating to most of the profession that the Mengerian method of formulating economic theory was both obvious and realistic. As Robbins (1969, p. 78) characterized this method:

The propositions of economic theory, like all scientific theory, are obviously deductions from a series of postulates. And the chief of these postulates are all assumptions involving in some way simple and indisputable facts of experience relating to the way in which the scarcity of goods which is the subject matter of our science actually shows itself in the world of reality.³²

By the mid-1930s, however, Robbins had begun to fall under the sway of Hayek and Hicks, conflating the dynamic Menger–Wicksteed price analysis with the Walrasian pure logic of choice as the essence of economic theory.³³ For example, in the syllabus for his course on "General Principles of Economic Analysis" given during the 1934–35 session, Robbins included under the heading "Modern works in general

³⁰Also, in appraising the economists who were at the LSE in the 1930s, Hayek referred to Hicks as "the super intellect," "wonderful theoretician," and "certainly . . . the best mind we had" (Hayek 1994, p. 87).

³¹For a good discussion of Robbins's early microeconomics papers, see O'Brien (1988, pp. 87–105).

³²The central role that Robbins attributes to the concept of goods in the elaboration of economic theory was characteristically Mengerian. On this point see Salerno (1999).

³³Robbins averred that once it was recognized at the LSE that Hicks's "was a mind of quite exceptional quality and grasp . . . his influence was pervasive" and "[w]e speedily acquired the habit of seeking his aid in solving analytical perplexities and his criticisms on our own propositions." Moreover, Robbins indicated that Hicks's influence at LSE "lasted long after his departure" and rated him as "one who must surely be placed in the topmost ranks of pure economists of the century" (Robbins 1971, pp. 129–30).

theory" the treatises by Böhm-Bawerk, Wicksteed, Fetter, Clark, and Davenport alongside those of Cassel, Pareto, and the latter's follower, Enrico Barone. In a revealing note in the syllabus, Robbins wrote: "The treatment will be nonmathematical in character. Students who wish to witness the same problems treated mathematically should attend course no. 66 (Introduction to Mathematical Economics)" (McCormick 1992, pp. 31–32). For Robbins, evidently, the choice between the causal-realistic and the mechanical general-equilibrium approaches was now merely a matter of taste. Robbins's syllabus for 1938–39 evinced his further evolution away from the Mengerian tradition. Gone from the sections on general theory ("Statics" and "Comparative Statics") were the great Austro–American treatises of Clark, Fetter, and Davenport, while Pareto's treatise remained and Hicks and Allen's article on "A Reconsideration of the Theory of Value," Edgeworth's *Mathematical Psychics*, and Chamberlain's *Theory of Monopolistic Competition* were added. Moreover, while Wicksteed's treatise was listed as a prerequisite, Knight's *Risk, Uncertainty, and Profit* was now identified as the organizing text for the course.

Additional evidence of Robbins's drift away from the Mengerian camp can be found in the second edition of *Nature and Significance* published in 1935. In this edition, there are still numerous footnotes citing the works of Fetter, Davenport, Wicksteed, Mises, and Richard von Strigl, but now coexisting, somewhat incongruously, with footnote references to the works of Pareto and Hicks. Apparently this was not the case in the first edition. As Richard M. Ebeling, who compared the two editions, explains:

The footnote references in this first edition show more clearly the strongly "Austrian" influence on Robbins's thinking than in the second edition of 1935, in which modifications in the text and deletions in and additions to the footnote references create the impression of different authorities having influenced his ideas. (Ebeling 1998, p. 1, n. 1)

Also, as Robbins significantly reveals in the Preface to the second edition, these changes were made under the "advice and criticism" of Hayek, Paul N. Rosenstein-Rodan and Alfred W. Stonier. Like Hayek, Rosenstein-Rodan was a member of the fourth generation and also a member of the Wieser–Mayer circle (Hennings 1997, p. 272). It is significant that in the Preface to the first edition of *Value and Capital*, Hicks also specifically mentioned Hayek and Rosenstein-Rodan, along with LSE general-equilibrium theorists Nicholas Kaldor, Abba Lerner and R.G.D. Allen, as contributing to the ideas underlying his own book (p. 273).

