The Influence of the Currency-Banking Debate on Early Viennese Monetary Theory

by

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Abstract

This thesis seeks to examine the intellectual heritage of the debate between the Currency School and the Banking School of 19th-century England on three Viennese economists: Rudolf Hilferding, Ludwig von Mises, and Joseph Schumpeter. First, we provide a preliminary sketch of relevant biographical information regarding Hilferding, Mises, and Schumpeter, and their intellectual relationship. Second, we show examine and contrast the theories of entrepreneurship of each economists, showing the primacy of the entrepreneur in their respective growth theories. Third, we provide a brief summary of the debate between the Currency School and the Banking School. Fourth, the influence of the Currency-Banking debate on the monetary theories of Hilferding, Mises, and Schumpeter is explored.

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INTRODUCTION

As Joseph Schumpeter would say, there are those ideas which "pass away for good after a time that varies between an after-dinner hour and a generation," and those that "suffer eclipses but… come back again, and… come back not as unrecognizable elements of a cultural inheritance, but in their individual garb and with their personal scars which people may see and touch" (1942, p. 3). No student of the history of ideas can fail to notice that certain strains of thought and particular problems ebb and flow throughout intellectual history, no matter their reception or resolution in their epoch of origin.

It is no surprise then that in the arena of economics there are many such ideas, and it is with one in particular that this thesis will concern itself. Few issues have been more contentious in both the arenas of economic theory and policy than those surrounding money, banking, and economic development. It is no surprise then, that we find heated debates on these issues permeating almost every major school of economic thought in both the 19th and 20th centuries.

In the early 20th century, Austria in particular witnessed a renewed interest in these issues, mostly as a result of the publication of three treatises on the problems of money, banking, and economic development. The three treatises were Rudolf Hilferding's *Finance Capital* (1910), Joseph Schumpeter's *The Theory of Economic Development* (1911), and Ludwig von Mises' *The Theory of Money and Credit* (1912). Ostensibly, these three thinkers could not be more different. Hilferding was the heir

apparent to Marxist economic doctrine; Mises was a staunch supporter of classical liberalism, and Schumpeter was independent of any school, although he was an ardent supporter of much of what was to become Walrasian orthodoxy in economics. Yet for all their differences there are often subtle similarities that run through their respective treatises. The three authors were all personally and intellectually familiar with each other, and in many ways address each other's theories through their respective works.

We will argue that these treatises can only be completely understood through a careful examination of the intellectual links between these three economists and the debate in 19th century Britain between the Banking School and the Currency School. On the one hand is Hilferding, who represents the Banking School, which also included John Fullarton, John Stuart Mill, and Thomas Tooke. On the other hand is Mises, who is an intellectual successor to the Currency School, whose other members included David Ricardo, Sir Robert Peel, and Robert Torrens. Finally there is Schumpeter, defying easy classification, but adopting both Banking and Currency arguments.

An attempt to compare three treatises as ambitious as these is not without its difficulties. The different methods employed, the conflicting viewpoints on even the most fundamental economic principles, and the sheer range of topics make the task of comparison extremely difficult. Thus, it is often the case that while one or two authors lavish special attention on a particular topic, a third author might ignore that topic altogether. Therefore it is unavoidable that our analysis will sometimes be lengthy for two economists while being brief for the third.[1]

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[1] Also, because we are interested in the discussion between these economists, we will also incorporate the criticism leveled by each economist at the work of his peers, in addition to the three original treatises.

We will proceed as follows: in Chapter 1 we provide a brief summary of the relevant biographical information of Hilferding, Mises, and Schumpeter, in order to better understand their individual research agendas as well as the intellectual milieu in which they worked. In Chapter 2, we analyze the foundation of each economist's theory of economic growth. For each economist, this will depend upon their individual theories of entrepreneurship, which inform their views on both the nature of economic growth and their individual monetary theories. Once this is accomplished, we move to Chapter 3, a description of the debate between the Banking and Currency Schools in 19th century Britain. This will bring us to Chapter 4, a discussion of how the theories first posited in the Currency-Banking debate were later absorbed and elaborated upon by Hilferding, Mises, and Schumpeter. Finally, we provide some concluding discussion of the relevance of these debates on modern discussions of money and banking.

CHAPTER 1

BIOGRAPHICAL OUTLINES

Three Viennese Economists[2]

Before we may turn to a more specific analysis of their individual treatises, we must first consider these economists and their relationship to each other, personally and academically, in order to highlight their individual theories and research agendas. One of the most significant facts about these three economists is that, although their individual methods and doctrines were dissimilar, each had an intimate connection with the orthodoxy of the "Austrian" school of economists, through the teaching of Eugen von Böhm-Bawerk. This influence informs all three treatises, although to different degrees. Nevertheless, it serves as an excellent point of departure from which to view these three contributions to economic theory.

A. Rudolf Hilferding

Rudolf Hilferding (1877-1941) is probably the least well-known of these three economists, despite his considerable influence on the intellectual currents of Marxism in the first decades of the 20th century. Born in Vienna, Hilferding graduated from the University of Vienna in 1901 with a doctorate in medicine, although he soon left private

[2] The authoritative source on Mises' life and work is Jörg Guido Hülsmann, Mises: The Last Knight of Liberalism. For Mises' personal thoughts on Vienna and on his early life, cf. Memoirs. For Hilferding, the only comprehensive source in English is F. Peter Wagner's Rudolf Hilferding: Theory and Politics of Democratic Socialism. There are many biographies of Schumpeter, but the most important for our study is Robert Loring Allen's Opening Doors: The Life and Work of Joseph Schumpeter. The following sketches are taken mainly from these sources, except where cited.

practice to devote himself to the study of classical political economy. From an early age Hilferding had been an advocate of socialism and had become involved in the labor movement in Austria, two areas of intellectual interest that he would retain throughout his life.

Hilferding was a member of what became known as the Austro-Marxist school of thought. The key figures in this school were Max Adler, Otto Bauer, Karl Renner and Hilferding himself. The school is distinct among the many branches of Marxism in that it attempted to develop a scientific approach to Marx's economic and sociological theories, in addition to formulating a Marxist approach to epistemological questions that addressed and incorporated sources outside of Marxism's domain, such as Neo-Kantianism and early logical positivism (Bottomore and Goode, 1978, esp. pp. 15-18). The Austrian politician and Austro-Marxist Otto Bauer describes the social and intellectual milieu of the Austro-Marxists:

> Whereas Marx and Engels began from Hegel, and the later Marxists from materialism, the more recent 'Austro-Marxists' had as their point of departure [Immanuel] Kant and [Ernst] Mach. On the other side, in the universities these 'Austro-Marxists' had to come to terms with the so-called Austrian school of political economy, and this controversy too influenced the method and structure of their thought. Finally, living in the old Austria rent by national struggles, they all had to learn to apply the Marxist conception of history to very complicated phenomena which defied analysis by any superficial or schematic application of the Marxist method. (Bauer, 1978, pp. 45-46)[3]

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[3] It is intriguing to note that of the two distinct schools of economic thought that emerged in Vienna at this time, the "Austrian" and "Austro-Marxist" schools, both focused much on addressing the

At the center of the study of economics after the turn of the century was the seminar in economics held by Eugen von Böhm-Bawerk at the University of Vienna. All aspiring intellectuals with an interest in economics attended, and the seminar was comprised of the most promising economists and social scientists in Vienna, as well as figures that would play important roles in the history and politics of Austria and Germany in the inter-war period. Members included Otto Bauer, Nikolai Bukharin, Rudolf Hilferding, Emil Lederer, Ludwig von Mises, Otto Neurath, Joseph Schumpeter, Felix Somary, Richard von Strigl, and Franz Weiss (Hülsmann, 2007, p. 145).

Hilferding made his debut as an economist by writing a response to Böhm-Bawerk's critique of Marx, titled *Böhm-Bawerk's Marx-Kritik*.[4] Hilferding's "anti-critique" as he called it, was largely a restatement of Marx's original doctrines, and received very little attention outside Marxist circles (Hilferding, 1949). However, the paper caused a sensation in Böhm-Bawerk's seminar, although fellow socialist Otto Bauer commented at the time that Hilferding "did not grasp the problems at hand" (Mises, 2009, p.31). After this initial salvo, Hilferding set to work in 1906 writing a comprehensive treatise describing the evolution of capitalism.

Finance Capital[5] was published in 1910, and was Hilferding's major achievement in economics. In fact, the book is regarded by some Marxists as a spiritual substitute for the final unfinished volume of Marx's *Das Kapital*. Hilferding sought to explain the evolution of capitalism through a series of developmental phases not fully explained by Marx, as well as to explain in detail the imperialistic tendencies of capitalism, as well the

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epistemological character of economics, and establishing in what sense economics may be treated as a science. Cf. Bottomore and Goode (1976), Menger (1996), and Mises (2003).

[4] "Böhm-Bawerk's Criticism of Marx."

[5] "Das Finanzkapital. Eine Studie über die jüngste Entwicklung des Kapitalismus." The subtitle is translated as "A study of the latest phase of capitalist development."

nature and causes of the capitalist business cycle. Although Marx had discussed the development of capitalism into socialism, he had left the economic aspects of his theory largely undefined at the time of his death, and Hilferding attempted to provide economic theories sufficient to make a scientific case for Marx's historicism.

In discussing the nature of "the latest phase of capitalist development" Hilferding further developed the Marxist theory of money and banking, and tried to explain the place of banking and financial institutions in capitalist development. The arguments will be discussed in Chapters 2 and 4; what matters for us though, is that *Finance Capital* elevated Hilferding to the status of one of the most important living socialist economists (Sweezy, 1949, p. xvi).

"Important" is perhaps a more appropriate term than, say, "revered," because although the work received much attention and praise, some responses to *Finance Capital* were mixed. There were relatively few economic theorists left in the Marxist tradition in the early twentieth century, and after the marginal revolution of the 1870s, the "scientific" foundation of economic theory— the labor theory of value— had become increasingly discredited. Most of the prominent writers were revolutionaries rather than economists. Leon Trotsky, for example, considered Hilferding an "armchair" Marxist and criticized him for lacking what he considered to be an appropriately revolutionary spirit (Trotsky, 1970, pp. 206-207, 213). Vladimir Lenin praised *Finance Capital* in his own *Imperialism: the Highest Stage of Capitalism*, but qualified his endorsement, saying "In spite of the mistake the author makes on the theory of money, and in spite of a certain inclination on his part to reconcile Marxism with opportunism, this work gives a very valuable theoretical analysis of 'the latest phase of capitalist development'" (Lenin, 1964,

p. 195). Lenin never explained what he meant by Hilferding's "mistake" in monetary theory, but this barb is intriguing considering our later explorations into Hilferding's theories of money and banking. On the other hand, *Finance Capital* did command considerable authority in some Marxist studies of imperialism and "organized capitalism," on which the book places considerable emphasis. Nikolai Bukharin, for example, was heavily influenced by Hilferding, and *Finance Capital* served as the most important influence in his studies of the evolution of capitalist society (Cohen, 1975, pp. 19, 21, 25-26, 28).

After the First World War, however, the influence of the Austro-Marxist school waned due to internal conflicts among the various branches of the Marxist creed, and after 1917 the Austro-Marxists, Hilferding among them, were accused of being mere "reformists" and were dismissed from the prevailing Marxist orthodoxy. Nevertheless, as we hope to show, Hilferding's work remains more than simply a tombstone marking the final resting place of a forgotten economic theory, but to some extent remains vigorous even a century after its original appearance.

B. Ludwig von Mises

Ludwig von Mises (1881-1973) is the only of these three Austrian-born economists who can truly be said to belong to the "Austrian" school of economic thought; the school founded by Carl Menger and developed in two major branches by Eugen von Böhm-Bawerk and Friedrich von Wieser. Mises entered the University of Vienna in 1900, and received his doctorate in law in 1906. During his studies he attended the seminars of the great Viennese economists of his day: Eugen von Böhm-Bawerk, Carl

Grünberg, and Eugen von Philippovich.[6] It was Böhm-Bawerk's seminar, however, that played the most important role in the development of his economic thought.

What distinguished Mises from several of the most important students of the early Austrian school was in fact his devotion to Böhm-Bawerk and Menger, and the relatively small emphasis he placed on the teaching of von Wieser, whereas Wieser exercised a powerful influence on economists such as Friedrich Hayek and Joseph Schumpeter. The influence of Menger led Mises to focus on Menger's approach to monetary theory more than his contemporaries, a fact which will prove important for our later discussions.

Mises began investigating the economic problems surrounding money in 1906, in order to investigate a claim of economist Karl Helfferich in his 1903 work *Das Geld* that the theory of marginal utility had failed to explain the value of money. Mises' investigations into monetary issues led to two early essays, *Die Wirtschaftspolitischen Motive der Österreichischen Valutaregulierung*[7] and *Das Problem gesetzlicher Aufnahme der Barzahlung in Österreich-Ungarn*,[8] which inspired Mises' interest in writing a comprehensive work on the theory of money, which he began in 1909.

