

# THE AUSTRIAN SCHOOL IN THE REVIEWS OF THE FEDERAL RESERVE SYSTEM

By: Greg Kaza

**Abstract:** Forty-three essays in Federal Reserve reviews published since the central bank's founding in 1914 include text references to Austrian School economists. References to any economist or school were rare in the central bank's first half-century (1914-1964). Fed reviews evolved in the subsequent period and references to economists and schools are common today. The business cycle is a frequently cited topic among references to Austrians but the Misesian theory identifying central banks as the source of malinvestment is not examined. The works of Austrians Joseph A. Schumpeter, Friedrich A. von Hayek and Ludwig von Mises are cited most frequently in text references published in Fed reviews.

**Key words:** Federal Reserve System, Austrian School of Economics, business cycle

References to the works of economists and economic schools of thought are a relatively recent development in texts of reviews<sup>1</sup> published by Federal Reserve System member banks. Text references in reviews were rare in the central bank's first half-century (1914-1964) of operation.

An early example featured a text reference to Henry George in the

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<sup>1</sup> The 12 Federal Reserve member banks are Atlanta, Boston, Chicago, Cleveland, Dallas, Kansas City, Minneapolis, New York, Philadelphia, Richmond, St. Louis and San Francisco. This paper is not a survey of references to the Austrian School in annual reports, conferences, working papers or other published material. For annual reports see Cleveland 1995, 1998, 1999 and 2000, and Dallas 1992, 1997 and 1999. For a conference reference see Paul A. Samuelson, "Summing Up Business Cycles: Opening Address," at Boston Conference Series No. 42: "Beyond Shocks: What Causes Business Cycles?" For working papers see Thomas M. Humphrey (July 1975) Richmond Working Paper 75-2. "Interest Rates, Expectations, And The Wicksellian Price Rule;" Gerald P. O'Driscoll, Jr. (December 1985) Dallas Research Paper 8508. "Money: Menger's Evolutionary Theory;" Milind Shrikande (July 1997) Atlanta Working Paper 97-3. "The Cost of Doing Business Abroad and International Capital Market Equilibrium;" Gerald P. Dwyer, Jr. and James R. Lothian (June 2002) Kansas City Working Paper 2002-7, "International Money and Common Currencies in Historical Perspective;" and Antoine Martin and Stacey L. Schreft (2003) Working Paper RWP 03-04. "Currency Competition: A Partial Vindication of Hayek." For other published material see essays by Dallas Senior Economist Robert L. Formaini in *Economic Insights*: Volumes 3-8, No. 1; Vol. 6, Numbers 3 and 4; and Vol. 7, No. 3; and Minneapolis Vice President and Director of Public Affairs David Levy in *The Region* (November 1990, June 1992 and June 1999). The latter, an interview with Reserve Bank of New Zealand Governor Donald Brash, includes a reference to Hayek.

anonymous essay, "Municipal Income Taxation," published in the *Federal Reserve Bank of Richmond Monthly Review* (July 1948, pp. 3-6):

"A "best seller" in the early 1880s was, strangely enough, a book dealing with economics and advancing a new social philosophy that was based on a very simple plan of tax reform. The title of this unique volume was *Progress and Poverty*, written by Henry George in San Francisco in 1879. In brief, George proposed to "appropriate all rent by taxation (and) to abolish all taxation save that upon land values." His impassioned and eloquent plea for the "single tax" so captured popular support that in 1886, after having moved from San Francisco, he was persuaded to become a candidate for the office of mayor of New York and, it is claimed, would have overcome the narrow margin by which he was defeated had there been an honest count of votes. Although the fundamental ideas of Henry George are still advanced by an active organization, actual tax experience has moved in a diametrically opposite direction. The tax structure in this country has become more and more complex and tax patterns are as numerous and varied as are units of state and local government."

Murdoch (1961, Philadelphia) includes a text reference to Thorstein Veblen in his essay, "From Ben Hur To Yogi Berra." Murdoch notes Veblen's contention that sports in pagan Rome bore as much resemblance to physical culture as a bullfight does to agriculture.

A text reference to John Maynard Keynes in this period appeared in the September 1951 issue of the *Federal Reserve Bulletin*, which reprinted the twenty-first Annual Report of the Bank for International Settlements:

“The great depression of the 1930’s, with the terrific losses it occasioned and the persistence of a high unemployment figure in some of the leading industrial countries, made a very great impression on people’s minds and affected their economic beliefs more profoundly than either of the two World Wars. In the theoretical sphere there was Keynes’s “General Theory of Employment, Interest and Money” (published in 1936) and in the practical sphere the “New Deal” in the United States and, in a different setting, Germany’s policy of full employment, public works, and rearmaments, financed under conditions approximating to a closed economy. In all these cases “cheap money” and substantial additions to the volume of monetary demand played a decisive role...”<sup>2</sup>

An example of a reference to a school of thought is the second Annual BIS Report, reprinted in the *Federal Reserve Bulletin* of June 1932:

“The classical remedy of increase of the discount rate proved inoperative in checking the withdrawal of foreign funds, for the reason that mobile capital was seeking security, with little or no return, rather than high interest rates coupled with currency and credit risks...Consequently, the banking systems involved turned for help to the principal financial capitals abroad, to foreign banks of issue, and to the Bank for International Settlements.”