A brief word must here be said about the socialist calculation debate, because it starkly reveals the difference in approach between Mengerian price theorists like Mises, and verbal general-equilibrium theorists such as Hayek and the later Robbins. Both Hayek and Robbins in their critiques of socialist central planning emphasized the impracticality of the full and timely discovery by the central planning board of the widely dispersed knowledge needed to solve the system of simultaneous equations that were supposed to substitute for the monetary calculations of entrepreneurs. But for Mises, the economy was always in deep and fundamental disequilibrium and these equations were, therefore, completely irrelevant to the problem of economic calculation. Moreover, the problem of incomplete knowledge, especially due to ineradicable uncertainty of the future, was a problem that afflicted central planners and private entrepreneurs equally.

While generally refraining from engaging in controversy with his fellow critics of socialism, Mises did explicitly address the differences between his own position and that of Hayek in an article published in a French economics journal in 1938. After arguing that the state of equilibrium describable by mathematical equations is a purely hypothetical, imaginary, and unrealizable future state whose conditions can never be known today and which "does not correspond to anything real," Mises wrote:

Hayek, too, has shown that the application to economic calculation of the equations that describe the state of equilibrium presupposes knowledge of the future valuations of consumers. But in this he has seen only an increase of the difficulty of the practical application of those equations, instead of seeing a fundamental and insurmountable obstacle to their employment in economic calculation. It is of absolutely no importance at all that we envisage the socialist regime as a dictatorship with central planning, in which only the valuations of the dictator are relevant, rather than in the form of a community organized according to democratic principles in which the valuations of individual consumers or groups of consumers would be relevant to economic planning. The dictator too cannot know today how he will make his evaluations in the future when conditions will have changed; he cannot know it just as the individual consumer cannot know.³⁴

Now, while it is true that important Austrian contributions to money, capital, and business-cycle theory continued to pour forth from the LSE throughout the 1930s, most from the pen of Hayek himself, they were progressively weakened by the fact that they were straying farther and farther afield from their roots in dynamic Mengerian price theory. The culmination of this unfortunate trend was Hayek's *The Pure Theory of Capital*, published in 1941, which was largely unsuccessful precisely because it was an attempt to reconstruct Böhm-Bawerkian capital theory on the basis of an intertemporal general equilibrium.

The last gasp of Mengerian price theory in its pre-Misesian incarnation actually occurred in the U.S. in the mid-1930s. Vernon A. Mund, a student of Fetter's at Princeton, published a monograph *Monopoly: A History and Theory* (1933), which was far superior to the Marshallian works on the subject published concurrently by Joan Robinson and Edward Chamberlain. Mund explicitly based his own analysis of monopoly on Menger's "new and unified analysis of monopoly and competition," which, he declared, "made Menger's work a signal contribution to economic theory." Two years later, there appeared posthumously Davenport's (1935) monumental—but stylistically opaque—dissection and critique of the entire system of Marshallian economics from the standpoint of causal-realistic price theory. Finally, in 1937, Fetter contributed four original chapters to a textbook on *Economic Principles and Problems*, edited by Walter E. Spahr. In retrospect, Fetter's eighty-five-page contribution represented the canonical statement of the core of Mengerian price theory as it stood immediately prior to Mises's reconstruction (Fetter 1937a,b,c,d). Needless to say, all of these works sank without a trace under the successive tidal waves of the Marshallian Imperfect Competition Revolution and the Hayek–Hicks reconstruction of general-equilibrium theory.

³⁴Mises (1938, p. 1059). The passage was translated into English by Jörg Guido Hülsmann and Joseph T. Salerno.

Unresolved Problems within the Mengerian Paradigm

The fourth and final factor that contributed to the rapid dissolution of the Mengerian paradigm after World War I did not involve external circumstances, but analytical deficiencies internal to its theoretical approach. These shortcomings were twofold and tended to obscure the distinctiveness of the causal-realistic approach and to lead to a superficial, but widely accepted, characterization of it as a less rigorous, verbal version of the general-equilibrium approach. The first problem revolved around the concept of equilibrium. Menger had shown the importance of the concept of actually observable "points of rest" or momentary exchange equilibria in his analysis of the formation of real market prices. However, since Menger's *Principles* was intended as the general introduction for a prospective multi-volume treatise that he never wrote, he formulated the general principles of value-imputation for higher-order goods, but refrained from analyzing the pricing and allocation of the factors of production in an exchange economy. Hence, he had no need for the concept of long-run equilibrium of production.