The Theory of Money and Credit[9] first appeared in 1912, garnering Mises the reputation of one of the most important monetary economists in Austria-Germany. The book received attention from some of the most notable economists of the time, and was the subject of much debate in the last semesters of Böhm-Bawerk's seminar, prior to the latter's death in 1914. The American economist Benjamin Anderson praised it in his own

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[6] He was also personally familiar with Carl Menger (1840-1921), the founder of the Austrian school, although Menger had given up his university chair in 1903.
[7] "Economic Motives of the Austrian Foreign Exchange Controls."
[8] "The Problem of the Legal Resumption of Gold Payments in Austria-Hungary."
[9] "Theorie des Geldes und der Umlaufsmittel." For more on the significance of the above translation of the original German title, see below, Chapter 3B(2).

work *The Value of Money*. John Maynard Keynes gave the book a mixed review, describing it first as “critical rather than constructive, dialectical and not original,” and later as “not to be denied considerable merits,” but concluded that “one closes the book, therefore, with feeling of disappointment that an author so intelligent, so candid, and so widely read should, after all, help one so little to a clear and constructive understanding of the fundamentals of his subject” (Keynes, 1914, p. 417).[10]

In his analysis of the Austrian school’s monetary views, Schumpeter recounts, “From the first, the Austrians entertained a wish, not unnatural from their standpoint, to apply their marginal utility theory to the case of money” (Schumpeter, 1963, p. 1089). It was largely Mises’ persistent effort to explain how Menger and Böhm-Bawerk’s approach to marginal utility (although the phrase “marginal utility” was actually coined by Wieser) could be applied to money that distanced Mises from other monetary economists of his era. This attempt is in fact the cornerstone of his exposition of the economic problems found in *The Theory of Money and Credit*.

It is true however that Mises’ theories of money, banking, and the business cycle were not entirely new. He adopted much of his approach from the “Currency School” of 19th-century Britain. These economists emphasized the inflationary effects of the expansion of the supply of “fiduciary media,” and formulated the first version of what Mises would later dub the “circulation credit theory of the trade cycle” (Mises, 1998, p. 568 ff.). Mises’ endorsement of the “Currency School” and his rejection of the “Banking School” is a major, if neglected, theme of *The Theory of Money and Credit*. The

[10] Although later, in regard to the works of Mises, Hans Neisser, and Friedrich Hayek, Keynes later admitted that he did not possess the necessary command of German to understand new ideas in the German language, and therefore could not understand the original contributions of these authors (Keynes, 1930, p. 199).

intellectual debt between the economists of the Banking and Currency Schools on the one hand, and the monetary economists of turn-of-the-century Austria on the other, is the central focus of this thesis. The doctrines of the two British Schools will be discussed in greater detail in Chapter 3.

C. Joseph Schumpeter

Joseph Alois Schumpeter (1883-1950) is the most well-known of the economists trained in turn-of-the-century Austria, and enjoyed probably the greatest impact in terms of the renown of his contributions to economic theory, the history of economic thought. An intellectual prodigy from an early age, Schumpeter received his doctorate in law from the University of Vienna in 1906. In 1908, he distinguished himself with a treatise on economic theory and methodology, *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie*.[11] The book was a stalwart attack on psychological methods in economics as well as a defense of "methodological individualism," a phrase which Schumpeter coined. Although the book lacked influence on the economic trends of its day, it ensured that by the age of twenty-six Schumpeter was one of the most well-known of the young economists in the German-speaking world (Allen, 1991, I, pp. 73-94).

Schumpeter published, in 1911, his second major work, *Die Theorie der wirtschaftlichen Entwicklung*, or *The Theory of Economic Development*. Although Schumpeter was never an "Austrian" economist in any strict sense of the term, *The Theory of Economic Development* marks a decisive step away from the influence of

[11] "The Nature and Essence of Theoretical Economics."

Böhm-Bawerk and toward Walras (Allen, 1991, I, pp.73-94).[12] In particular, Schumpeter's theories of profit and interest were markedly different from those of his "Austrian" teachers. His theory of entrepreneurship too, and its incorporation into economic theory as a method of explaining dynamic change in a Walrasian-style general equilibrium, is also largely original.

As will be discussed further below, Schumpeter was influenced by von Wieser probably far more than he was by Böhm-Bawerk, especially in the area of entrepreneurial theory. In addition, it was at least partially through Wieser that Schumpeter acquired strong ties to Walrasian economics, and in particular an attachment to the concept of Walrasian general equilibrium, which plays a key role in his work on economic development.[13] In this sense, Schumpeter occupies a curious middle ground between his two contemporaries, representing neither Böhm-Bawerk's embattled opponent (Hilferding) nor his devoted disciple (Mises), but rather something in between.

We have then three economists and three schools of thought: the Walrasian-based theory of Schumpeter rising to prominence, the Austrian School of thought led by Böhm-Bawerk and continued by Mises constituting essentially Viennese orthodoxy, and the Austro-Marxists, attempting primarily through Hilferding to breathe new life into the declining economics of the labor theory of value.

[12] In fact, Böhm-Bawerk wrote a lengthy review of The Theory of Economic Development, of which he was highly critical, and in particular singled out Schumpeter's theory of interest for censure (Hülsmann, 2007, pp. 173-4).

[13] Schumpeter noted in several of his works the intellectual debt he owed to both Walras and Wieser (Haberler, 1950).

D. Mises Contra Mundum

Mises and Schumpeter represented two very different approaches to the study of economics. While Mises would forever be a disciple of Böhm-Bawerk and Menger, Schumpeter embraced the contributions of economists from many schools of thought, especially the Lausanne School. The most fundamental difference between their individual approaches was epistemological. While Mises maintained, following John E. Cairnes, Carl Menger, Jean Baptiste Say, and Nassau Senior that economics was an *a priori* science, Schumpeter was from an early age an advocate of the then-emerging trend toward mathematics and statistical work in economics, and also of early attempts to explore economics as a positive science. Mises would steadfastly develop his "praxeological" method throughout his life, while Schumpeter always looked for new insights into the nature of theoretical economics, especially from the fields of econometrics and mathematical economics.[14]

As Hayek described the two young economists, "[Mises] completely lacked the adaptability of his brilliant seminar fellow Joseph Schumpeter… In fact, it appeared to me as if these two most important representatives of the third generation of leading Austrian economists… both got on each other's nerves" (Hayek, 2009, xviii). A certain tension between the two economists is evident. For example, Mises chastises Schumpeter for "align[ing] himself with Wieser and Walras but not with Menger and Böhm-Bawerk. To [Schumpeter], economics is a discipline of "economic quantities" and not one of human action. His *Theory of Economic Development* is a typical product of this

[14] For Mises' views on economic science, as well as his methodological influences, cf. Hoppe (1995, pp. 10-12), and Mises (2003, pp. 18-24). For Schumpeter's position, cf. Allen (1991, pp. 141, 146-7, and throughout; Hülsmann, 2007, pp. 165-170).

equilibrium theory" (Mises, 2009, p. 28). Mises did however recognize several contributions that Schumpeter made to economic science.[15] Schumpeter in his turn recognized Mises as the originator of the idea of "forced savings," a concept extremely important for our discussions of monetary theory below. Nevertheless, despite these minor acknowledgements and a certain degree of mutual respect, there remained a fundamental difference between the methods of Mises and Schumpeter that, for the most part, prevented intellectual gains from trade.

Between Mises and Hilferding there was even less of an intellectual affinity. As a dedicated Marxist, Hilferding's defense of the labor theory of value placed him even further apart from Mises than Schumpeter. Mises' intransigence on matters of economic theory, combined with a lack of intellectual common ground, meant that here too, Mises would have little effect on the views of his contemporary, and vice versa. In fact, Hilferding negatively reviewed Mises' *The Theory of Money and Credit* for the socialist theoretical journal *Die Neue Zeit*. The content of the review is discussed below in Chapter 4, but for the present moment, suffice it to say that neither economist exercised a significant influence on the thinking of the other.

E. Hilferding's Early Influence on Schumpeter

The relationship between Hilferding and Schumpeter, however, is another matter. Schumpeter met Hilferding at the Theresianum gymnasium, an exclusive school for the Viennese aristocracy, and it appears they remained friends for some years (Haberler, 1950; Hülsmann, 2007, p. 163-4). Hilferding, along with fellow University of Vienna

[15] Cf. Hülsmann, 2007, pp. 164-5, 165n111.

student Emil Lederer, even invited Schumpeter to serve on the German Socialization Committee in 1919, and later helped Schumpeter obtain an appointment to the Austrian Finance Ministry (Allen, 1991, I, pp. 162, 165).[16] [17]

There are two major ways that Hilferding influenced Schumpeter, only one of which we discuss here.[18] The most notable is in regard to Schumpeter's famous theory of the decline of capitalism. As mentioned above, Hilferding was particularly interested in the development of capitalism and the tendency of the capitalist system to metamorphose into a socialist society, an idea adopted from Marx and developed at length in *Finance Capital*.[19] Hilferding argued that the 'latest phase' of capitalist development consisted in the increasing cartelization and monopolization of capitalist industry, driven mostly by the combination of "business capital" and "bank capital," which combined to form "finance capital." In this stage of development, the state is subordinated to financiers, and engages in increasingly expansionist, protectionist, and imperialistic policies on their behalf. This development is driven by technological innovations which secure significant profits for the large firms. The result is the concentration of industry determined purely by technological considerations; this consolidation proceeds until ultimately socialism emerges as the dominant economic arrangement. Schumpeter presented a similar theory in his later work *Capitalism, Socialism, and Democracy*. Schumpeter's theory, however,

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[16] Hilferding's influence (combined with that of several other economists) may actually explain Schumpeter's early dissatisfaction with and desire to reach beyond the economic theories of Vienna and embrace the doctrines of other schools, particularly the Lausanne School.

[17] For discussions of Schumpeter's relationship with and intellectual debt to Hilferding, as well as to the broader Austro-Marxist tradition, see Bottomore and Goode (1978, pp. 24-5, 35-6); and Michaelides and Milios (2005).

[18] The second point of influence between Hilferding and Schumpeter is on the issue of entrepreneurship, and is addressed in Chapter 2.

[19] Finance Capital was published in 1910, but had been largely written by 1905 or 1906, which explains how its ideas could have influenced Schumpeter during the writing of The Theory of Economic Development.

stressed the elimination of entrepreneurial innovation as the fundamental cause of the decline of capitalist society, and argued that a lack of innovation would lead to a system of bureaucratic economic stagnation. He believed that gradually the innovative success of capitalism could be reduced to routine, eliminating the need for entrepreneurs, who would find their own economic function obsolete in an increasingly mechanized and planned production process. Society's independence from the entrepreneur would gradually erode certain social arrangements which support the capitalist system, such as the institution of private property. Gradually, capitalism's very successes would remove all its own economic and social supports. This situation would very easily lend itself to "socialism of a very sober type" (Schumpeter, 1942, pg. 131).[20]

One intriguing difference between the two presentations of capitalist evolution is that while Hilferding argues that banking institutions and monetary policy will lead the movement toward socialization, this emphasis is entirely missing from Schumpeter's analysis. This is perhaps due to Schumpeter's emphasis on the necessity of credit expansion to fuel economic development. Specifically, if one assumes, as Schumpeter does, that the innovation and growth of the capitalist system takes place only through such expansionary measures, one cannot really connect the expansion of credit with the decline of the capitalist system through stagnation, because these two tendencies are fundamentally opposed in Schumpeter's system (although for Hilferding they constitute two necessary phases within the internal logic of capitalist development). In any case, the fundamental differences between the two thinkers will be shown below to be the source of their diverging views in regard the nature of capitalist evolution.

[20] For a critical assessment of this theory from the perspective of entrepreneurial theory, see McCaffrey (2009).

Although the direct influence of Hilferding on Schumpeter is to some extent tangential to our argument, it is important to note the sympathy Schumpeter had with Hilferding's ideas, especially because both economists shared grand evolutionary visions of capitalist society.

CHAPTER 2

THREE THEORIES OF ENTREPRENEURSHIP

In standard expositions of economic principles, entrepreneurial theory is not typically associated with issues of money and banking. One is broadly microeconomic, the other macroeconomic. However, for Hilferding, Mises, and Schumpeter, these two issues are far more closely related than one might expect given the usual dichotomy in economic studies.

This is especially true for Mises and Schumpeter, both of whom depend upon entrepreneurial activity to explain economic growth and development. Mises relies on the entrepreneur-capitalist who saves in order to expand production, while Schumpeter's innovator-entrepreneur uses credit in order to introduce new combinations of the factors of production. For both these economists, the entrepreneur is an integral part of both the micro- and macro-economic aspects of economic theory. The entrepreneur is also important, although to a lesser extent, for Hilferding, who utilizes a simpler entrepreneurial theory than his contemporaries, imagining the entrepreneur as a sort of highly-ranked manager. Nevertheless, these approaches to entrepreneurship will inform our discussions of monetary theory, so we will examine them in turn in order to understand how they form the microeconomic basis of the macroeconomic principles of money and banking.