A reference to schools of economic thought appeared in the anonymous essay, “Federal Fiscal Policy And Taxation,” in the *Federal Reserve Bank of Dallas Monthly Business Review* (March 1, 1946, pp. 29-30):

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<sup>2</sup> *Federal Reserve Bulletin* (September 1951): 1104-1128. The Keynes reference is not indexed. *Bulletin* (December 1951): 1611-35. Austrian citations in this paper are not indexed in Federal Reserve reviews.

“The severe impact of the depression provided a fertile soil for the growth and development of economic theories which had received, at most, only slight acceptance in earlier, more prosperous years. A new school of economic thought compounded of certain of those theories gained increasing recognition, and its members advanced new views with respect to the objectives of Federal fiscal policy. The central theme of these views is that fiscal policy should be used as an instrument of economic control to lessen or possibly prevent fluctuations in business activity and to secure a high degree of stability in our economic system at some predetermined desired level. Extremists of this point of view hold the opinion that a central objective of fiscal policy must be compensatory spending and budgetary deficits, not merely a temporary adjustment but as a more or less continuous adjustment to the total spending, if so-called “full employment” is to be assured.

“The middle ground between the position taken by such extremists and by those who still contend for the objectives which were fairly representative of the period prior to the great depression, offers probably a more realistic of the present-day objectives of Federal fiscal policy. That view of the objectives of fiscal policy gives recognition to the economic developments which occurred during the turbulent years of this generation and which have modified the framework of our economic system. It also acknowledges that fiscal policy properly conceived and time may have stabilizing influences.”<sup>3</sup>

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<sup>3</sup> The Dallas bank’s *Monthly Business Review* (Nov. 1, 1948) examined “three major categories” of “economic and business thought” in an essay on the business cycle, “Implications Of The Economic Outlook To Business Practices,” (pp. 175-82): “There is no simple explanation of the business cycle. In fact, there is probably no generally accepted theory as to the causes of business fluctuations. Too many factors, complex and often unpredictable or not subject to accurate measurement, influence the trend of business to permit the development of a simple, clear explanation of the cycle or a definitive forecast as to the precise timing and magnitude of the future course of economic activity. In some respects, perhaps, economics is somewhat more of an art than a science.”

The lack of references to economists and schools should not be interpreted as criticism. Member bank reviews in the era emphasized reporting of economic conditions, not theoretical discussions citing works of economists. Economists can learn a great deal from these reports. Early in the 1926-27 recession<sup>4</sup>, the Cleveland bank's *Monthly Business Review* (Dec. 1, 1926, p. 2) noted demand for Iron and Steel, higher-order sectors in Austrian Business Cycle Theory, "has shown a moderate but steady contraction in the past month...Curtailement of automobile production," another higher-order sector, "is the outstanding factor in the Cleveland district." During the 1937-38 recession, the Chicago bank's *Monthly Review* (Oct. 28, 1937, p. 5) observed, "From 86 percent of capacity at the beginning of September, steel ingot output of Chicago district mills had dropped to only 45 percent of capacity in the middle of October, which latter rate is almost 30 points lower than a year ago at the same time." The San Francisco bank reported on "the credit situation" in its *Monthly Review of Business Conditions* (November 1929, pp. 87-88) following the stock market crash: "During the five weeks ended November 20, the volume of discounts...advanced rapidly to the highest figure since 1921. Underlying this movement was an increase in member bank loans and a decrease in member bank deposits, which reflected expansion of local demand for credit based on securities and substantial transfers of funds to New York...Not since 1921 has the Federal Reserve Bank of San Francisco been called upon to furnish so large a volume of credit as

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<sup>4</sup> The recession dates cited in this paper are from the National Bureau of Economic Research (NBER).

during the past few weeks.” These economic reports bear many similarities to the Federal Reserve’s *Beige Book* in the modern era.

Explicit references to economists and schools of thought began appearing in the late 1950s and early 1960s. The Minneapolis bank’s April 1957 *Monthly Review* contains an early example of a footnote. The Cleveland bank’s January 1963 *Economic Review* includes a text reference to “the so-called Keynesians” and “the so-called monetarists.” Essays in the late 1960s and early 1970s featured references to Keynes and Milton Friedman on the importance of fiscal versus monetary policy. Outstanding examples were in reviews of New York and St. Louis banks.<sup>5</sup>

### **The Evolution of Federal Reserve Reviews**

The evolution from broad references to unnamed economists and schools to explicit citations of both is illustrated by the reviews’ treatment of Joseph A. Schumpeter (1883-1950)<sup>6</sup> and his “creative destruction” concept during a 50-year period in Federal Reserve System history. The

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<sup>5</sup> For New York see Davis (1968, 1969) and Corrigan (1970). For St. Louis see Brunner (1968), Andersen and Jordan (1968), Fand (1970), and Andersen and Carlson (1970).