Now Menger's concept of realizable exchange equilibrium is fully adequate for the analysis of the formation of actual moment-to-moment market prices and has remained the central analytical concept of causal-realistic price theory. Writing in 1910, Fetter emphatically affirmed that "The concept of the economic equilibrium . . . must be thought of as present in all dynamic societies . . . Any price, no matter how temporary or unstable, is one that for the moment brings into equilibrium the quantities bought and sold, produced and wanted at that price" (Fetter 1910, p. 133). Davenport coined the term "moving equilibrium" to designate the interdependent system of money prices that continually emerges from each moment's exchanges on the market. According to Davenport (1968, pp. 113–14), "Prices have their setting in a great moving equilibrium, all parts of which are related to all other parts and are in close interdependence with them." The actual, if momentary, equation of supply and demand that gives rise to a definite price in each individual market "assumes . . . an existing system of prices upon goods in general and an established price relation for these goods in terms of money." It is in this restricted, but crucial, sense that current-day Mengerians insist that the market is always in equilibrium.

Nevertheless, in order to trace out the causal relations that govern the complete and time-consuming adjustment of the structure of resource prices and allocations to given changes in the underlying data of the economy, the subsidiary and purely imaginary construct of a final equilibrium of prices and production is indispensable. This was recognized by Böhm-Bawerk, who employed the imaginary construct of a fully-adjusted, changeless economy in developing Menger's theory of imputation into a full-blown marginal productivity theory of factor pricing in a capital-using market economy (Böhm-Bawerk 1959, pp. 248–56). However, Böhm-Bawerk himself never explicitly identified or completely understood this method of imaginary construction. Unfortunately, still methodologically under the influence of John Stuart Mill, as was Menger also, Böhm-Bawerk erroneously maintained that it was merely "frictional obstacles" that prevented the real-world economy from instantaneously adjusting itself to this state of long-run equilibrium. While noting that "In actual practice such 'frictional obstacles' are infinite in number," Böhm-Bawerk disastrously conceded that if "perfection were attained" then the pricing and allocation of resources could be determined with "ideal mathematical accuracy." More disastrous still, Böhm-Bawerk argued that

economic laws, such as the law of marginal productivity, would have “ideally complete validity” only in a world of undisturbed long-run equilibrium (pp. 255–56). Thus, Böhm-Bawerk’s and Menger’s methodology—i.e., the account they gave of the method they used to formulate economic theorems—was not only confused, but also incompatible with the actual method they employed in successfully formulating a causal-realistic price theory.³⁵

The first economist to self-consciously identify and attempt a comprehensive explanation of the method that guided the Mengerian approach in theoretical research was John Bates Clark.³⁶ But terminological obscurity and internal inconsistencies marred even Clark’s perceptive and pathbreaking discussion. Clark argued that the starting point of theorizing about the causal economic laws governing a market economy is the imagining of what he called a “static state.” In this mental construct, the underlying data of the economic system are changeless and the pattern of prices and of resource allocation have been completely adjusted to these data, and, consequently, all product prices equal their average costs of production and entrepreneurial profits and losses are nonexistent. Clark (1965, p. 400) admitted that the depiction of such an economy is “completely imaginary” and that “a static society is an impossible one.” However, he pointed out, using the static state in our reasoning is “a heroic but necessary application of the isolating method.” This method permits us to analyze causal laws or “forces” which “[w]e always see . . . working in connection with other forces, but we have to imagine . . . working alone.” Correcting Böhm-Bawerk and Menger, Clark thus affirmed without qualification that the “static laws” deduced with the aid of this imaginary construction are “nevertheless real laws . . . that still operate in the changing world of reality” (p. 30). Indeed, “static laws dominate the activities of a real and dynamic society” and the influences they exert on dynamic adjustment processes “are not imaginary; they are as real as anything on earth” (pp. 37, 401).