A. Hilferding: The Entrepreneur as Manager

As is typical in the Marxist theoretical literature, the entrepreneur plays a relatively small role in Hilferding's economic system. Nevertheless, Hilferding's entrepreneurial theory is important for our investigations, both in its own right, and in the sense that understanding Hilferding's entrepreneur permits a clearer picture of Hilferding's greater vision of capitalist development.

According to Hilferding, in the earliest phases of capitalism— before the emergence of the corporation as a major economic form— the functions of capitalist and entrepreneur were one and the same. This situation held so long as enterprises were individually owned. However, with the advent of the joint-stock company, the functions of the capitalist and entrepreneur become distinct. In fact, Hilferding went so far as to claim that the transition from individually-owned business to joint-stock company is the defining characteristic of the latest stage of capitalism: "Modern capitalist development… can only be comprehended in terms of the ascendency of the corporation and its causes" (Hilferding, [1910] 1981, p. 108).

Hilferding begins his discussion of entrepreneurship with a distinction between "money capitalists" and "industrial capitalists."[21] Money capitalists are the financiers of a corporation: "His only function is to lend his capital and, after a period of time to get it back with interest… so also the shareholder functions simply as a money capitalist" (p. 107). The money capitalists invest wherever they see an opportunity to earn interest, and it is they who are the owners of any capital lent to firms in the economy. As the owners, it is they who they bear the uncertainty involved in investing.

[21] Thus, as we shall see, Hilferding avoids the classical conflation of the entrepreneur and capitalist, at least de facto, if not de jure.

"Industrial capitalists" are the entrepreneurs in Hilferding's system (although Hilferding used the term, "promoter" rather than "entrepreneur"). Entrepreneurs are employed by specific enterprises over long periods of time. The entrepreneur manages resources *within* the firm, directing production and introducing innovations in order to increase the firm's profits. The entrepreneur is essentially the chief manager of the enterprise, owning no capital and bearing no uncertainty. As managers, the entrepreneurs are the engineers of enterprise, operating according "to the purely technical requirements of production" (p.126). Because of this technology-oriented style of management, the entrepreneurs alone are capable of focusing on the long-run problems of the firm. These long-run interests must take precedence over "the interest which owners have in obtaining the largest possible profit as quickly as possible, their lust for booty, which slumbers in every capitalist soul" (p. 126).

Unlike most other entrepreneurial theorists, Hilferding's approach utilizes a specifically Marxist terminology, making it somewhat difficult to characterize. In Hilferding's own terms, the entrepreneur's central role is to convert capital that simply generates the average rate of profit into capital that is capable of bearing interest to the capitalists who finance the enterprise. Hilferding characterizes entrepreneurial profit as "The difference between capital which earns the average rate of profit and capital that earns the average rate of interest. This is the difference which appears as 'promoter's profit', a source of gain which arises only from the conversion of profit-bearing into interest-bearing capital" (p. 112).[22]

[22] Hilferding alone among our economists is able to express the entrepreneur's profit in terms of a strict formula (p.114). Entrepreneur's profit is defined as $P = \frac{100\,Y}{d} - \frac{100\,Y}{p}$, where
P = entrepreneur's profit
p = average profit

There are obvious similarities between this exposition of the entrepreneurial function and the seminal discussion found in Coase's "The Nature of the Firm" (1937). Hilferding in some sense anticipated Coase's theory of the entrepreneur as the manager of resources within the firm, although he did not anticipate Coase's transaction-cost analysis. Both theories focus on "the *execution* of economic activity rather than its conception and planning" (Hébert and Link, 1988; emphasis in original). Neither theory involves the ownership of resources, nor do they imply any problems of uncertainty. In this sense, both are somewhat mechanistic. It is also noteworthy how well Coase's theory dovetails with Hilferding's in the sense that both imply the idea of socialism within the boundaries of the firm.

In Hilferding's view, the capitalists cannot advance anything other than their own short-term interests without the entrepreneurs, who are thus closely tied with any long-term growth prospects for capitalist enterprises. By innovating from within, the entrepreneurs manage capitalist enterprises as they pass through the final stages of capitalist development. At the core of *Finance Capital* is a discussion of the evolutionary nature of capitalism, and Hilferding argues that the "latest phase" of capitalism— the main topic of the treatise— is the beginning of the end for capitalist society. The relation of this notion to the theory of money and banking is discussed in Chapter 4.

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d = dividend on shares
Y = yield of the enterprise

B. Mises: The Entrepreneur as Owner

Mises' early views on entrepreneurship require special explication. In his first studies, Mises is concerned with the entrepreneurial function only tangentially, and his interest in entrepreneurs revolves mainly around their use of money to calculate and rationally to allocate resources in society (Mises, [1924] 1953, pp. 48-49, 205, 223). The result is that any discussion of entrepreneurs is embedded in discussions of various monetary problems. Within this general research agenda, however, there exist the seeds of a definite theory of entrepreneurship which Mises was not to develop fully until his magnum opus *Human Action* (1949). First we will examine these early formulations, and then we will discuss how the entrepreneur fits in Mises' theory of economic growth.

As with much of his economic theory, Mises borrows heavily from Böhm-Bawerk in his presentation of the entrepreneurial function. Specifically, his notion of entrepreneurship ties the entrepreneur almost inextricably to the capitalist. The two major characteristics of this entrepreneur are first, that he is an owner of resources, and second, that he devotes these resources to time-consuming processes of production in an attempt to anticipate the future wants of consumers.[23] Böhm-Bawerk had alluded to the ownership and production elements of the entrepreneur, even to the point where, as Murray Rothbard claims, he failed to distinguish between the capitalist and entrepreneur

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[23] This approach is not entirely original with Böhm-Bawerk. Versions of this theory, emphasizing ownership and uncertainty, can be traced back as far as Richard Cantillon, an economist who in several respects anticipated the insights of the "Austrian" School and of Mises in particular. On Cantillon and the Austrian School, cf. Hébert (1985). On Böhm-Bawerk's theory of entrepreneurship, cf. Salerno (2008). Later disciples of Mises, most notably Israel Kirzner, have endorsed a different interpretation of Mises' entrepreneurial theory. This view espouses a resource-less (i.e. non-owning, non-uncertainty-bearing) theory of the entrepreneur, and emphasizes the entrepreneur's awareness to profit opportunities and ability to perceive and act upon optimal changes in ends-means frameworks as the fundamental economic functions of the entrepreneur. The standard presentation of this view is still Kirzner (1973). Whatever the merits of this interpretation, it is clear that at the beginning of his career Mises did not concern himself with these aspects of entrepreneurial theory.

(Rothbard, 1985).[24] However, these two characteristics are often only implicit in Mises' discussions, and therefore we must take special care to excavate and bring them to light, where we may determine their role in Mises' theory.

We begin with the idea of the owner-entrepreneur. Mises' entrepreneur demands capital for productive uses, not merely as a manager, but as an owner. The demand for capital the entrepreneurs express is the demand for *ownership* of capital. This becomes clear in a passage addressing the entrepreneur's reaction to credit expansion:

> An entrepreneur *who wishes to acquire command over capital goods and labour in order to begin a process of production* must first of all have money with which to purchase them. For a long time now it has been usual to transfer capital goods by way of direct exchange. The capitalists advance money to the producers, who then use it for buying means of production and for paying wages. Those entrepreneurs who do not have enough of their own capital at their disposal do not demand production goods, but money. The demand for capital takes on the form of a demand for money. But this must not deceive us as to the nature of the phenomenon. What is usually called plentifulness of money and scarcity of money is really plentifulness of capital and scarcity of capital... The entrepreneur who would like to extend his business beyond the bounds set by the state of the

[24] Rothbard, in claiming that Böhm-Bawerk did not make this distinction, has perhaps obscured Böhm-Bawerk's original meaning. Rothbard states that in Böhm-Bawerk's theory "the entrepreneur is clearly the capitalist and there is no possibility of such separation" (Rothbard, 1985, p. 284). Although implicitly the two functions are similar if not identical in Böhm-Bawerk's work, separation is not necessarily impossible. Böhm-Bawerk did not deny the distinction between entrepreneur and capitalist, he merely opted to avoid making the distinction so as to emphasize problems peculiar to the theory of interest. In his own words: "The difficulties which surround our subject, the problem of interest, are so great that I can have no desire to increase them by introducing the complication of a second difficult problem. I shall therefore refrain from investigating or deciding the problem of the entrepreneur's profit" (Böhm-Bawerk, 1959, p. 7).

market is prone to complain about the scarcity of money (pp. 340-341; emphasis added).[25]

Here we have the theory in a nutshell. The preceding passage explicitly states that the entrepreneur is actively engaged in acquiring capital goods and devoting them to time-consuming production processes.[26] This indicates that in this early work Mises envisioned the entrepreneur as demanding money in order to purchase capital goods *which he then directs toward production*, or in other words, Mises is utilizing a property-owning, capital-controlling conception of the entrepreneur. The entrepreneur is the fundamental source of economic growth, because it is the entrepreneur who guides the production process in the present in an attempt to increase consumer satisfaction in the future; it is the entrepreneur who directs production through time.[27]

Yet now a question arises in regard to economic growth: where do the entrepreneurs obtain the resources they devote to the production process? For Mises, the answer rests entirely with savings. For economic growth to occur in the Misesian system,

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[25] Mises' terminology is somewhat confusing here, but he appears to intend "producers" to be synonymous with "entrepreneurs," which clarifies the passage and points toward our conclusion regarding Mises' theory. This is not clearly stated here, but is explicitly clarified in Mises' later exposition of entrepreneurial theory (Mises, 1998, p. 254). For similar remarks, cf. pp. 314-315.

[26] There are other, more obscure references that convey the same general meaning as the above passage. For example, in a section titled "Economic Calculation and Accountancy" Mises discusses how capital consumption results from monetary depreciation. In this context, Mises states that the entrepreneur consumes capital as a result of the lowering of the value of money (Mises, [1924] 1953, p. 205). In similar vein, Mises notes, "The entrepreneur who is reckoning in terms of a currency with a stable value is unable to compete with the entrepreneur who is prepared to make a quasi-gift of part of his capital to his customers" (Mises, [1924] 1953, p. 205). Yet these observations can only be understood if the entrepreneur possesses some share of ownership in the stock of available capital. In addition, by arguing that it is the entrepreneur who consumes capital and makes "quasi-gifts," Mises appears to suggest that it is the entrepreneur who bears the uncertainty of his own economic decisions (or at least the uncertainty present in the case of monetary depreciation). Bearing uncertainty necessarily implies ownership of some resource that is risked in the marketplace, simply because one cannot lose what one does not possess.

[27] A further clarification is necessary: that is, to distinguish between Mises' views on "entrepreneurs" versus those on "managers." Thus, as Hülsmann puts it "The entrepreneur who operates with 10 percent equity and 90 percent debt is not really an entrepreneur anymore. His creditors (usually bankers) are the true entrepreneurs who make all essential decisions. He is just a more or less well-paid executive— a manager" (2008, pp. 180-181, emphasis added). Cf. Mises, 1998, p. 301.

individuals must adjust their consumption-saving preferences to allow for greater investment (i.e. they must experience lower "time-preference"). New investment expands the higher stages of production, allowing investment to include more "roundabout" methods of production, investment which is guided by the entrepreneurs. The entrepreneur's income is a return to successful anticipation of consumer wants and the consequent alignment of the structure of production to those wants. If instead the entrepreneur's judgments about the future prove incorrect, he incurs losses. For Mises, sustainable growth can only come from increased savings. This is the only way to align consumption-saving preferences with the supply of money, an alignment upon which economic stability depends. In this view, increases in the supply of money not corresponding to increases in the demand for money inevitably lead to economic crisis, as we shall see in Chapter 4.

It is of the utmost importance to understand that Mises utilizes a framework within which consumption, saving, profit, loss, and interest— in fact, practically all economic phenomena deemed worthy of attention— are determined by the decisions of individuals whose preferences change regularly. In other words, Mises does not employ an "equilibrium" framework in the common sense of the term. Because there is constant change in the relevant human data, there is always disequilibrium in the economy, and economic affairs never enter a state of general equilibrium ("the final state of rest" as Mises would later call it), although there is a tendency toward such an equilibrium. This is a fundamental difference between the economic analyses of Mises and Schumpeter. Mises is employing a "causal-realist" analysis of the economy, while Schumpeter relies on the pedagogical device of stationary equilibrium to explain the process of economic

change. While Mises believed that the economy was never in general equilibrium, as we shall see, for Schumpeter an equilibrium state is the starting and ending point of the economic process.

C. Schumpeter: The Entrepreneur as Innovator

Of the three economists under discussion, Schumpeter has by far the most well-known theory of entrepreneurship.[28] Schumpeter concerns himself with the entrepreneur as an innovator, as a force of economic change who brings "creative destruction" to the economy by revolutionizing the production process, by replacing older and less efficient processes of production with newer and more efficient ones. While sharing some affinities to the theories of both Hilferding and Mises, at the theoretical level Schumpeter takes a different approach to economic change than either Hilferding or Mises, and his theory is far more complex.