<sup>6</sup> Salerno (1999, p. 42) concludes Bohm-Bawerk considered Schumpeter “far and away the most promising of the third generation of Austrian economists” despite reservations about his price theory. Salerno cites Hayek’s observation that Schumpeter (1908) “made a contribution to the tradition of the Austrian School which is sufficiently original to be made available to a wider public.” The Soviet economist Bukharin ([1914] 1968, p. 177) also identified Schumpeter as “one of the principal representatives of the Austrian School.” Schumpeter was not a uniform Austrian. Elizabeth Boody Schumpeter, his widow, wrote in her foreword (p. x) to Schumpeter (1951): “Although he had high regard for the work of the Austrian School in which he was trained, he was even more interested in another school that developed a marginal utility theory of value—he School of Lausanne, which grew out of the work of Walras.” For Schumpeter’s failure to break out of the Walrasian box see Rothbard (1987).

sequence starts with an unattributed reference to the Schumpeterian idea and reaches its peak in 18 speeches by the Federal Reserve's chairman.

Schumpeter (1942) notes capitalism "is by nature a form or method of economic change and not only never is but never can be stationary:

"The opening up of new markets, foreign or domestic, and the organizational development from the craft shop and factory to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure *from within*, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism." (p. 83)

The early reference to "creative destruction," by Rauber (1954, Atlanta), was attributed to "someone," not Schumpeter:

"In the end, however, our most solid ground for hope must lie in the genius of the American capitalist system itself. Someone once defined capitalism as a process for the creative destruction of capital. He meant thereby that our economic system grows and regenerates itself continuously through the abandonment and destruction of old, uneconomical, and unproductive processes and machines in favor of the newer, more economical, and more productive."

A decade later, as references to economists became more frequent, the Cleveland bank's *Economic Review* (November 1965, pp. 2-11) published an anonymous essay based upon "creative response," a similar Schumpeterian concept. Production under capitalism undergoes

constant change, according to Schumpeter (1947), and entrepreneurs have the greatest capacity for “creative response:”

“(W)henever the economy or an industry or some firms in an industry do something else, something that is outside of the range of existing practice, we may speak of creative response.”

The Cleveland essay, “Sources Of Commercial Bank Funds: An Example Of “Creative Response” begins with the following text reference:

“This article considers the growing importance of newly innovated sources of commercial bank funds. It thus is concerned with the “creative response” of an industry—in this case, commercial banking—to a new environment in which old or traditional ways of conducting business will no longer produce the same results. In other words, the article examines what banks have done to attract funds in a period when traditional ways proved less than adequate.”

Schumpeter is cited in a footnote, not a text reference:

“The term is borrowed from Joseph A. Schumpeter, “The Creative Response in Economic History,” *Journal of Economic History*,” Vol. VII, November 1947.

Another decade passes before Schumpeter is cited in a text reference. Humphrey (1975, Richmond) cites Schumpeter on Henry Thornton, one of two 19<sup>th</sup> Century architects, with Walter Bagehot, of the classical lender

of last resort doctrine. Between 1987 and 1995, Schumpeter (1954)<sup>7</sup> is cited in the texts<sup>8</sup> of six reviews but none includes a reference to “creative destruction.” Hetzel (1987, Richmond) cites Schumpeter on “the relationship between Thornton’s and Knut Wicksell’s views of credit creation.” Humphrey (1989, Richmond) cites Schumpeter on the lender of last resort. Humphrey (1994, Richmond) cites Schumpeter on John Wheatley’s crude version of the quantity theory of money. Humphrey (1995, Richmond) cites Schumpeter on John Stuart Mill’s description of the offer-curve diagram. An intriguing reference to Schumpeter is Humphrey (1992, Richmond), which debunks the idea “the conventional partial equilibrium demand-and-supply curve diagram of the textbooks” originated with Alfred Marshall:

“(T)he diagram’s applications are of course well known. Not so well known, however, are its origins and early history. Economists typically tend to associate the diagram with Alfred Marshall, its most persuasive and influential nineteenth century expositor...The diagram itself, however, long predates Marshall...Such discounting of the pre-Marshall work has contributed to what Joseph Schumpeter (1954: 839n. 13) complained of as economists’ “uncritical habit of attributing to Marshall what should, in the ‘objective’ sense, be attributed to others (even the ‘Marshallian’ demand curve!).” Seen this way, Marshall’s definitive contribution

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<sup>7</sup> For a review see Viner (1954) who writes, “It is the substantial portions of the book which he devotes to exposition, appraisal, and praise, of the economic analysis of Cantillon, Quesnay, Marx, Jevons, Menger and Bohm-Bawerk, Cournot, and Walras—and less enthusiastically, Adam Smith, Marshall, and Fisher—which constitute its most valuable contribution. Nowhere else, I think, in the literature of our discipline, can one find, within comparable limitations of space, as brilliant, and as self-effacing, exposition by one economist, himself a master, of the analytical achievements of other economists.”