Clark thus had brilliantly and completely freed himself from Mill’s harmful misconception that economic laws were only “hypothetically true,” i.e., true in the absence of “disturbing causes,” such as imperfect factor mobility or nonpecuniary motives for action. Unfortunately, Clark opened the door for another pernicious error with his choice of the term “static laws” to characterize the content of economic theorems. For these theorems are not about laws that apply in the timeless, changeless static state, which by Clark’s own admission is “completely imaginary” and “impossible”; rather they are about the laws of the real, dynamic market economy

³⁵For a critique of Menger and Böhm-Bawerk on this point, see Mises (1981, pp. 167–82).

³⁶In the Preface to his great treatise, Clark (1965, pp. viii–ix) significantly remarked on the “resemblances and contrasts” between his theory and the theories of Menger, Wieser, and Böhm-Bawerk. In a letter written in 1890 to Menger’s student, Robert Zuckerkandl, Clark was even more explicit about the affiliation between his ideas and those of the Austrians, writing: “Nothing gives me greater pleasure than to render full honor to the eminent thinkers, mainly Austrians, who were earlier in this field than myself, and who have carried their analysis to greater lengths” (quoted in Hayek 1992, p. 39). And later native Austrian economists certainly recognized Clark as one of their own. Mises, for example, remarked that “The ideas of the Austrian School were developed in the United States especially by John Bates Clark, founder of the renowned American School (Mises quoted in Greaves 1996, p. 50). And Hayek made the strong claim that “at least some of the members of the second or third generation of the Austrian school owed nearly as much to the teaching of J. B. Clark as to their immediate teachers” (Hayek 1992, p. 39). Finally, Fetter named Clark, rather than Walras, along with Menger and Jevons as “most fully representative of the three creative sources of the marginal theory” (Fetter 1923, p. 594).

that unfolds in history. "Static law" is therefore a self-contradictory and confusing misnomer. Economic laws, in whose derivation the fiction of the static state is indispensable, are immutable laws of reality that govern human action and interaction in the irreversible flux of time; hence, they can have no application in the unrealizable static state where time and action are defined away.

The problems with Clark's discussion go beyond the merely semantic, however. Apparently confused by his own misleading terminology, he could not resist reifying the static state, implying that it has an independent and permanent existence—albeit one that is agitated by the never-ending "frictions and disturbances" associated with dynamic phenomena. For Clark, therefore, the static state exists in the same way that the level of the ocean really exists independently of the waves that continually roil its surface. In Clark's words,

The static state . . . should . . . be thought of as an ideal arrangement, projecting itself through the disturbed and changing group system [i.e., competitive market economy] of actual society just as the imaginary level surface of the sea projects itself through the waves. [S]tatic society . . . is a shape and mode of action that the real world carries within it. . . . [W]e may grasp the essential reality of it. (Clark 1965, p. 402–03)

In accord with this reification, Clark divided economic theorems into propositions about "static forces" and "dynamic forces." Since both sets of forces are operating in the "world of fact," static economic theory must be supplemented by a theory of economic dynamics, i.e., "a science of economic friction and disturbance" (p. 32). Furthermore, the effects of the two sets of forces are not symmetrical: the static forces "at work in the unchanging world are not only working in the changeful one, but are even the dominant forces in it." As a result, despite the continual dynamic frictions and disturbances, real-world prices, wage rates and interest rates are "always comparatively near" to the "natural standards" set by static forces (p. 30).

Of course, Clark's lapse into fallacious concretizing of the static state should not obscure his brilliant achievement in demonstrating that the so-called "static method" is the one, true method of theoretical inquiry in economics. Nonetheless, Clark's preeminent position as "the first American theorist of international reputation" (Mai 1975, p. 51) ensured that his compelling but defective methodological account would have dire consequences.³⁷ For once, it is admitted that dynamic phenomena are secondary and that economic theory is basically a system of propositions about a virtually existing static world, the causal-realistic approach suddenly appears as a redundant and much less rigorous version of the general-equilibrium approach. And, as noted above, this is exactly how even its erstwhile supporters at the LSE treated it, after Hayek and Hicks began to introduce general-equilibrium economics to English-speaking economists in the 1930s.