Schumpeter begins his explanation of economic growth with what he refers to as the "circular-flow" (*kreislauf*) model of the economy. He characterizes this state of affairs thus:

> We can imagine that, year in and year out, every recurring employment of permanent sources of productive power endeavors to reach the same consumer. The result of the process is in any case the same as if this happened. Hence it follows that somewhere in the economic system a demand is, so to say, ready awaiting every supply, and nowhere in the system are there commodities without complements, that is other commodities in the possession of people who will exchange them under empirically determined conditions for the former goods. It

[28]For the purposes of this discussion, the most important discussions are found in Hébert and Link (1988), (2006), and Rothbard (1987).

> follows, again from the fact that all goods find a market, that *the circular flow of economic life is closed*… Thus the economic system will not change capriciously on its own initiative but will be at all times connected with preceding state of affairs (8-9)… all contributions and shares must cancel out. (1934, p. 10; emphasis mine).[29]

This is the essence of Schumpeter's "static" equilibrium model. As with similar models, tastes and preferences are fixed, or at least if they do change, it does not matter for the analysis of economic development. In this static state, production proceeds in an endless round without any meaningful variation. Of vital importance for Schumpeter is the fact that all resources are bound up in production of some sort.

It should also be emphasized that while this theory is an analytical and pedagogical device, and not intended to describe any particular empirical phenomena, it nevertheless is supposed to represent, at least for certain time periods, the reality of economic conditions. Even though real world economic conditions are difficult to describe simply in terms of equilibrium and disequilibrium, Schumpeter must intend the fundamental conditions of equilibrium as described above to reflect events as they actually occur, even if only for short periods of time. That is, at some point, the data of the real world must conform roughly to the conditions of the circular-flow model. This "reality" of stationary equilibrium may be inferred from Schumpeter's discussion of minor versus revolutionary changes in the economy (Schumpeter, 1934, p. 82n1), and

[29] Schumpeter attributes the idea of the "connectivity" of production periods to Wieser.

also from his *Epochen der Dogmen— Und Methodengeschichte* (1912), where he discusses the origins and development of the circular flow concept.[30]

The resemblance between this model and many standard Walrasian equilibrium models is readily apparent. However, there are some subtle differences worth noting. The most important is that in the circular-flow model the rate of interest, like the rate of profit, is zero. A complete explanation of Schumpeter's theory of interest is beyond the scope of this thesis, so a brief summary must suffice. Gottfried Haberler explains the theory thus:

> [Schumpeter's zero-interest theory] may be formulated as follows: (a) there is no systematic time preference. (b) In the absence of the dynamical mechanism Schumpeter describes (i.e. the innovator-entrepreneur financed by inflationary bank credit), the marginal productivity of capital is zero, or, in Böhm-Bawerkian language which Schumpeter used, there is no room for more roundabout ways of production (Haberler, 1951).[31]

Based on these two assumptions, Schumpeter concludes that there is no method by which interest can emerge in the stationary economy, because ultimately, interest is a purely monetary phenomenon that exists only in a dynamic economy, and is therefore absent in this static schema. The absence of interest explains why in this model there is no form of income which can serve to finance investment and change in the economy, as there is, for instance, in the theory of Mises.

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[30]Cf. the English translation titled Economic Doctrine and Method, esp. chap 2, and also the implications of pp. 61-61. Robbins (1930) implies that concern with the "unrealistic" nature of stationary equilibrium can be traced back at least as far as Marshall. Robbins, in his brief sketch of the history of stationary equilibrium analysis, also indicates that historically, stationary equilibrium models have always been intended to describe some real-world phenomena. He indicates quite plainly that Schumpeter's theory is part of this realist tradition in economic thought. Rothbard (1985), for instance, notes that for his theory to feasible at all, Schumpeter "had to believe that general equilibrium is a living reality, an existing state of affairs, at least part of the time" (p. 285; emphasis added).

[31] For detailed elaborations of Schumpeter's theory of interest, see the above citation, and also Robbins (1930).

However, this circular-flow model leaves Schumpeter with a curious problem: if all resources are utilized in every round of production, then how does economic change occur? After all, in this view there is neither profit nor interest that could function as a reward to inspire economic change, and even if there were, there are no resources that could be provided to entrepreneurs who might wish to innovate. Schumpeter solves this problem by introducing an exogenous force of change: credit means of payment. Banks, claims Schumpeter, must create credit specifically for the entrepreneurs to use in their innovative endeavors. With a new influx of credit, the entrepreneurs can bid away the factors of production from their current uses and put them to new ones (Schumpeter, 1934, pp. 70-73).

The only interest payments in this schema are made to the lenders, the banks. Thus, monetary factors are of the utmost importance for Schumpeter's theory of the entrepreneur; without new credit, the entrepreneur cannot innovate. The credit obtained by the entrepreneurs though, is necessarily created "from thin air," and is not a part of any commodity standard. Such credit cannot be commodity-backed, in fact, as there are no resources that could be held in reserve to redeem the currency; all resources are already devoted to some part of the production process. Although we will discuss this point in greater detail in Chapter 4, it is important to note that this credit expansion on the part of the banks is ultimately non-inflationary in the Schumpeterian system.

Entrepreneurial activity introduces dynamic change, disequilibrating the economy and rendering obsolete old production methods. The Schumpeterian entrepreneur introduces change to the economy by "carrying out new combinations." Schumpeter lists five possible ways in which this process can occur:

> (1) The introduction of a new good… or of a new quality of a good. (2) The introduction of a new method of production… (3) The opening of a new market… (4) The conquest of a new source of supply of raw materials or half-manufactured goods… (5) The carrying out of the new organization of any industry (p. 66).

Notice that none of these five methods of innovation require property ownership. Schumpeter was adamant in his assertion that entrepreneurs are neither owners nor uncertainty-bearers. That is to say, Schumpeter's entrepreneurs cannot incur losses, because they risk nothing of their own in the productive process. Entrepreneurs do however earn a profit as a return for their innovative efforts.

Soon after innovations are introduced to the market however, competitive producers begin to imitate the methods of the entrepreneurs, the innovations themselves begin to be incorporated into productions plans, and gradually the economy moves toward a static circular-flow state once again. At some point after equilibrium has been reached, entrepreneurs again introduce new combinations, and the process begins again.

The great contrast between Mises and Schumpeter on the subject of growth is that whereas for Mises credit created *ex nihilo* is deleterious, in fact disastrous for the economy, for Schumpeter such credit is absolutely required (1934, p. 73). Only through an influx of exogenous bank credit can entrepreneurs finance innovative operations, otherwise there are no resources available, because all resources are assigned to specific, unchanging functions in Schumpeter's circular flow model. The conflicting views of Mises and Schumpeter on issues of entrepreneurship and the role of money and credit

lead to their differing views on the causes of the business cycle, as we shall see in Chapter 4.

It is in the theory of the entrepreneurial where we find the second major sphere of influence of Hilferding on Schumpeter. As we have seen, Hilferding also advances the concept of the entrepreneur who neither owns property nor bears uncertainty in the market. Also, both entrepreneurs are innovators, although Hilferding's entrepreneur changes the firm from within, while Schumpeter's entrepreneur incites change from without the existing market structure, in the sense that innovation threatens the old established firms while providing an edge for those that accept the new production methods. Michaelides and Milios (2005) have shown the influence of Hilferding on Schumpeter, although without emphasis on the theory of entrepreneurship. It is not unreasonable to suggest, however, that Schumpeter may have been attracted to these portions of Hilferding's own theory.

Another source of influence appears to be Wieser, who takes pains to establish the *character* of the entrepreneur and the leadership traits he possesses, an essentially sociological idea Schumpeter frequently mentions in his own works.[32] Wieser describes the entrepreneurs as "Great personalities…bold technical innovators, organizers with a keen knowledge of human nature, far-sighted bankers, reckless speculators, the world-conquering directors of the trusts" (Wieser, 1927, p. 327). It is easy to see how this "romantic" notion of the entrepreneur influenced Schumpeter, who also regarded the entrepreneur as a man set apart from his fellows, guided by almost supernatural business instincts. Yet the influence of Hilferding shines through also, especially in the more technical aspects of the entrepreneurial function.

[32] Cf. esp. Schumpeter (1942).

We could almost say that Schumpeter forms his own theory by taking Hilferding's views and adding Wieser's 'romantic' notion of the entrepreneur— the grand industrial leader— and then grafting this hybrid theory onto his Walrasian circular flow model. The combination of these strange economic bedfellows— Hilferding, Walras, and Wieser— generates the famous vision of the entrepreneur found in *The Theory of Economic Development*.[33]

Much of the origins of the differing viewpoints mentioned above, especially in the monetary arena, remain to be seen. Specifically, the debate between these three economists is in many ways a continuation of an older debate on money and banking. Now that we have laid extensive groundwork, we may finally turn to the subject of this debate and its impact on the monetary economics of the early twentieth century.

[33] This interpretation is consistent with Hébert and Link (1988), who mention the influence of Walras and Wieser, but unfortunately not that of Hilferding, who is unknown in the entrepreneurial literature as well as much of the English-speaking economic tradition generally. Although Michaelides and Milios (2005) do not directly address the influence of Hilferding on Schumpeter's entrepreneurial theory, they do provide an insightful discussion of certain differences between the two theories.

CHAPTER 3

THE DEBATE BETWEEN THE CURRENCY AND BANKING SCHOOLS

We will begin with a discussion of the debate between the Banking School and the Currency School in 19th century Britain. We will discuss a number of arguments from both schools, and distinguish several fundamental economic principles and points of contention between the two schools; points which have a particular importance for the works of certain Viennese economists. Only then may we discuss how the ideas of the Banking and Currency School theorists influenced our three treatises. Periodically, we shall have recourse to our discussion of entrepreneurship in order to explain how this portion of economic theory, when combined with certain theories of money and banking, can lead to such different conclusions as those reached by Hilferding, Mises, and Schumpeter.

Although debates over monetary policy had existed in England since the 17th century, the period of roughly the mid-19th century (roughly 1821-1844 and then 1844-1865) saw a deliberate and systematic focus on particular issues in banking theory, characterized by a broad division of opinion into two schools of thought, which became known as the "Banking School" and the "Currency School."[34]

[34] 1821 is the year England returned to the gold standard after more than twenty years of inconvertible paper currency. The period following the return saw the publication of innumerable works on the nature of money and on prescriptions for banking policy. 1844 marks the passage of the Bank Charter Act, popularly known as "Peel's Act," after Sir Robert Peel. For a summary of the history of the debate cf. Daugherty (1942) and (1943) and Rothbard (1995, esp. chaps. 5-7). For examinations in regard to particular problems, cf. Viner (1937, esp. chap. V) and Wu ([1939] 2007, esp. pp. 129-141) in relation to international trade and price theories, respectively. For particular emphasis on the "real bills doctrine," cf. Mints (1945, esp. chaps. VI and VII).

The central disputes between the two schools can be divided into their theoretical and political segments. On the one hand are concerns about the theoretical problems of money and money-substitutes, that is, how the economy functions in the presence of a "mixed currency," that is, one where both gold and convertible paper money are used as media of exchange.

On the other hand there are various problems of economic policy relating to banking institutions and their governance, in particular, the question as of how to limit the inflationary expansion of currency issues and thus ensure relative economic stability. Although many points both of theory and policy were debated in this period, we shall discuss mainly the more influential theoretical ideas which relate directly to Hilferding, Mises, and Schumpeter.[35]

A. The Currency School

Economic crises in England in 1825, 1836, and 1839 spurred increasing interest in the workings of the English monetary system and ways to improve it. It was in this intellectual climate— one increasingly hostile toward banks, and desirous of limiting their power— that the ideas of the Currency School matured. By the early 19th century, a broad consensus had been reached in the British economic community that a mixed currency based on convertibility into gold was the most desirable monetary system. Differences of opinion arose however, as to how to ensure the proper maintenance of the money supply and the avoidance of economic crises. As opposed to the Banking School, which argued against the restriction of banking operations, the Currency School contended that certain limitations should be placed upon the Bank of England (and any

[35] In particular, we shall mostly bypass the themes of international trade and the regulation of the exchanges, which comprise a significant share of the debate.

other banks of issue) to prevent an inflationary expansion of the money supply. In what follows it should be remembered that both schools focused exclusively on short-run issues, and it is on these points that disagreement is found, whereas in the long run, both schools tended to agree with Ricardo (Viner, 1937, p. 221).[36]

We shall deal with each of the following ideas at greater length in relation to the 20th-century economists, but for now a brief survey of Currency School arguments will suffice. The position of the writers of the Currency School was built around what became known as the "Currency Principle" which may be summarized as follows: "A mixed currency would operate properly only if it operated precisely as would a metallic currency, i.e., only if any efflux or influx of gold resulted in a corresponding (absolute, not proportional) decrease or increase in the quantity of the currency" (Viner, 1937, p.221). Put another way, "note issues would be correctly regulated if they were made to fluctuate in volume exactly as a purely metallic currency would have done" (Daugherty, 1942).[37]

Currency School theorists held that while issues of convertible paper currency could not be excessive for an indefinite period, they could be excessive to a significant degree "for sufficiently long periods to endanger the maintenance of convertibility and to generate financial crises" (Viner, 1937, p. 223). The problem that faced the writers of the Currency School was how to regulate the issue of currency so as to ensure that a mixed currency would conform to the principles of a purely metallic system. The Currency

[36] That is, in the long run the quantity and value of money are determined by the cost of gold production.
[37] Wu ([1939] 2007) characterizes the principle thus: "There is always a danger of an over-issue of bank notes, which therefore should be strictly regulated—so regulated that the notes might become mere tokens for metallic money" (p. 130). This exposition throws light on one particular issue that has been of recent interest to monetary economists: the issue of 100-percent reserve banking. It is also important for our later discussions.