<sup>8</sup> Becsi and Wang (1997, Atlanta) and Little and Olivei (Boston 1999) cite Schumpeter’s idea about the importance of a sound financial system contributing to economic growth. Other text references to Schumpeter are Fuhrer (1994, Boston) and Patinkin (1993, Richmond). For a footnote reference in this era see Osborne (1984).

emerges as the *culmination* of the diagram's development. Economists, Schumpeter thought, misperceived it as the *origin*.<sup>9</sup>

Fifty years after Schumpeter wrote about "creative destruction," Napoli (1992, Chicago) opens her essay on derivatives by quoting the Austrian:

"The opening up of new markets, foreign or domestic, and the organizational development...illustrate the same process of industrial mutation-if I may use that biological term-that incessantly revolutionizes the economic structure *from within*, incessantly destroying the old one, incessantly creating a new one."

Ironically, a more appropriate citation would be von Mises (1912) on "fiduciary media" as a transmission mechanism for credit expansion. Von Mises distinguished between loan-backed reserves and "fiduciary media." He maintained fiduciary media "enlarges the bank's funds available for lending beyond these limits." A transaction involving derivatives, found by a court<sup>10</sup> to be a disguised "loan," would constitute fiduciary media.

The historical sequence peaks with Federal Reserve Chairman Alan Greenspan. Between 1997 and 2001 Mr. Greenspan cited "creative

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<sup>9</sup> Humphrey concludes "at least five economists-Antoine-Augustin Cournot (1838), Karl Rau (1841), Jules Dupuit (1844), Hans von Mangoldt (1863), and Fleeming Jenkin (1870)" employed the curve diagram in print before Marshall. The first four, he writes, "did so before Marshall began his career as an economist."

<sup>10</sup> *J.P. Morgan Chase Bank v. Liberty Mutual Insurance Co.*, 01 Civ. 11523, U.S. District Judge Jed S. Rakoff Decision of Interest (December 2002).

destruction” in 18 speeches. Other Fed officials, bank presidents<sup>11</sup> and economists followed. Nakamura (2000, Philadelphia) is one example:

“In the 18th century, Adam Smith offered his theory of the invisible hand and the view that perfect competition is the main spur to economic efficiency. The theory of the invisible hand, as it has evolved in modern economic thought, treats creative activity as being outside the scope of economic theory. In the 20th century, Joseph Schumpeter (1942) offered an alternative perspective: creativity is an economic activity. He argued that a capitalist market system rewards change by allowing those who create new products and processes to capture some of the benefits of their creations in the form of short-term monopoly profits, a situation that promotes what Schumpeter called "creative destruction.”

Another is Formaini (2001, Dallas), a fine survey of entrepreneurship in economic theory that examines “creative destructive” in relation to the business cycle.

### **The Limits of Evolution: Theories of The Business Cycle**

The business cycle is a frequently cited topic among references to Austrians, but the Misesian theory identifying central banks as the source of malinvestment is not examined. Eleven text references in Fed reviews

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<sup>11</sup> For references to Schumpeter’s “Creative destruction” see speeches by Chairman Greenspan (March 22 and June 10, 1997; Feb. 27, March 3, April 2 and Sept. 4, 1998; Feb. 16, March 9, April 16, June 10, and Sept. 8, 1999; July 11, Aug. 25 and Oct. 16, 2000; April 4, May 10, Oct. 24 and Dec. 3, 2001); Board of Governors Vice Chairman Roger W. Ferguson, Jr. (May 11, 2000); New York President William J. McDonough (March 20, 2003); and Atlanta President Jack Gwynn (Jan. 6, 2003).

refer to Austrians on the business cycle. Yet the Austrian theory's (ABCT) identification of the central bank as the major actor in the cycle due to its intervention with the market's free determination of the natural rate of interest is largely ignored. The failure to consider ABCT for purposes of rebuttal except for one essay illustrates the limits of evolution.

Formaini (2001, Dallas) is a rare exception:

“(S)chumpeter’s entrepreneurs are the causes of business cycles because their actions create dislocations that can come in waves. Cyclic downturns are characterized by what Ludwig von Mises (1881-1973) called a “cluster of errors” as most entrepreneurs suddenly guess wrong. Why? Schumpeter suggests three reasons: (1) innovative ways of applying existing inventions and resources immediately trigger emulation by others; (2) the extra demand that financial backing gives to these undertakings is financed by credit-expanding activities that banks can engage in under a fractional reserve system; (3) the new undertakings generate “spillover effects” and trigger similar dislocations in other industries (Schohl 1999).<sup>12</sup> Schumpeter emerged from the Austrian tradition, and his business cycle theory as well as his ideas about entrepreneurs were influenced by previous work in that tradition.”<sup>13</sup>

The essay touches on the key role that fractional-reserve systems—indeed, central banks and the *credit structure* (von Mises 1912)—play in

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<sup>12</sup> Schohl concludes Schumpeter’s (1951, p. 155) claim to examine “how firms rise and decline...and how this rise and decline affects the aggregates” is still “a neglected issue on the profession’s research agenda.”