As it encountered the theoretical developments of the 1930s, the Mengerian approach embodied a second, and even more fundamental, shortcoming. This was its failure to provide a theory of money prices and, therefore, of monetary calculation. Even in its most sophisticated variants, as found in the treatises of

³⁷Mises himself, as late as 1933, employed Clark's distinction between statics and dynamics (although not precisely with the same meaning), even conceding that "In the present state of the science, it is not possible to determine whether dynamic laws are feasible within the system of catalactics" (Mises 1981, p. 108).

Wicksteed, Fetter, and Davenport, it remained essentially a theory of a barter economy. While Menger and his followers keenly perceived that economic calculation could only operate with money prices and that a realistic theory of price must be a theory of a monetary-exchange economy, they were unable to overcome the seemingly irremediable split between monetary and value theory.

Menger himself identified the crucial difference between the money economy and the barter economy, pointing out that the quantitative comparison of the means and ends of economic activity facilitated by monetary calculation "is of the utmost practical importance, if not the basis and precondition for purposeful action," while "[i]n a barter economy the measurement of economic wealth and economic calculation are wrought with troublesome difficulties" (Zlabinger 1977, pp. 9–10). Menger also took the momentous first step in developing a theory of money prices by presenting a pioneering explanation of the demand for money in terms of individual desires for cash balances (pp. 32–40). Böhm-Bawerk, too, stressed that economic calculation must be monetary calculation, pointing out that "[m]oney furnishes . . . the neutral common denominator for the otherwise noncomparable needs and emotions of different individuals" (Böhm-Bawerk 1959, p. 250). Thus, his definitions of price always referred to money, and he continually emphasized the vital role of money prices in the process of "imputing" the subjective values of consumers upward from consumer goods through the ascending orders of capital goods to the original factors of land and labor. The factor prices thus determined through this monetary-imputation process permit entrepreneurs to compute and compare the costs of alternative production processes and to allocate scarce factors according to the law of marginal productivity. Böhm-Bawerk also conceived the opportunity cost of a commodity in terms of the marginal utility of its money price (Geldgrenznutzen) to the buyer (Böhm-Bawerk, 1962, pp. 351–70).

Based on similar insights, Wicksteed (1967, vol. 1, pp. 135–41; vol. 2, pp. 575–623, 768–69, 825–26) and Davenport (1968, pp. 254–331) both rejected the mechanical and aggregative quantity theory of money and attempted to develop a theory of money and money prices within the framework of the "micro" causal-realistic approach. Although they both made important progress toward this goal—and Wicksteed came very near to achieving it—their ultimate failure meant that Mengerian price theory still remained a theory of barter exchange. Now, it is true that Mises had made substantial progress in integrating monetary and value theory in his treatise on money (*Theorie des Geldes und der Unlaufsmittel* [The Theory of Money and Credit]) published in 1912. However, he had not elaborated the implications of this integration for price theory proper, and, as we shall see below, he himself considered this project unfinished until 1940.

Mengerian price theorists before 1940 thus lacked the analytical wherewithal to demonstrate that the timeless and moneyless general equilibrium approach and the unsystematic, partial-equilibrium Marshallian approach—the analytical pyrotechnics of the 1930s notwithstanding—were both plainly and profoundly irrelevant to the central problem of economic theory. This problem is to explain how monetary exchange gives rise to the processes of economic calculation that are essential to rational resource allocation in a dynamic world.

So, after a period of remarkable development and influence from 1871 to 1914, Mengerian price theory, the core doctrine of the Austrian School of economics, had

stagnated and, by the mid-1930s, was virtually a closed chapter in the history of economic thought. It was not so much that the approach had been rejected but that—due partly to its own deficiencies—it had been uncomprehendingly conflated with competing approaches. Not surprisingly, given his central role in its accomplishment, this “fusion” of approaches and effective dissolution of the Austrian School in the 1930s was approvingly cited by Hayek in 1968 as evidence of the School’s triumph. Implicating the entire fourth generation of the School, of which he himself was the most eminent member, Hayek wrote:

But if this fourth generation in style of thinking and in interests still shows the Vienna tradition clearly, nonetheless it can hardly any longer be seen as a separate school in the sense of representing particular doctrines. A school has its greatest success when it ceases as such to exist because its leading ideals have become a part of the general dominant thinking. The Vienna school has to a great extent come to enjoy such a success. Its development has indeed led to a fusion of the thought stemming from Menger with that of [William Stanley] Jevons (by way of Philip H. Wicksteed), of Léon Walras (by way of Vilfredo Pareto), and especially, of the leading ideas of Alfred Marshall. (Hayek 1992, p. 52)