School writers maintained that bank money convertibility was a necessary but not a sufficient condition for ensuring the proper maintenance of the money supply.

In examining this problem, the Currency School focused almost exclusively on the issue of bank notes as opposed to deposits.[38] If the volume of notes exceeds the amount that would have circulated in a purely metallic system, this constitutes an "overissue." The problem with such overissue, according to the Currency School, was threefold. First, it was inflationary, causing a rise in the price level. Second, it resulted in a drain on gold reserves to foreign nations. Third, it serves as a primary cause of business cycles. The main concern of the Currency School then was to find methods of regulating banking practices that could prevent the overissue of notes and avoid, or at least greatly reduce, the effects of financial panics. Convertibility of the currency was the first important check on overissue, but the Currency School felt that additional legal stipulations were required to limit inflationary expansions of the money supply.

Both the Currency School and the Banking School favored convertibility of bank notes into specie. Where they differed was on the role that convertibility and other limiting influences played on note issue. The Banking School maintained that convertibility by itself would be sufficient to ensure that banks would not unduly increase the volume of circulation, while the Currency School did not. The problem facing the Currency School was how to regulate bank issues such that convertibility would always be ensured— convertibility functions as a limit to excess issues and represents "an application of the principles of a purely metallic currency" (Daugherty, 1942).

The policy solution recommended by the Currency School was to divide the Bank of England into two separate departments, one of which would be responsible for the

[38] This will become clear below, especially in regard to Mises' theories.

issue and redemption of bank notes, while the other would oversee demand deposits. According to Peel's Act, bank note issues would be backed by securities held by the bank up to the amount of £14,000,000, and beyond this, there would be a strict 100-percent reserve requirement for all note issue. Deposits, on the other hand, were left completely unregulated, because, in a crucial error of Currency School doctrine, notes and deposits were thought to have entirely different economic functions.[39]

B. The Banking School

The theories of the Banking School, although possessing intellectual roots in earlier controversies, were developed primarily in response to the Currency School and its support of Peel's Act. However, Banking School doctrine was never systematized to the degree that Currency School doctrine was. As Hayek puts it "The 'Currency School'… stepped forward with a well-defined programme…[Whereas] the opposing doctrine of the 'Banking School' developed only gradually and never attained a coherent set of ideas" (1991, p. 230). Despite this lack of unanimity of opinion, the influence of the Banking School can be felt throughout the history of economic thought. Several writers stand out as the authoritative voices of the theories of the Banking School, in particular Thomas Tooke and John Fullarton,[40] and to a lesser extent, and somewhat later, John Stuart Mill.

As with the Currency School, it is possible to express the central doctrine of the Banking School in terms of a "Banking Principle," defined thus: "The amount of paper

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[39] For more on the Currency School's distinction between notes and deposits, see below, Chapter 3, Part B.

[40] As we shall argue, Fullarton exercised an important influence, especially on Hilferding (positively) and Mises (negatively), but he also influenced Keynes, who describes his work On the Regulation of Currencies as "most interesting" (1936, p. 364). Although it does not appear that any extensive attempt has been made to trace the influence of Fullarton on Keynes, the reader will notice many similarities, especially the emphasis on money hoards.

notes in circulation [is] adequately controlled by the ordinary processes of competitive banking, and if the requirement of convertibility was maintained, could not exceed the needs of business for any appreciable length of time" (Viner, 1937, p. 223). Thus, overissue of the currency is absolutely impossible given true convertibility. This "elasticity" is the fundamental characteristic of bank note issue, and no regulation of the currency is necessary to prevent overissue.

The key to understanding the position of the Banking School, and the doctrine of the impossibility of overissue, is to be found in what is probably the most fundamental principle of the Banking School, the "law of the reflux," an idea developed principally by Fullarton and Tooke, and later repeated by Mill.[41]

The law of reflux states that so long as the currency is convertible banks cannot overissue their notes, because any issue exceeding public demand would immediately flow back to the bank:

> If the loans or deposits are advanced on proper securities, for short periods, the reflux of the notes, if any have been issued, will be equal to the efflux, leaving the circulation unaltered. If, indeed, the transactions of the district, or the trade of the country generally, require more instruments of exchange, a larger amount of notes would remain out; but this increase would *be the effect of increased transactions and prices, and not the cause of them* (Tooke, [1848] 1962, IV, p. 194; emphasis in original)[42]

Although Banking School theorists supported convertibility, it appears to be the prevailing opinion that convertibility is relatively unimportant compared to reflux in

[41] Cf. Fullarton (1845), pp. 82-98; Tooke ([1848] 1962), IV, pp. 185-197, and ([1844] 1959), pp. 60-66.
[42] Cf. Fullarton (1845), esp. chap. 5, for the canonical exposition of the law of reflux.

terms of its ability to prevent an increase in the circulating medium.[43] Emphasis is therefore on the "needs of business" in explaining the determination of the circulation. While the writers of the Currency School based their analysis on early versions of the quantity theory of money, members of the Banking School tend to deny altogether the influence of the money supply on the general price level. Prices do not respond to changes in the quantity of money, but rather the amount of the circulation responds to the supply and demand for goods, which explains Tooke's comment above regarding the direction of the causal effects of money on prices.

As a direct result of this theory of prices on the amount of issues, Banking theorists look to real factors for the explanation of financial crises, as opposed to the monetary theory of crises advanced by the Currency School. In terms of policy, the Banking School strongly opposed Peel's Act. In their opinion, the supply of the circulating medium could never be overissued, and thus any additional regulation of issue would at best be redundant, and at worst exacerbate economic crises. The Banking School also denied the Currency School's distinction between notes and deposits, arguing that although they performed the same economic function as media of exchange, neither required regulation.

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[43] Cf. Fullarton (1845), p. 68, and Mints (1945), p. 88.

CHAPTER 4

THE INFLUENCE OF THE CURRENCY-BANKING DEBATE

A. Rudolf Hilferding and the Banking School

Rooting himself firmly in the Marxist tradition, Hilferding naturally takes Marx's discussions of money as the starting point for his own theory, and it is not a coincidence that already in Marx's work, we observe the influence of the Banking School. Marx even described Fullarton as "one of the best writers on money," and at the time of Tooke's death, hailed him as "the last English economist of any value."[44]

Although critical of certain aspects of Banking School theory, Marx was sympathetic in regard to its monetary doctrines. He was also, unfavorable toward the Currency School, and instead of utilizing the quantity theory, advocated a distinctly Banking-School approach wherein the prices of commodities determine the quantity of the circulating medium.[45] These ideas, and the corresponding Banking School doctrines, are echoed in Hilferding's writings, to which we now turn.

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[44] Quoted in The New Palgrave: A Dictionary of Economics, 1987 ed., s.v. "John Fullarton," and ibid, s.v. "Thomas Tooke," respectively.

[45] For an example of Marx's opinions on the Currency School, cf. Marx (1972), p. 684, where he refers to the Currency School's "ignorance and... complete misunderstanding" of the direction of the causal relation between the quantity of money and prices.

For some of Marx's comments on the members of the Banking School, cf. Marx (1972), p. 124n. 2 and (1911), pp. 259-263. For a detailed analysis of Marx's monetary theory and its development, cf. Arnon (1984). For Marx's views on the quantity of the circulating medium, cf. (1973), where he speaks of "the fundamental law that the mass of the circulating medium, at a definite velocity of circulation, is determined by the prices of the commodities and by the mass of commodities circulating at definite prices" (pp.789-790). This position is summed up by the dicta, "Trade governs money, not money trade," and, "The servant of trade [money] must follow the variations (in the prices) of the other commodities" (p. 870). Cf. also (1973) pp. 186-187, and the discussions of this aspect of Marx's monetary theory in Arnon (1984) and Vorhies (1982), both of which mention the Banking School connection.

1. The Endogeneity of Money

Money and banking have a special significance in Hilferding's work, and it is not far from the mark to say that monetary issues are the indispensable core of his treatment of 'the latest phase of capitalist development.' *Finance Capital* attempts to build a grand vision of the final stages of capitalism, development which largely depends upon the structure of the industries of banking and finance. Like Marx, Hilferding introduces money and credit into his analysis from the outset, building a system that thoroughly integrates an analysis of indirect exchange. To that end, Hilferding relied greatly on the traditional Banking School understanding of money and credit, even to the extent that Schumpeter— somewhat contemptuously— remarked that Hilferding "drew on it largely and uncritically" (1963, p. 725). In any case, Hilferding's explicit endorsement of Banking School writers makes demonstrating their influence relatively easy.

In Hilferding's analysis, money arises out of the necessity, in capitalist society, of having a general standard through which to express the value of all commodities, a standard of value which can express the share each member of society has in the production of goods, i.e., each good's "socially necessary labor time" of production. "The anarchy of the commodity producing society generates the need for money" ([1910] 1981, p. 39).

The relevant point for our study, however, is the question as to the determinants of the quantity of money in circulation under a mixed monetary regime. To answer this question, Hilferding begins by denouncing the quantity theory in no uncertain terms, stating that "Ever since Tooke's demonstration, the quantity theory of money has been

rightly regarded as untenable" (p. 47). As the basis of his monetary theory, Hilferding preferred the Banking School's price-based theory of the circulation.

While Hilferding argued, following the Banking School, that the quantity theory did in fact apply to cases of inconvertible paper money, which could influence prices generally, he also held that the condition of convertibility nullified the quantity theory. Hilferding concluded from this that, "The crucial test, therefore, is convertibility" (p. 63). To support this notion he cites Fullarton at length, presenting two of Fullarton's examples to contrast the possible effect on prices under both inconvertible and convertible monetary regimes (pp. 51-53).[46]

Hilferding concluded that, "The quantity of circulating media is determined primarily by the aggregate price of commodities. Given the quantity of commodities, changes in the quantity of money in circulation follow the fluctuations of commodity prices" (p. 37). It is clear then that the quantity of the circulation is determined endogenously, with the prices of commodities representing the principle independent variable, and therefore the quantity theory is "rightly regarded as refuted" (p. 50). It is also quite clear from his extensive citations that Hilferding's analysis relies on Tooke and Fullarton's model of money and prices.

2. Note Issue and 'The Law of Reflux'

The Banking School's influence, however, is felt mostly heavily in Chapter 5 of *Finance Capital*, "The Banks and Industrial Credit," where Hilferding outlines for the

[46] Hilferding appears to confuse Fullarton's meaning in these citations. Whereas Hilferding means to show that inconvertible paper money can be issued so as to effect prices, while a convertible currency cannot have such an effect, Fullarton is not making a distinction between inconvertible and convertible currency in his examples, but between two variations of inconvertible currency. Only after these sections are concluded does he introduce the subject of convertible bank notes and the impossibility of their overissue. Cf. Fullarton (1845), chap. 3.

first time the role of banks of issue in granting credit to industrial enterprises, and the influence that such banks exert on the economic process as a whole. It is here that Hilferding discusses limitations on bank issues, and where he adopts the law of reflux as an explanation of the fundamental limit on overissue. Marx endorsed the Banking Principle almost verbatim,[47] and Hilferding cites Marx' position approvingly ([1910] 1981, p. 38n5), while providing his own presentation of the Principle:

> The volume of paper money must always be kept down to the minimum amount of money required for circulation. This minimum can, however, be replaced by paper, and since this amount of money is always necessary for circulation there is no need for gold to appear in its place (p.38).

Given convertibility, there can be no deviation of the amount of the circulation from the "required amount," that is, from the needs of business. To support this claim, Hilferding turns once more to the Banking School, this time to Fullarton and the notion of the law of reflux.

Hilferding first notes the reflux principle in regard to bills of exchange: "The circulation of bills is limited only by the number of business transactions actually concluded… commercial bills can in principle only be issued when a business transaction has been concluded, and for this reason bills cannot be overissued" (p. 84).

More important for our study however, he applies the reflux analysis to bank notes as well:

> The convertible bank note cannot be issued in excess quantities… A bank note which is not required in circulation is returned to the bank. Since it can be

[47] "The issue of paper money must not exceed in amount the gold (or silver, as the case may be) which would actually circulate, if not replaced by symbols" Quoted in Hilferding ([1910] 1981), p. 378n5.

used in lieu of the bill of exchange, the issue of notes is subject to the same laws as is the circulation of bills, and expands along with the latter so long as credit remains undisturbed (p.86).