<sup>13</sup> Formaini cites other Austrians on entrepreneurship. These are Carl Menger (1840-1921), Friedrich von Wieser (1851-1926), Friedrich A. von Hayek (1899-1992), Murray N. Rothbard (1926-93), Ludwig Lachmann (1906-90) and Israel Kirzner (1930-).

Austrian theory on economic fluctuations and the business cycle. But elsewhere the reviews present cyclical theories within narrow parameters.

Hayekian and Misesian cyclical theories are virtually ignored in Fed reviews. The most common text citation to an Austrian is Haberler<sup>14</sup> (1937) as found in Dotsey and King (1988, Richmond); Kydland and Prescott (1990, Minneapolis); Diebold and Rudebusch (2001, San Francisco); and Ludvigson, Steindel and Lettau (2002, New York).

Haberler (1900-1995) wrote the book early in his career, and devotes more pages to what he terms “monetary over-investment theories,” whose adherents include Austrians, than any other theory, yet these are overlooked in Fed reviews that cite his work.

Dotsey and King (1988) cite Haberler as a “classic interwar survey of business cycle theory.” They discuss “the role of expectations...(which) also constitute an independent source of shocks in “psychological” theories of the business cycle.

Kydland and Prescott (1990) cite Haberler for “an extensive overview” of alternative views of business cycles but also ignore the Austrians. Rather, they present the cycle in light of established neoclassical growth theory. “The study of business cycles,” they write, “flourished from the

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<sup>14</sup> Craver (1986) and Salerno (1999) identify Haberler with the Austrian school. Haberler studied under Wieser and von Mises at the Univ. of Vienna, where he earned doctorates in law and economics. For a review of Haberler (1937) see Ellsworth (1940). Footnote references to Haberler in the era include Cantor and Wenninger (1993, New York), Walsh (1986, Philadelphia); and Kumar and Whitt (1992, Atlanta)

1920s through the 1940s” but “ceased to be an active area of economic research” in the 1950s and 1960s. “Now, once again, the study of business cycles, in the form of recurrent fluctuations, is alive. At the leading research centers, economists are again concerned with the question of why, in market economies, aggregate output and employment undergo repeated fluctuations about trend.”

Diebold and Rudebusch (2001) cite Haberler on “maladjustments” in their essay on five unanswered questions about the business cycle:

“The notion of the increasing fragility of an aging expansion had wide currency among business cycle theorists in the prewar era. Gottfried Haberler’s (1937) classic synthesis of prewar business cycle theory devotes an entire section to this topic with the title “Why the Economic System Becomes Less and Less Capable of Withstanding Deflationary Shocks After an Expansion Has Progressed Beyond a Certain Point.” Additionally, there is a section entitled, “Why the Economic System Becomes More and More Responsive to Expansionary Stimuli After the Contraction Has Progressed Beyond a Certain Point.” In both sections, Haberler finds the reasoning, which is based on the inelasticity of the supply of money and of the factors of production, compelling. Indeed, the fact that an economic expansion or contraction gave rise to “maladjustments in the economic system (counterforces) which tend to check and reverse” itself was usually accepted by early writers as “dogma, at least so far as the expansion is concerned.”

Ludvigson, Steindel and Lettau (2002) cite Haberler on stabilization in periods of economic fluctuation:

“The wealth channel has deep roots in the literature on monetary policy and economic stabilization, reaching back at least to the earliest literature stimulated by Keynes’ *General Theory*. Early on, Gottfried Haberler and A.C. Pigou noted that changes in consumer spending generated by countercyclical changes in the real value of the money stock could help provide an automatic stabilizing force to any economy subject to inflationary and deflationary forces.”

The failure to consider ABCT is surprising when one considers Haberler (1937), which lists the following cyclical theories in its index:

- ❖ Debt deflation theory, pp. 113-16
- ❖ Error theories, 111-12
- ❖ Harvest theories, 151-67
- ❖ Monetary over-investment theories, 7, 33-72
- ❖ Monetary under-consumption theories, 134
- ❖ Non-monetary over-investment theories, 7, 72-85
- ❖ Psychological theories, 142-49
- ❖ Purely monetary theory, 14-28
- ❖ Under-consumption (over-saving) theories, 118-41, 214-5

The greatest number of pages, 41, are devoted to Haberler’s examination of “monetary over-investment theories,” which he identifies with Austrians von Hayek, Fritz Machlup, von Mises, and Richard Strigl. Wilhelm Ropke and Lionel Robbins are also identified.