HUMAN ACTION AND THE REBIRTH OF THE MENGERIAN TRADITION

Mises must have been fully cognizant of this disastrous state of affairs when he immigrated to Switzerland in 1934. Comfortably ensconced as a fulltime, salaried faculty member at the Graduate Institute of International Studies in Geneva, Mises for the first time could fully focus his attention on academic research. Mises used this opportunity to write *Nationalökonomie*, the German-language predecessor of *Human Action* and a book that was intended to revive the Mengerian approach and elaborate it into a complete and unified system of economic theory.³⁸ As evidence of the importance that Mises attached to this book and of the time and energy he poured into it, he wrote very little else in the years leading up to its publication in 1940. Previously an enormously prolific writer, the extent of his output from 1934 to 1939 was comparatively meager: in addition to book reviews, short memos, newspaper and magazine articles, notes, and introductions, there was only one substantial article for an academic audience.³⁹

In retrospectively describing his purpose in writing *Nationalökonomie*, Mises left no doubt that he sought to address the two burning issues left unresolved by his Mengerian forerunners: the status of the equilibrium construct and the bifurcation between monetary and value theory. Regarding the former, Mises wrote:

I try in my treatise to consider the concept of static equilibrium as instrumental only and to make use of this purely hypothetical abstraction only as a means of approaching an understanding of a continuously changing world. It is one of the shortcomings of many economic theorists that they have forgotten the purpose underlying the introduction of this hypothetical concept into our analysis. We cannot do without this

³⁸Mises indicated that he had long been dissatisfied with the price theory of Menger and Böhm-Bawerk, but only by the early 1930s was he able to clearly articulate his objections (Mises 1978, pp. 59–60).

³⁹See Mises (1993, pp. 41–45) for a listing of published and unpublished writings during these years.

notion of a world where there is no change; but we have to use it only for the purpose of studying changes and their consequences, that means for the study of risk and uncertainty and therefore of profits and losses. (Mises 1980, pp. 230–31)

Regarding his effort to incorporate money into the Mengerian theoretical system, Mises identified his immediate inspiration as his opponents in the socialist calculation debate of the 1930s. These economic theorists, under the influence of the general-equilibrium approach, advocated the mathematical solution to the problem of socialist calculation. As Mises argued:

They failed to see the very first challenge: How can economic action that always consists of preferring and setting aside; that is, of making unequal valuations, be transformed into equal valuations, and the use of equations? Thus the socialists came up with the absurd recommendation of substituting equations of mathematical catalactics, depicting an image from which human action is eliminated, for the monetary calculation in the market economy. (Mises 1978, p. 112)

But without an adequate theory of monetary calculation, which ultimately rests upon a unified theory of a money-exchange economy, Mises realized that there could be no definitive refutation of the socialist position. Accordingly, Mises revealed:

My *Nationalökonomie* finally afforded me the opportunity to present the problems of economic calculation in their full significance. . . . Only in the explanations offered in the third part of my *Nationalökonomie* did my theory of money achieve completion. Thus I accomplished the project that had presented itself to me thirty-five years earlier. I had merged the theory of indirect exchange with that of direct exchange into a coherent system of human action. (Ibid.)

Thus, *Nationalökonomie* marked the culmination of the Mengerian theoretical approach, and, in a real sense, the rebirth of the Austrian School of economics. The causal-realistic approach now had the great systematic treatise that it required in order to definitively distinguish it from the rival approaches to price theory. When one compared *Nationalökonomie* to the influential restatement of the general-equilibrium approach Hicks had achieved in *Value and Capital*—which represented a fusion of the Walras–Pareto with the Wieser–Schumpeter traditions—the fundamental and irreconcilable differences between the Mengerian and Walrasian approaches were at last starkly and unmistakably revealed.