To emphasize his position, Hilferding quotes the following passage from Fullarton's *On the Regulation of Currencies*:

> I have no hesitation in professing my own adhesion to the decried doctrine of the old Bank Directors of 1810, 'that so long as a bank issues its notes in the discount of good bills, at not more than sixty days' date, it can never go far wrong.' In that maxim, simple as it is, I very strongly believe, there is a nearer approach to the truth, and a more profound view of the principles which govern circulation, than in any rule on the subject, which since that time has been promulgated ([1910] 1981, p. 86 n8).

Given his use of the law of reflux to explain the quantity of bills of exchange and bank notes, and given the positive citation of Fullarton, who refers to the "decried" real-bills doctrine, it is unclear whether Hilferding was aware of the difference between the two principles.[48] Nothing in Fullarton's work suggests that he was, and this error appears be adopted by Hilferding.[49] The fact remains though that Hilferding sided quite explicitly with the Banking School on these issues, differing only on some points of Marxist terminology and presentation.

3. Hilferding and the Currency School

Hilferding briefly mentions the topic of legal restrictions on note issue by asserting that "The artificial regulation of the issue of bank notes fails as soon as

[48] For the distinction between the reflux and real-bills doctrines, cf. Glasner (1992).

[49] Perhaps this is what Schumpeter was referring to in his above-quoted remark.

circumstances require an increased issue" ([1910] 1981, p.85). That is, since the quantity of bank notes in circulation depends upon the demand of business, any restriction seeking to limit the volume of notes must run afoul of shortages in the note circulation whenever the public's demand for notes exceeds the maximum legal issue: "The essence of mistaken banking legislation is that it severely restricts the expansion of circulation credit and prevents it from reaching those limits which would be reasonable from the standpoint of economic laws" (p. 277). This was also the position of the Banking theorists, and Hilferding's comment is clearly aimed at Currency-esque regulations of banking practices. In fact, Hilferding goes on to lament what he considered the lack of progress in monetary theory in the 19th century:

> The insuperable obstacle to a knowledge of the laws of money and note circulation has been the hostility toward the labour theory of value. This accounts for the triumph of the Currency School in English banking legislation, notwithstanding its reduction to historical and theoretical absurdity in the works of Tooke [and] Fullarton… Capitalism may learn more adequate principles, slowly and laboriously, from the bitter and costly experiences of diverse countries and periods, but it cannot find the power within itself to generalize them, as the maintenance of American, English, and to a lesser extent, German legislation and policies with regard to banks of issue demonstrates. ([1910] 1981, p. 87n7)

This remark, embedded in Hilferding's discussion of money and credit, shows quite clearly— although Hilferding may not have realized it— that he was demonstrating an important relationship between the Banking School and early Marxist monetary theory. Specifically, the labor theory of value leads naturally— perhaps even

necessarily— to a theory of the quantity of money based on the prices of commodities. At the same time Hilferding singles out the Currency School approach, based on an early quantity theory, for censure. Although he does not speculate on the Currency School's influence, as we shall see below, the quantity theory lends itself easily to the monetary analysis of Mises and the subjective theory of value. Hilferding, at least implicitly, is profiling two distinct threads in the history of economic thought; the Banking School/labor theory tradition, and the Currency School/subjective value tradition.

Hilferding made this clear in his review of Mises' *The Theory of Money and Credit*. The review is comprised of two major criticisms, both of which are relevant. The first concerns Mises' acceptance of the subjective theory of value, and his application of the theory to the quantity of money:

> Among the [marginal utility] school's unsolved problems… the monetary problem naturally occupies a place of prime importance… The bankruptcy of the subjective theory of value, its inability to explain the basic problems of economics, could not be more clearly stated (Hilferding, [1912] 1993, p.179-180).

Second, Hilferding notes Mises' endorsement of the Currency School on overissue and his consequent rejection of the Banking School and the law of reflux:

> He [Mises] lapses completely into the old quantity theory, the inferences of which he not only accepts but its errors also, which he even exaggerates… Incidentally it should be noted that Mises— as a consistent quantity theoretician— champions the view that banks can expand credit arbitrarily without limit. Since he shares the opinion of Böhm that interest is dependent on the size of the national subsistence fund, it is impossible for him to find the

specific causes determining the height of the rate of interest. As a result he arrives at an absurdity; the banks, by reducing the interest rate for transactions, can increase to a considerable extent the demands of their customers and also by expanding the emission of fiduciary media they can satisfy these demands. ([1912] 1993, pp. 181-182)

Once again, Hilferding clearly acknowledges two distinct traditions in economic thought, each springing from a specific theory of value, and each developing the principles of different sides of the Currency-Banking debate. It is clear also that Hilferding, although writing within the Marxist tradition, is an orthodox Banking School economist, at least as far as his views on the determinants of the quantity of money (and consequently, on the quantity theory) and the law of reflux (the possibility of overissue) are concerned.

As we have seen, Hilferding aligns his theory squarely with the Banking School tradition. However, some have argued that Hilferding's argument bears a certain affinity with the Free Banking School identified by White (1984). For example, Horwitz (1994) argues that Hilferding's monetary theory should be viewed in the light of the Free Banking School and its competitive theory of note issue.

However, all of the principles which Hilferding shares with the Free Banking School— rejection of the quantity theory, impossibility of overissue, the law of reflux— are found in the writings of the Banking School as well. In addition, Hilferding expounds his entire theory without reference to any of the members of the Free Banking School while strongly endorsing orthodox Banking School doctrine, further showcasing his

position as a disciple of the latter.[50] There is no reason on these grounds therefore to believe there is any necessary connection between Hilferding and the Free Banking School.

As Horwitz (1994) observes, "Hilferding never explicitly indicates that he envisions several banks competitively issuing convertible notes. His discussion of the return of unwanted bank notes could refer to a competitive system or it might refer to a central bank issuing convertible currency… The evidence in *Finance Capital* appears to indicate that he accepted the erroneous claim of the Banking School [regarding the impossibility of over issue]." Yet these are precisely the issues which separate the Banking from the Free Banking School; it appears from this discussion that any similarity with Free Banking is a purely coincidental result of Hilferding's infatuation with standard Banking School doctrines.

Another major point of distinction may be drawn between Hilferding and the Free Bankers. One of the central tenets of the Free Banking School has been that competitive note issue is not merely a substitute but is actually a system superior in all ways to central banking. The overarching argument of *Finance Capital*, on the other hand, is that the cartelization of the banking system is an evolutionary feature of capitalism (this is voluntary cartelization, absent legal barriers to entry). By combining industrial capital with banking capital, banks create finance capital, which is in turn used to control ever more of the economic system as a whole, through the centralized direction of investment. As the system is centralized, driven by its own internal logic, a *de facto* socialization of

[50] As a minor point, Horwitz (1994) cites Hilferding's calling Fullarton "correct" on his critique of the quantity theory, whereas the complete citation reads "interesting and essentially correct," which is not quite the same thing. This slight misquotation highlights a point made earlier regarding a possible confusion between Hilferding and Fullarton's views. Cf. above, note 49.

the financial and banking sectors—and thus, of the entire market— occurs, setting the stage for the *de jure* adoption of socialism via a mandate of the state. Hilferding summarizes as follows:

> With the development of banking, and the increasingly dense network of relations between the banks and industry, there is a growing tendency to eliminate competition among the banks themselves, and on the other side, to concentrate all capital in the form of money capital, and to make it available to producers only through the banks. If this trend were to continue, it would finally result in a single bank or a group of banks establishing control over the entire money capital. Such a 'central bank' would then exercise control over social production as a whole. (p. 180)

A more different conclusion than that of the Free Bankers can hardly be imagined. As has been shown above, Hilferding allies himself with Marx and the Banking School, and cannot be identified with any other tradition in the sphere of money and banking.

B. Ludwig von Mises and the Currency School

A careful examination of *The Theory of Money and Credit* shows quite clearly that Mises not only considered himself an intellectual successor to the Currency School, but that he considered the Currency-Banking dispute to be *the* event in the development of nineteenth-century money and banking theory ([1924] 1953, pp. 342, 345).[51] Mises even describes his theory of the business cycle as "an elaboration and continuation of the

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[51] Mises also sees the triumph of the Banking School in some twentieth-century trends in economic opinion, such as the policy of providing fiduciary credit as a stimulus for business activity. Cf. Mises [1924] 1953, p. 439.

doctrines of the Currency School" (p. 24). However, while Mises regards himself as a member of the Currency tradition, he is concerned not merely with restating received wisdom— as, for example, Hilferding is— but rather with developing the Currency School's theoretical apparatus. To this end, Mises both elaborates on the Currency School and continues the theoretical debate with the Banking School, to some extent avoiding the pitfalls of their views on monetary policy, and choosing instead to systematically develop a marginalist version of the Currency theory.

1. Advancing the Currency Theory

It is well known that the Currency School erred greatly in ascribing to bank notes and checking deposits different economic functions, and thus Peel's Act regulated only the issue of bank notes while leaving deposit banking alone altogether (p. 280). This error was the target of much Banking School writing, but while Mises does not hesitate to acknowledge the Banking School's prescience in grouping notes and deposits together (p. 389), this difference of opinion with the Currency School does nothing to lessen Mises' appreciation of the Currency School's arguments. In Mises' view, the Currency-Banking debate was diverted from theoretical questions to matters of policy by this very error:

> The criticism of isolated dogmatic and economico-political errors of the Currency Principle that constituted the essence of most nineteenth-century investigation into the theory of banking and credit led to an emphasis being placed on all the factors that could be used to demonstrate the essential similarity of notes and other media of bank credit, and to the oversight of the important differences that exist between the two groups of credit characterized above [that is, between consumer credit and circulating credit], the discovery of which

constitutes one of the permanent contributions of the Classical School and its successors, the Currency Theorists. (pp. 265-266)

According to this interpretation, this most notable error of the Currency School became the focus of the dispute, while the more fundamental issue of the economic function of fiduciary media was largely neglected.[52] For Mises, the central tenets of Currency doctrine do not stand or fall on their failure to distinguish between notes and deposits (p. 369). Thus Mises, in his exposition of the theory of money and banking, is simultaneously developing the theoretical doctrines of the Currency School and engaging in a revisionist analysis of the Currency-Banking dispute.

Mises' theory is based on Menger's theory of individuals' demand for money, combined with the marginal utility approach to value. The result is a systematic refinement of the Currency Theory which avoids the pitfalls of cost-of-production methods which hobbled the Classical approach to monetary theory. Mises thus attempts to put the Currency School's version of the Quantity Theory on firmer ground. While he cannot be considered a Quantity Theorist by any strict Classical or Neoclassical definition, Mises is a Quantity Theorist in a limited sense. That is to say, he argues that a causal link runs from the supply of money to prices, and not the other way around, as the Banking School supposed.

Despite adhering to the Quantity Theory, Mises is quick to distinguish between his version of the theory and that of the Currency School, which Mises describes as "purely mechanical" (p. 344). For Mises, the older theory leads to the conclusion— false, in his view— that changes in the quantity of money affect all prices proportionately and

[52] For a similar interpretation of the debate from one of Mises' students, cf. Rothbard (1995).

at the same time. Mises' rejection of this view is the first step toward the development of his own theory of the business cycle.

The Currency School, however, never developed a complete theory of the trade cycle, choosing instead to focus on the problem of international gold flows (Huerta de Soto, pp. 627-629).[53] Mises viewed his own work as an attempt to fill this gap in the Currency School's exposition, and considers his own arguments a close parallel to those of the older school (p. 365). Mises' attempts to solve the dilemma of the Currency School by integrating his marginal utility theory of money with Wicksell's concept of Natural and Money rates of interest.

2. The Limitations to Credit Expansion

The heart of Mises' argument, however, is concerned with the economics of uncovered bank notes and deposits, which Mises calls "fiduciary media." In fact, the original German title of *The Theory of Money and Credit*, *Theorie des Geldes und der Umlaufsmittel*, actually translates to "The Theory of Money and Fiduciary Media." Practically the entire third part of the book is devoted to a refutation of the central tenets of the Banking School. It is possible that the success of *Finance Capital*, and with it Hilferding's restatement of Banking School principles, provided some of the impetus for Mises' attention to the Currency-Banking debate.[54]

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[53] Although Mises does claim that the Currency School came close to perceiving what he views as the central problem of the business cycle: the divergence between the Money and Natural rates of interest. According to him, the Currency School understood the problems of fiduciary media and an artificially low rate of interest, but it never made the necessary leap to understand differences between interest rates (pp. 398-399). Mises implies that the reason for the Currency School's lack of a systematic cycle theory was due to their belief that it is impossible to "grant credit beyond the available amount of capital" (p. 343), and their concern only with problems of non-systematic credit expansion (pp.354-355).