Haberler describes “monetary over-investment theories” as follows:

“According to the over-investment theorists, this phenomenon is the symptom of a serious maladjustment which develops during the upswing. The capital-goods industries, it is argued, are relatively over-developed: the production of capital goods as compared with the production of consumer goods is pushed farther than the underlying situation can permanently tolerate. Thus it is a real maladjustment in the structure of production that causes the breakdown of the boom, and not a mere shortage of money due to an insufficiency of bank reserves. It follows that, after the boom has once been allowed to develop, the setback cannot be staved off indefinitely by monetary measures.” (pp. 29-30)

Haberler concludes, “The most valuable and original contribution of the monetary over-investment theory are (1) the analysis of the maladjustment in the structure of production brought about by the credit expansion during the prosperity phase of the cycle and (2) the explanation of the breakdown as consequent on that maladjustment.” (p. 71). Haberler cites von Mises (1934) at the start of his survey (p. 33), and again, with von Hayek near the end of his book (p. 462):

“Another school that explains the cycle by monetary factors starts from Wicksell’s distinction between the market or money rate of interest, on the one hand, and the natural or equilibrium rate on the other. Wicksell himself did not hold a purely monetary theory of the cycle, but Mises and Hayek, to mention only two, did. They believe that the initiating cause of the cycle can always be found on the monetary side, on the supply side of money. Excessive supply of credit (that is to say, credit creation in excess of “voluntary savings”—the precise criterion of

excessiveness not being always the same) depresses the market or money rate of interest below its equilibrium level; this starts a Wicksellian cumulative process which necessarily ends in crisis and depression.”

The role of Austrians, including von Hayek and von Mises, is recognized in modern business cycle literature. Zarnowitz (1992, p. 32n7), a member of the NBER’s Business Cycle Dating Committee, explains in his survey<sup>15</sup>:

“The classics of business cycle literature made lasting contributions to the description and analysis of the motion of industrialized market economies. They addressed the cumulative processes of inflationary expansions and deflationary contractions induced by bank credit fluctuations constrained by the availability of reserves under the gold standard (Hawtrey 1913). The role of discrepancies between the market and the “natural” interest rates in this process was much explored following Knut Wicksell ([1898] 1936). At below-equilibrium market rates, excessive bank credit creation produces overinvestment in capital-goods industries and imposes “forced saving” on those whose incomes lag behind inflation (Hayek 1933).

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<sup>15</sup> Zarnowitz makes the following observation (1992, p. 32n7) about Schumpeter: “For Schumpeter, the basic mechanism of credit-financed innovations is of much greater intrinsic interests than the multitude of diverse “external factors,” no matter how important the latter may be on any particular occasion.” (1935-1939, vol. I, chs. 1-4)

Zarnowitz, in discussing (p. 68) interest rates and related factors, notes:

“These received much attention in the literature from Wicksell and the Austrians to Keynes. Monetary intervention or excesses of credit creation were seen as causing interest rates to divert from their equilibrium levels so that they fail to coordinate saving and investment decisions. Inconsistencies arise in the aggregate between the expectations of those who make these decisions and the expectations of the financial intermediaries. Monetarists opposed these ideas on the ground that investment and savings depend on the *real* interest rates, which cannot be affected by the banking system, except transitorily.”

Austrians mentioned by Zarnowitz are von Hayek and von Mises (p. 68).

Von Mises ([1949] 1963) uses a different term, and is clear in distinguishing between *overinvestment* and what he calls *malinvestment*:

“It is customary to describe the boom as overinvestment. However, additional investment is only possible to the extent that there is an additional supply of capital goods available. As, apart from forced saving, the boom itself does not result in a restriction but rather in an increase in consumption, it does not procure more capital goods for new investment. The essence of the credit-expansion boom is not overinvestment, but investment in wrong lines, i.e., malinvestment.”  
(p. 559)

Von Mises' emphasis on *malinvestment* is clear from this passage:

“The erroneous belief that the essential feature of the boom is overinvestment and not malinvestment is due to the habit of judging conditions merely according to what is perceptible and tangible. The observer notices only the malinvestments which are visible and fails to recognize that these establishments are malinvestments only because of the fact that other plants—those required for the production of the complementary factors of production and those required for the production of consumers’ goods more urgently demanded by the public—are lacking. Technological conditions make it necessary to start an expansion of production by expanding first the size of the plants producing the goods of those orders which are farthest removed from the finished consumers’ goods.” (p. 559)

The parameters of debate in Fed reviews are broad enough to consider Keynesian, monetarist, psychological and real growth theories of the business cycle. A criticism is that they are narrowly drawn and avoid the Misesian theory identifying central banks as the source of malinvestment.

One example is Fuhrer (1994, Boston) who cites the “possibility that output fluctuations affect long-run growth,” noting it is “an idea that dates back to Schumpeter (1939).” Contractions might provide opportunities for firms to make structural adjustments that enhance productivity. Yet John Taylor, cited by Fuhrer, finds the link from fluctuations to growth unpersuasive, since a good deal of restructuring (through “job destruction”) occurs during years when output is at or above potential.”