Hayek's reaction to *Nationalökonomie* is indicative of the wide gulf separating Mises's Mengerian approach to economic theory from that of the fusionists of the fourth generation. Although his 1941 review was generally sympathetic to the work, Hayek is perplexed by the fact that Mises had been unaffected by "the general evolution of our subject during the period over which his work extends [i.e., during the previous twenty to thirty years]" and that the development of Mises's thought during this period "appears to be decidedly autonomous." Hayek's bemusement stemmed from his failure to comprehend the fact that *Nationalökonomie* represented Mises's deliberate attempt to "autonomously" reconstruct a paradigm that could not be reconciled with the "general evolution" of economics in the direction of the Walrasian–Marshallian fusion of which Hayek himself approved. Particularly revealing is Hayek's prediction that the "central part" of the book, viz., the sections on monetary calculation and catalactics, would not be

its main interest to most readers. But, of course, these are precisely the sections that contain the substance of the reconstructed system of Mengerian economic theory (Hayek 1992, pp. 150–51).

With the Austrian school poised for a vigorous comeback on the strength of the publication of *Nationalökonomie* in early 1940, disaster struck. Cut off from the German-speaking market by the war in Europe, its Swiss publisher went out of business and the sale and distribution of Mises's treatise ceased. By the time the English-language edition was published by Yale University Press in 1949, the moment had passed for the immediate restoration of the influence of Mengerian price theory within the mainstream of economic theory. Leadership in pure theory had passed from Europe to the United States after the war, due to the migration of many Central European economists to America, combined with the enormous expansion of U.S. higher education faculties induced by the tuition subsidies created by the G. I. Bill (Barber 1970, p. 14). At the same time, intellectual currents were developing in the U.S. that led to a merging of the Marshallian and Walrasian approaches into an invincible orthodoxy.

Marshallian price theory in various forms had dominated the textbook literature and undergraduate teaching in the U.S. since the 1920s, but began to lose some of its luster by the late 1930s. By this time, economists began to perceive the limits of the Marshallian partial-equilibrium method that underlay the imperfect-competition revolution and, in works like Robert Triffin's *Monopolistic Competition and General Equilibrium Theory* (1940), attempts were made to incorporate it into general equilibrium theory. In the meantime, however, partial-equilibrium analysis had been transplanted to the Midwestern United States after World War I where it was expounded by Jacob Viner who had learned it from his Marshallian mentor, Taussig. The partial-equilibrium approach was absorbed by Viner's students at the University of Chicago along with Frank Knight's concept of perfect competition. The formal amalgamation of Marshall, Knight, and Viner, or "Chicago price theory" as it came to be called, was given its definitive statement in George Stigler's *The Theory of Competitive Price* published in 1942. Stigler's textbook, whose subsequent editions bore the title of *The Theory of Price*, was the precursor of and inspiration for the deluge of intermediate price-theory and microeconomics textbooks that were used to inculcate Marshallian partial-equilibrium price analysis into generations of American undergraduates in the postwar era. Needless to say, these books did not instruct their readers in the problems of monetary calculation or even alert them to their existence.⁴⁰

There was a second, independent factor that produced a resurgence of interest in Marshallian price theory among American economists. Economists found their experience as policy advisers to the U.S. government during World

⁴⁰See, for example, George Stigler (1965). "Money" does not appear once in the index of this book. In a more recent Chicago-style price theory text we find the following statement:

Although prices and values are often given in terms of money, money has nothing essential to do with the analysis. . . . It is often asserted that economics is about money or that what is wrong with economics is that it only takes money into account. That is almost the opposite of the truth. While money does play an important role in a few areas of economics, such as the analysis of business cycles, price theory could be derived and explained in a pure barter economy without ever mentioning money. (Friedman 1990, pp. 100, 102–03)

War II very agreeable and were eager to continue in this role in the postwar world. And given the problems of postwar reconstruction in Europe and Japan in the face of the looming Soviet threat and of the reconversion of the U.S. war economy to a peacetime footing, there certainly was a continuing demand for their services. More importantly, due to the inevitable "ratchet effect" that characterizes government expansion during crises such as the Great Depression and World War II, the U.S. government had permanently increased its scope of intervention into the American economy. It, therefore, now required a patina of scientific justification and guidance for its peacetime "economic management" functions that the economist as policy adviser was well suited to perform. But policy advising meant giving reasonably clearcut answers to the problems confronting policymakers. And for managing particular industries, markets and sectors, e.g., antitrust, labor, agriculture, and defense, partial-equilibrium models were made to order.