[54] For example, in a note to the second edition of The Theory of Money and Credit, Mises criticizes Hilferding's understanding of the value of money and comments that "It was certainly an evil fate for Germany that its monetary and economic policy in recent years [i.e., during the hyperinflation of 1923]

Whatever Mises' exact motivation, there is no question that he is a strong opponent of the Banking School. In particular, Mises challenges the fundamental idea of limitations on note issue which defined so large a portion of Banking School writing. Mises does indeed acknowledge that redemption functions as an important check on bank policy, but also argues that if all banks expand their fiduciary issue together, the problem of redemption does not arise (pp. 312, 373, 325-326). So long as banks act in concert (or similarly, if a central bank controls fiduciary issue), redemption is an inadequate check on credit expansion.[55]

Mises singles out Tooke and Fullarton as the most important exponents of the Law of Reflux (and of the Banking School in general), and devotes serious attention to their analysis of fiduciary issue. His remarks are worth quoting *in extenso*:

> Tooke, Fullarton, Wilson, and their earlier English and German disciples, teach that it does not lie in the power of the banks-of-issue to increase or diminish their note-circulation. They say that the quantity of notes in circulation is settled by the demand within the community for media of payment… Expansion and contraction of the quantity of notes in circulation is said to be never the cause, always only the effect, of fluctuations in business life. It therefore follows that the behaviour of the banks is merely passive; they do not influence the circumstances which determine the amount of the total circulation, but are influenced by them… The fundamental error of the Banking School lies in its failure to understand the nature of the issue of fiduciary media. When the bank discounts a bill or grants a

should have been in the hands of men like Hilferding and Havenstein, who were not qualified even for dealing with the depreciation of the mark in relation to gold" (p. 200n1).

[55] Although Mises did recognize certain policy tools which might be used to (incompletely) restrict note issues, such as requiring cover for notes in the form of short-term bills (pp. 313-314).

loan in some other way, it exchanges a present good for a future good. Since the issuer creates the present good that it surrenders in the exchange - the fiduciary media practically out of nothing, it would only be possible to speak of a natural limitation of the quantity of fiduciary media if the quantity of future goods that are exchanged in the loan-market against present goods was limited to a fixed amount. But this is by no means the case. The quantity of future goods is indeed limited by external circumstances, but not that of the future goods that are offered on the market in the form of money. The issuers of the fiduciary media are able to induce an extension of the demand for them by reducing the interest demanded to a rate below the natural rate of interest… whereas on the other hand the demand for fiduciary media would be bound to cease entirely as soon as the rate asked by the bank was raised above the natural rate…

That demand for money and money-substitutes which determines the exchange-ratio between money and other economic goods achieves expression only in the behaviour of individuals when buying and selling other economic goods. Only when, say, money is being exchanged for bread is the position of the economic goods, money and commodity, in the value-scales of the individual parties to the transaction worked out and used as a basis of action; and from this the precise arithmetical exchange-ratio is determined. But when what is demanded is a money loan that is to be paid back in money again, then such considerations do not enter into the matter. Then only the difference in value between present goods and future goods is taken into account, and this alone has

> an influence on the determination of the exchange-ratio, i.e. on the determination of the level of the rate of interest.
>
> For this reason the Banking Principle is unable to prove that no more fiduciary media can be put into circulation than an amount determined by fixed circumstances not dependent on the will of the issuer. It has therefore directed its chief attention to the proof of the assertion that any superfluous quantity of fiduciary media will be driven out of circulation back to the issuing body. Unlike money, fiduciary media do not come on to the market as payments, but as loans, Fullarton teaches; they must therefore automatically flow back to the bank when the loan is repaid. This is true. But Fullarton overlooks the possibility that the debtor may procure the necessary quantity of fiduciary media for the repayment by taking up a new loan. (pp. 305-308)

It is easy to see that Mises' argument incorporates the Wicksellian distinction between Natural and Money rates of interest.[56] According to Mises, failing to distinguish between these two rates of interest was a major failing of the original Currency School (pp. 354-355).[57] It is precisely the banks' ability to issue credit at rates below the Natural rate which induces additional borrowing on the part of business. The demand for credit is not independent of the rate of interest on loans, but is partly determined by it (p. 354). It is important to note that Mises does not argue that undue expansions of bank credit will always occur, but merely that there is no necessary elasticity of the issue of fiduciary

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[56] Although Mises supports Wicksell's distinction, he is critical of it in one important regard: Mises denies Wicksell's contention that a tendency exists in the market which obliges the banks to adjust the Money rate to the Natural rate of interest (pp. 355-357), preventing any significant divergence between them. This lack of necessary connection between the two rates paves the way for Mises' theory of the business cycle.

[57] The Banking School, and Tooke especially, did devote attention to the theoretical problems of the interest rate, but also failed to draw the Wicksellian distinction.

media of the sort described by the Banking School: there is no economic principle to explain why excess fiduciary media must flow back to the banks if the banks choose simultaneously to expand the supply of fiduciary media together (pp. 311-312).[58]

Yet Mises continues, arguing that even if the simple reflux explanation were true, there would still be no substantive reason to believe that fiduciary issues can be restricted:

> The fatal error of Fullarton and his disciples was to have overlooked the fact that even convertible bank-notes remain permanently in circulation and can then bring about a glut of fiduciary media the consequences of which resemble those of an increase in the quantity of money in circulation. Even if it is true, as Fullarton insists, that bank-notes issued as loans automatically flow back to the bank after the term of the loan has passed, still this does not tell us anything about the question whether the bank is able to maintain them in circulation by repeated prolongation of the loan. The assertion that lies at the heart of the position taken up by the Banking School, viz., that it is impossible to set and permanently maintain in circulation more notes than will meet the public demand, is untenable; for the demand for credit is not a fixed quantity; it expands as the rate of interest falls, and contracts as the rate of interest rises. But since the rate of interest that is charged for loans made in fiduciary media created expressly for that purpose can be reduced by the banks in the first instance down to the limit set by the marginal utility of the capital used in the banking business, i.e. practically to zero, the whole edifice built up by Tooke's school collapses. (p. 345)

[58] Cf. also pp. 343-344.

In addition to all this, Mises contends that there is yet another error in the Banking School analysis, namely that the Banking School confused fiduciary media with money certificates (i.e. fully backed money substitutes) (p. 281). Mises' theory of money precludes the possibility of the overissue of money certificates, but not of fiduciary media (pp. 325-326). Mises also draws a sharp line between a credit transaction, which is simply a present good traded for a future good, and fiduciary media, the creation of which does not impose any restrictions on the borrower. Whereas in a credit exchange, the lender must necessarily restrict his own consumption so as to lend, in the case of fiduciary media the new money substitutes are created *ex nihilo*, and thus the lender does not have to restrict his present consumption (beyond that required by the physical cost of producing fiduciary media) (pp. 264-265).

Mises' theory of money also allows him to criticize another of the more serious Banking School arguments regarding overissue. Fullarton famously argued that hoards of money would absorb excess issue of bank notes when supply exceeded demand, and would release bank notes whenever demand exceeded supply, thus equilibrating the market for fiduciary media.[59] These hoards are idle in the sense that they do not effect economic calculations and prices.

Mises first points out the Banking School never tried to show *how* the process of storing up and of releasing of hoards would take place, an explanation which is absolutely necessary for the theory of hoards. More importantly however, Mises argues that when viewed through the lens of the marginal utility theory of money, the idea of "idle" stocks of money is untenable. Following Menger, Mises focused on the idea of money as a commodity like any other, in the sense that commodities are always held by

[59] Mises notes (p. 146) that this argument implicitly assumes the correctness of the Quantity Theory.

individuals, and are still the subject of economic activity even when they are "idle" in the common sense of the word. Every portion of the money supply is always owned by some individual somewhere, and appears as a good on that individual's value scales, and thus is incorporated into the price calculations of the monetary economy (pp. 147-150). That is to say, there is no activity "hoarding" which is economically different from holding money in a cash balance. This analysis fits appropriately with the "methodological individualism" of the Austrian School,[60] as opposed to Hilferding's theory, which perceives money as reflecting socially necessary labor time of production.

Mises thus rejects the endogenous approach to money espoused by Hilferding and the Banking School. Instead, Mises holds that the supply of fiduciary media is directly controlled by the banks of issue, and in particular, by the central bank, and he even goes so far as to describe fiduciary media as, "the indefinitely augmentable product of the arbitrary issuing activity of the banks" (p. 285). Banks are therefore the active (as opposed to the purely passive) institutions altering the supply of fiduciary media; that is to say, they are the exogenous source of fiduciary media, and the ultimate source of increases in the supply of money.[61]

From the above remarks it should be clear that in terms of monetary theory, Mises must be considered an intellectual successor to the Currency School, although his theoretical apparatus is derived using tools unavailable to the Classical economists, namely, marginal utility theory. Nevertheless, there are strong and explicit affinities not only between Mises' positive exposition of the theory of money and banking, but also in

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[60] Although the expression "methodological individualism" comes from Schumpeter (1908).

[61] Here we refer to what Mises described as "money in the broader sense," which includes both money and money substitutes. Cf. Mises [1924] 1953, pp. 482-483 for his particular categorization of the different types of money.

his negative appraisal of the Banking School, which demonstrate that Mises viewed himself (and should be viewed from the perspective of the history of economic thought) as a firm advocate of Currency School teaching.

C. Joseph Schumpeter and the Entrepreneurial Theory of Credit Expansion

While Hilferding and Mises can be classified firmly in the Banking and Currency Schools respectively, Schumpeter occupies a sort of middle ground between the two positions. It is therefore appropriate that *The Theory of Economic Development* appears chronologically as well as theoretically between the works of the other economists. As with his fellow Viennese economists, there is some discussion in *The Theory of Economic Development* concerning bank credit and its effects on the economic process which proves fundamental for the larger theoretical arguments. Monetary theory is not the focus of Schumpeter's book (as it was for Mises), nor was it the foundation upon which he constructed a theory of capitalism (as with Hilferding). For Schumpeter, monetary theory is one component of many in the analysis of the capitalist process.[62]

Schumpeter's book represents something of a problem for our thesis, because it includes few references to the economic literature, and none at all to the Currency-Banking dispute. However, given Schumpeter's other writing in the period,[63] it is clear that he was already thoroughly acquainted with 19th century monetary theory, especially in the British Classical tradition, and that he wished to develop his own theory in light of his studies in the history of economic thought. Also, given the early influence of

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[62] Schumpeter's own theory of money was never completed to his satisfaction, although portions of an unfinished manuscript on the theory of money have been published as Das Wesen des Geldes (1970).
[63] Cf. the comments scattered throughout Schumpeter ([1912] 1967).

Hilferding on Schumpeter, it appears likely that Schumpeter is attempting to clarify certain points of Hilferding's theory, including in the area of the theory of money and banking.

1. Credit Means of Payment

As mentioned above,[64] Schumpeter's development theory depends on the issue of uncovered notes and deposits, which he calls simply "credit means of payment" (p. 73). Credit means of payment are created exclusively for the entrepreneurs (that is, in the circular flow, no other source of demand for credit means of payment exists, nor are there other uses credit could be devoted to). Schumpeter therefore devotes significant attention to the potential problems of credit, especially to the problem of inflation.

Even though new credit will be used to finance innovations, Schumpeter notes that the issue of credit does not in itself increase the productive capacity of the economy (p. 108). It does, however, bid the factors of production away from their current uses. There is an inflationary movement and prices, specifically those of producers' goods, begin to rise. But this credit inflation is only temporary, and lasts only so long as no new stocks of goods appear on the market.

Schumpeter's view of this inflationary process is explained by way of an analogy. Purchasing power, of both the existing stock of money and the supply of bank credit, is like a gas circulating in a closed container. When more gas (i.e. more credit means of payment) are pumped into the container, the space allotted to each individual molecule of gas (the command of every unit of purchasing power) decreases proportionately. This "compression" of purchasing power constitutes the inflationary process.

[64] Chapter 2.

Schumpeter's analogy applies both to bank notes and bills circulating as media of exchange, and Schumpeter also accepts the Banking School's point that deposits are credit means of payment in addition to notes and bills (p. 109), thus avoiding the error of the Currency School.

The problem of credit inflation is therefore temporary and ultimately illusory: at first, credit is extended beyond the available supply of goods, but as soon as the entrepreneurs begin to produce, new goods flood the market, and although the new credit remains in circulation, its effects are cancelled out as prices adjust proportionately.