Von Hayek is termed a “liquidationist,” not an Austrian, by Wheelock (1992, St. Louis), in his survey of classical and Keynesian interpretations of the Great Depression. He writes, “During the Depression, proponents

of the liquidationist view argued against increasing the money supply since doing so might reignite speculation without promoting an increase in real output. Indeed, many argued that the Federal Reserve had interfered with recovery and prolonged the Depression by pursuing a policy of monetary ease. Hayek (1932, 1984), for example, wrote:

“It is a fact that the present crisis is marked by the first attempt on a large scale to revive the economy...by a systematic policy of lowering the interest rate accompanied by all other possible measures for preventing the normal process of liquidation, and that as a result the depression had assumed more devastating forms and lasted longer than ever before.”<sup>16</sup>

Wheelock observed “the liquidationist theory of the business cycle was commonly believed in the early 1930s,” yet “died out quickly with the Keynesian revolution, which dominated macroeconomics for the next 30 years.” The Federal Reserve’s “failure to respond vigorously to the Great Depression,” he concludes, “probably cannot be attributed to a single cause. Each of the explanations discussed in this article clarifies certain points about Fed policy during the Depression.”

Exceptions in reviews that cite Austrians are Humphrey (1982 and 1991, Richmond) in which he argues Austrian economists Ludwig von Mises

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<sup>16</sup> According to Wheelock, “Several key officials shared Hayek’s views. For example, the minutes of the June 23, 1930, meeting of the Open Market Committee report the views of George Norris, Governor of the Federal Reserve Bank of Philadelphia:

“He indicated that in his view the current business and price recession was to be ascribed largely to overproduction and excess productive capacity in a number of lines of business rather than to financial causes, and it was his belief that easier money and a better bond market would not help the situation but on the contrary might lead to further increases in productive capacity and further overproduction.”

and Friedrich von Hayek relied on “the classical doctrine of forced saving to explain the upswing phase of their monetary overinvestment theory of the cycle.” Humphrey avoids the Misesian *malinvestment*, uses the term “overinvestment,” and credits (1982) Henry Thornton for introduction of this doctrine, which “refers to the potential rise in the rate of capital accumulation and hence long-term economic growth owing to the inflation-induced redistribution from wages to profit.” Thornton, he writes, “anticipated a key feature of those modern neoclassical monetary growth models that treat investment as a function of the monetary growth rate.”

Another exception is Leeper (1995, Atlanta). Some economists, he writes, believe “erratic monetary policy plays a substantial role in generating business cycle fluctuations. Among writers before World War II, Irving Fisher (1931), R.G. Hawtrey (1934), Friedrich A. Hayek (1934), Ludwig von Mises ([1934] 1980), and Lionel Robbins (1934) were important contributors to this view.” Leeper observes “monetary policy effects are neither well understood nor easily predicted.”

Humphrey (1984, Richmond) rebuts the Austrian school’s “contention “that monetarists invariably ignore relative price and real output effects in the monetary mechanism.” He writes “monetarists, like Austrians,” stressed these effects. “(M)onetarist and Austrian theories of the business cycle share many of the same or similar characteristics. Because of this, the two approaches should be seen as complementary rather than as competing. The similarity between the two views also

casts doubt on the notion of a unique Austrian view of the monetary mechanism,”<sup>17</sup> he argues.

Despite the Haberler citations, one cannot assume their authors are familiar with Austrian cyclical theories. Humphrey should be credited for presenting an Austrian view although he rejects it. Yet one is forced to conclude that evolution—and intellectual diversity—still has limits. This becomes clearer when comparing Fed reviews with papers written by economists employed by the Bank for International Settlements and International Monetary Fund that examine Austrian cyclical theories.<sup>18</sup>

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<sup>17</sup> For an Austrian reply see Clark and Keeler (1990).

<sup>18</sup> Oppers (2002) cites von Mises: “Austrians find the influence of central banks on monetary aggregates potentially troubling. Attempts of the monetary authority to manipulate the interest rate, they argue, will effect the market for loanable funds, inevitably rendering the plans of consumers and entrepreneurs intertemporally inconsistent.” (p. 6) Borio and White (2003) describe “a much older tradition in business cycle theory” and observe, “This tradition takes root in work by Pigou (1929), Fischer (1932) and the Austrian tradition (eg. Von Mises (1912), Hayek (1933) and Schumpeter (1939) among others.” (p. 26)

## **Austrian Views: The Evolution from Footnotes to Texts**

Austrians Joseph A. Schumpeter (13), Friedrich A. von Hayek (13) and Ludwig von Mises (9) are cited most frequently in text references published in Fed reviews. The frequency of other Austrians cited in Fed review texts are: Gottfried Haberler (8), Fritz Machlup (5), Murray Rothbard (3), Carl Menger (1), Eugen von Bohm-Bawerk (1) Friedrich von Wieser (1), Ludwig Lachmann (1) and Israel Kirzner (1).