In the meanwhile, the American economics profession was evolving toward a technique-driven, journal-centered and positivistic "research" culture, and the formalizing and testing of partial-equilibrium models and their adaptation to particular problems served as grist for such research.⁴¹ This culture also fueled interest in general-equilibrium analysis, which had secured a firm foothold in the U.S. economics profession with the publication of Samuelson's *Foundations of Economic Analysis* in 1947. Articles dealing with the problems of existence, uniqueness and stability of general equilibrium as well as with the application of the model to international trade and welfare economics quickly found their niche in the journals. These two research trends were eventually reflected in the peculiar fusion of Marshallian and Walrasian approaches found in almost all descendants of the Stigler intermediate price-theory text. Needless to say, in this era of arrant formalism there was no room for the causal-realistic price theory of Carl Menger.

This state of affairs was recognized and summed up by the editor of a collection of readings in price theory in 1971:

The shades of Jevons, Menger, Edgeworth, Wicksteed, Wicksell, Clark, and Fisher may justifiably be offended by the attribution of modern price theory to two sources, Alfred Marshall and Léon Walras, but these two scholars have had far and away the most influence on twentieth century thought. . . . In contrast with Marshall's down-to-earth struggle with the interpretation of the detailed working of the economy stands Walras's grand construction of general equilibrium. In a typical British or American textbook on price theory nine-tenths of the contents stem from Marshall's work, general equilibrium only getting notice in a last chapter or appendix. (Townsend 1971, p. 57)

One need only add that the shades of Menger and Wicksteed at least (Clark lived until 1938) would have been feeling very restless by the 1930s.

This discussion suggests a revisionist thesis regarding the main reason why the influence of Austrian economics, seemingly at its international peak in the mid-1930s, should have declined so precipitously that, arguably, by 1940—and certainly by the end of World War II—it was absolutely nil. The conventional view is that Austrian economics was buried by the "Keynesian avalanche." But this is only true if we acquiesce to the mistaken identification of the essence of Austrian economics as

⁴¹For evidence of this formalization, see Backhouse (1998, pp. 85–107).

monetary and business cycle theory. In fact, the Cambridge cycle theories of Pigou and Robertson were submerged along with the Austrian theory, while Marshallian imperfect competition theory not only survived, but has continued to flourish down to this very day. Similarly, Chicago price theory and Wicksell's and Cassel's general-equilibrium analyses endured the foundering of the Fisherian quantity theory and the Stockholm School's monetary "sequence analysis," respectively.⁴² No, causal-realistic price theory, the quintessence of Austrian economics, was not suddenly undone in its prime by the thunderous eruption of Keynesian macroeconomics in the mid-1930s in Great Britain. Rather, abandoned by almost all of its defenders while still in an immature state, it had begun to be silently usurped by a rival approach many years before in the land of its birth.

Returning to Mises's achievement, the writing of *Nationalökonomie*, then, was a profoundly lonely venture. By the late 1930s, Mises could count on no intellectual allies in his solitary quest to revive and perfect the Mengerian tradition. As Hayek approvingly noted, the Austrian School of economics was virtually a closed chapter in the history of economic thought as Mises toiled away in Geneva at the close of the 1930s. When the first fruits of his labors withered on the vine unattended by a world otherwise occupied, Mises persisted and delivered *Human Action* into a positively hostile and uncomprehending world almost a decade later. It was this great work that, however improbably, diverted the course of intellectual history by igniting the modern revival of research in the Mengerian paradigm that started in the early 1960s and has continued to flourish down to the present day. But an account of this chapter of the history of the Austrian School has yet to be written.

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⁴²In developing their "dynamic method" of sequence analysis, the younger Swedes, such as Erik Lindahl, Gunnar Myrdal, and Erik Lundberg took as their point of departure Wicksell and Cassel's "static method" of analyzing the "stationary state" or general equilibrium (Hansson 1982, pp. 18–22). Cassel's version of general-equilibrium theory constituted the core of the Heckscher–Ohlin model of international trade, which generated a great deal of interest after World War II; and George Halm's exposition of the socialist calculation debate in his popular postwar textbook included an appendix on the Casselian system of equations (Caves 1967, pp. 23–57; and Halm 1960, pp. 320–28).

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