In fact, Schumpeter goes a step further, arguing that the process of credit creation and innovation may actually have net deflationary effects: "The entrepreneur must not only legally repay money to his banker, but he must also economically repay commodities to the reservoir of goods" (p. 110). But the entrepreneur does more than merely return the economy to its original productive levels; he must actually increase the amount of goods available to society. If he succeeds (and at this point Schumpeter is mostly unconcerned with the possibility of failure), he therefore increases the stock of goods beyond the increase in purchasing power (that is, beyond the effects of the increase of credit means of payment) (pp. 74, 233-235). Thus at the end of the period of economic development,

> the equivalence between the money and commodity streams is more than restored, the credit inflation more than eliminated, the effect upon prices more than compensated for, so that it may be said that there is no credit inflation at all in this case— rather deflation— but only a non-synchronous appearance of

purchasing power and of the commodities corresponding to it, which temporarily produces the semblance of inflation. (p. 110)

Schumpeter does not dwell on the precise difference between real inflation and the semblance of inflation, but it is implied that the prices of all goods in the economy rise proportionately, and that there are no distorting effects as there are, for example, in the credit theory of Mises. This is the natural conclusion derived from Schumpeter's gas analogy, which treats the relationship between credit and commodities as strictly proportional on net, and does not allow for the uneven alterations in the prices of producers' goods which incite errors in the pattern of production.[65]

The deflationary effects of development are, according to Schumpeter's theory, actually quite severe, because only income in the form of entrepreneurial profit and interest remain in the economy, while the credit means of payment return to the bank and are removed from circulation, thus exacerbating the deflation (p. 111). However, Schumpeter provides two reasons why the extent of deflation will be limited in actual banking practice. First, as Mises also pointed out, there is the possibility of prolonging loans, thus keeping credit means of payment (i.e. bills, notes and deposits) in circulation beyond the period of innovation. Although this would not solve the problem permanently, it does explain how deflationary tendencies could be temporarily limited (p. 111).

Second, Schumpeter argues that credit means of payment can remain permanently in circulation, because after the introduction of new commodities, the effects of credit are neutralized by new commodities, and actually loses its effect on prices altogether. Thus it is benign from the point of view of inflation, and there will be no special need to reduce the circulation. In fact, there may be an impetus to maintain it, because the previously

[65] In fact, Schumpeter rejects malinvestment theories of the business cycle, such as that of Mises (p. 231).

new credit is now incorporated into the circular flow, and may be used to cover further economic activities, although any such activities are not development in Schumpeter's sense, but merely ordinary production (p. 112).

This view of credit expansion is something of a cross between the Currency and Banking views: while credit expansion is inflationary in the Currency sense in the short run, in the longer run, which allows for the completion of production, expansion of the supply of credit beyond the supply of commodities is essentially impossible. This latter position is closer to the Banking School, although it does not depend upon the strict reflux theory of Fullarton to explain away inflation.

2. Schumpeter's Supply-and-Demand Theory of Credit Issue

Schumpeter uses a simple supply-and-demand theory to explain the determinants of the quantity of money in the economy. He treats the money supply as exogenous, with new credit being issued exclusively by banks (pp. 74, 195), but nevertheless not as a system without limits to expansion. The banker is not a passive agent as in the Banking School view, but rather is "the capitalist par excellence" (p. 74), the ultimate gatekeeper of all economic change.

With a redeemable standard, limits are set both by calls for redemption, and the export of gold. In this sense Schumpeter says nothing too different from the Currency School. Nevertheless, there are limits to these limitations, and room exists for the banks to cautiously increase the supply of credit means of payment, so long as "the resulting inflation is really temporary and moreover remains moderate" (p. 113). Schumpeter argues that there are two limitations to the supply of credit means of payment. First, the possibility of entrepreneurial failure limits the amount banks will be willing to issue, by

requiring the banks to exercise discretion in their lending policies (p. 114). But Schumpeter largely dismisses this limit by pointing out that the prices of loans will simply include a risk premium so as to avoid the problem of default (p. 195-196).[66]

Second, there is the risk of the depreciation of money substitutes through needless issue. As noted above, such inflation can only be "temporary" if new goods are introduced to counter the increase in the supply of credit. Because the process of development does not occur synchronously with increases in the supply of goods, there will be long periods of inflation during production. A bank of issue must therefore keep certain reserves (taken from ordinary savings), in order that they remain solvent during these periods. This reserve is a further limit on the expansion of credit.

These arguments lead Schumpeter to the conclusion that the limitations on the supply of money, while not rigid or quantitatively definable, are nevertheless significant:

> Therefore, even if we cannot, in the nature of things, state the limit to the creation of purchasing power… and even if the limit must vary according to the mentality of the people, legislation, and so on, yet we can state that there is such a limit at any time and what circumstances normally guarantee its maintenance. Its existence neither excludes the creation of purchasing power in our sense nor alters its significance. But it makes its volume at any time an elastic, though nevertheless definite, magnitude. (pp. 113-114)

Once again, Schumpeter walks a fine line between the position of Hilferding and the Banking School who altogether deny the possibility of overissue, and Mises and the Currency School, who hold that limitations on issue were essentially nonexistent.

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[66] The problem of bad credit risk was also typically assumed away by the Currency and Banking Schools, as well as Hilferding and Mises.

Although he does not delve deeply into the problem, Schumpeter also recognizes that banks acting together can permanently increase their issues and thus also the price level (pp. 114-115). He notes in passing, in accordance with the Currency position, that because of this ability, “special legal restrictions and special safety-valves are actually necessary in practice” (p. 115) in order to prevent excessive issues.

Concerning the demand for bank credit, Schumpeter introduces an interesting challenge to Banking-style interpretations of the “needs of trade.” Whereas the requirements of business had been viewed in the Banking traditions as definite limits to the ability to issue new bank credit, Schumpeter argues that the demand for credit means of payment comes from entrepreneurs, who will only wish to produce (that is, innovate) if they can earn a profit (p. 196). Schumpeter also points out that the number of potential innovations at any point in time is for all practical purposes unlimited. There is therefore no strict limit to the quantity of credit entrepreneurs might demand (p. 197). Limitations are therefore restricted to the supply side of the money market, and the elasticity of the quantity of credit is dependent almost entirely on these factors.

Schumpeter’s analysis of the early stages of the boom is quite similar to Mises’. Both economists agreed that the creation of credit means of payment would put excess purchasing power in the hands of individuals seeking to purchase producers’ goods. In fact, Schumpeter (erroneously) attributes to Mises the expression “forced saving” to refer to the rise in prices in producers’ goods industries and away from consumers’ goods which characterizes the boom phase of the business cycle (p. 109n1).[67] Mises in turn recognized *The Theory of Economic Development* as having successfully “grasped the nature of the problem” of the principles of bank credit (p. 175n2). Here, however, their

[67] On this and other issues relating to the different meanings of “forced saving,” cf. Machlup (1943).

agreement ends. Credit creation for Schumpeter is both necessary for economic development and benign in terms of the negative effects of inflation. For Mises, however, the issue of fiduciary media is a matter fully at the discretion of the banks, and its overissue sets in motion malinvestments which lead inevitably to the bust, and not to sustainable growth.

On the one hand, Schumpeter's analysis of the limitations on the creation of credit means of payment resembles the Currency School, in the sense that he does not perceive serious limitations to a dedicated attempt to issue credit. On the other hand, his theory of development explicitly incorporates an expansion of the quantity of bank credit which, although exogenously determined, is not only not harmful but is in fact beneficial, a theory closer to the Banking School understanding of money and credit (although, as mentioned above, different is some key respects). Schumpeter's theory, however, focuses less on past influence than it does on his relatively original theory of economic development. In this sense we might say, without disrespect to Hilferding and Mises, that Schumpeter's theory was more path-breaking than that of his contemporaries.

D. Conclusion

Although a somewhat neglected chapter in the history of economic thought, the dispute between the Currency and Banking Schools had a profound impact on at least three distinct approaches to economics, as exemplified by Hilferding, Mises, and Schumpeter. We can see the strength of the ideas of both the Currency and Banking Schools as they are reflected in the works of a later generation of economists. What is most striking is the fact that this influence was felt by economists with such the wide-

ranging differences: differences which serve as an appropriate testament to the brilliance of the earlier Schools.

What is perhaps most interesting is that, although each of these works contains considerable discussion of money and banking doctrine, each to some extent depends on entrepreneurial theory. We have then seen how these development theories complement monetary theory.

Hilferding's entrepreneur performs the mechanical work of the capitalist system, managing the production process at the bidding of the capitalist class. It is this allocation of resources which fuels the expansion of the capitalist economy and makes possible the development of economic institutions which eventually leads to the emergence of finance capital as the controlling organ of the economy, and eventually to the emergence of socialism. Bank credit in this system is vitally important, but depends upon the needs of trade and cannot be overissued, and therefore constitutes no significant economic problem. Banking School doctrine is the foundation for this unorthodox view of economic development.

Mises, however, opposes this view strongly and argues that credit expansion is inimical to the process of sustainable economic growth, focusing on the malinvestment brought on by a divergence between the Real and Money rates of interest. For this theory, saving (in the sense of abstaining from present consumption) is necessary to fuel real (as opposed to temporary and ultimately illusory) economic growth. Although Mises followed the Currency School tradition, his work in money and banking has been carried

on by at least two traditions. The first may be referred to as the Neo-currency School, and the second, the Free Banking, or Neo-Banking School.[68]

Schumpeter refuses to side firmly with either school (and in fact, derided the whole notion of 'schools' of thought). He proposes and entrepreneurial theory of economic development which is inextricably linked with credit expansion, which Schumpeter claims is a necessary economic force, countered and ultimately rendered benign by creative entrepreneurs introducing new combinations.

By focusing on the nature of dynamic change in the economy, Hilferding, Mises, and Schumpeter introduced theories that complement and, in their particular ways, complete the theories of the earlier schools. Through their respective analyses of money and credit, each economist attempted to explain a part of the process of economic change in capitalist society. The enduring power of these arguments may be seen from the fact that there is still much debate on aspects of the theoretical and empirical questions raised by these early writers, debate which appears not yet to bear all the fruit of which it is capable.

We are left with a troubling question however. If the Currency-Banking debate and its influence are so important, why is it that they have been relatively neglected both in the history of economic thought and in current discussions of monetary theory and policy?

Throughout the end of the 19th century and the early decades of the 20th, a definite shift occurred in monetary and growth economics away from the issues described above and toward a more aggregative, purely macroeconomic approach. While there were many

[68] For a historical and theoretical framework for analysis of these schools, cf. for example Huerta de Soto (2006) and White (1984), for the Neo-Currency and Free-Banking Schools, respectively.

reasons for such a change, two in particular stand out: the influence of John Maynard Keynes, and the web of protective forces which sprung up around banking institutions in the western world.

Although it had begun earlier, with the work of economists such as Irving Fisher, the shift in focus was crystallized in the Great Depression, which ostensibly challenged conventional monetary theory and demanded both new theories and new policies to explain and address economic crises. This demand was famously met by Keynes in his *The General Theory of Employment, Interest, and Money* (1936). While the writings of Mises and his early disciples had enjoyed some popularity in the late twenties and early thirties, by the time Keynes' treatise appeared there was little resistance from this quarter, and more importantly, popular demand for strong policy responses such as those suggested by Keynes had increased dramatically.

In any case, *The General Theory* helped to shift the focus of monetary policy decisively away from institutional questions such as how best to limit credit expansion by a central bank (or whether to have a central bank at all) and toward the macroeconomic problems which remain with us today in one form or another: increasing or stabilizing aggregate spending, full employment policies, and so on. The questions of earlier generations—could banks expand credit arbitrarily, and if so what are the effects of credit on the economy—were forgotten as it became a matter of course that monetary policy should steer credit expansion and contraction in accordance with current economic conditions. Although the theories disputed by the Currency and Banking Schools had been neglected to some extent before *The General Theory*, its success ensured their disappearance from most policy discussions.

There is also a major institutional barrier to theory and policy discussions such as those we have described. To wit, a central bank or bank of issue is in a unique position in regard to its potential clients, possessing a special ability to influence the supply of credit to the benefit of whatever parties the bank happens to favor. There is a rent-seeking tendency which exists exclusively for banks of issue, and some have even argued that rent-seeking is the reason institutions such as the Federal Reserve were created in the first place (Rothbard, 1994). Historically, central banks have influenced and been influenced by many of the most important economic concerns. As one example, it is clear that the ability to grant relatively cheap credit to businesses will be highly valued by those seeking loans at prices below those currently being offered on the market.

This system of incentives also might explain in part the absence of debate on the sort of issues addressed by the Currency and Banking Schools. Whatever the historical details though, it is clear that the ability to grant credit brings with it a whole host of incentives which encourage rent-seeking at the expense of competition between firms. It is not surprising that institutions should protect their own interests, and thus it is no surprise that discussion of the usefulness or even the feasibility of central banks and related institutions and practices should be absent from prominent discussions of monetary policy. Of course the extent to which banks can grant credit will play a large role in shaping economic affairs. This is precisely why the arguments of the Currency and Banking Schools and their disciples are so important even today, a century or more after their initial publication.

Ultimately however, we cannot appreciate the significance of current problems in monetary economics without first understanding the role of bank credit in the economic

system: its economic origin, how it is distributed in the economy and to whom, and the role credit plays when influenced by different monetary institutions. To acquire this understanding we must start with the simplest, pursuing many of the same answers to the questions asked by the Currency and Banking Schools, and later by their disciples. We have presented three theories which purport to explain economic growth and the credit system, three theories which have been neglected in light of the changing landscape of modern macroeconomics. Most importantly, each of these three theories offers an explanation of current economic problems which has not been addressed in current discussions of the business cycle. However, the difficulty in explaining the length and depth of the current economic crisis itself provides ample reason to desire alternative theories of the business cycle, and we could not go far wrong in revisiting theories which endeavored to explain such crises in the past.

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