Von Hayek, von Mises and Rothbard are introduced in Fed reviews in the same manner as Schumpeter: first, a footnote, and then later, a text reference.

### **Friedrich A. von Hayek**

Two months after the Cleveland bank's *Economic Review* published a footnote reference to Schumpeter (November 1965) the Philadelphia bank's *Business Review* (January 1966) referred to another Austrian-Friedrich A. von Hayek<sup>19</sup>-in a similar manner. The reference to Hayek, the 1974 Nobel laureate, occurs in a footnote to Anderson (1966, Philadelphia):

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<sup>19</sup> Caplan (1999) identifies von Hayek as a "self-designated" Austrian economist. Hayek, "the best known member of the Austrian school," he writes, "expressed unease with certain aspects of modern economics," but viewed his work "s a complement to, rather than a substitute for, the neoclassical approach." Backhouse (2000) identifies von Hayek with a distinct Austrian tradition in the 1930s within a mainstream economics that tolerated a diversity of approaches. For references to von Hayek in speeches by Federal Reserve officials see St. Louis President William Poole (Nov. 28, 2000) and Cleveland President Jerry L. Jordan (Oct. 21, 1999). Dallas President Bob McTeer refers to von Hayek in *Economic Insights* (Vol. 6, No. 4).

“Theoretical analysis as to the role of the money supply has been supplemented by attempts at statistical verification. The most noteworthy, perhaps, is the comprehensive study by Friedman and Schwartz, embracing the behavior of money in the United States for almost a century.”

The reference is to Friedman and Schwartz (1963), which, Anderson writes, led them to the following conclusions:

“First, changes in the money supply have been closely associated with changes in money income, economic activity, and prices. Second, the interrelation between the money supply and economic change has been highly stable. Third, changes in the money supply have often had an independent origin; they did not occur simply in response to changes in economic activity.”

The implications for monetary policy are clear, Anderson writes—  
“regulation of the money supply is the primary road to business and price stability.”

According to Anderson there are two main reasons for the proposal:

“First, of course, is the belief that changes in the money supply are the primary determinant of cyclical and longer-run fluctuations in money income, prices and business activity. Consequently, maintaining a constant rate of growth in the money supply would tend to smooth out these fluctuations. A second reason is the practical difficulty involved in implementing a flexible monetary policy. A time lag of varying length between changes in the money supply and the final effects on the economy makes it extremely difficult to time countercyclical actions

properly. Attempts to do so may intensify instead of mitigate business fluctuations. Hence a constant rate of growth, although not ideal, is considered the most practical method of implementing monetary policy with our present knowledge and institutional structure.”

The paragraph ends with the following footnote reference to von Hayek:

“In a sense, F.A. von Hayek’s theory of “neutral money” in the early thirties was a forerunner of current proposals for a stable rate of growth in the money supply. He contended that a constant “effective money supply” (money supply times exchange velocity) was a prerequisite for economic stability; however, the money supply should be adjusted to compensate for a change in the proportion of trade effected with money and, of course, for changes in transactions velocity.”

Von Hayek’s monetary views were included in a text reference four years later by Spencer and Yohe (1970, St. Louis):

“The monetarists’ view that Government spending financed by taxes or borrowing from the public merely displaces, or “crowds out,” private spending is not a new one. It was, in fact, the dominant view before the Keynesian revolution of the 1930s. Classical economists including Adam Smith and David Ricardo, and neo-classicists including F.A. Hayek and R.G. Hawtrey, found little use for fiscal stabilization efforts.”

Footnote references<sup>20</sup> to von Hayek continued but text references became more common in the 1980s:

Humphrey (1981, Richmond) cites von Hayek against the idea that Keynes was an inflationist:

“The main conclusion of this essay is that Keynes was neither the subtle inflationist nor the extreme nonmonetarist that he is sometimes depicted as being. On the contrary, his writing reveal that he consistently deplored inflation...That antipathy amply justifies F.A. Hayek’s judgment that if Keynes were alive today he would be “one of the most determined fighters against inflation.”

Osborne (1985, Dallas) cites von Hayek on money’s definition:

“The need to complete our definition is especially strong when we try to understand what a monetary system would be like that lacked a central monetary authority (whether king, treasury office, or central bank).”

Osborne notes similar issues are “as difficult as any in economics,” and have been “wrestled with by Knut Wicksell and Friedrich Hayek among others.” He does great justice to the free banking position in a footnote:

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<sup>20</sup>. Footnote references to von Hayek in the era include Bordo (1981, St. Louis); O’Driscoll (1984, 1986, Dallas); Dwyer (1996, Atlanta); Filardo (1998, Kansas City); and Lyons (2002, San Francisco). Bordo (1981) cites von Hayek (1972) on absolute versus relative prices. O’Driscoll (1984) cites von Hayek (1948) on market information lacking in econometrics. O’Driscoll (1986) cites von Hayek’s (1935) argument against stabilizing the price level. Dwyer cites von Hayek (1978) on free banking and finds little evidence free banks were imprudent or reckless in the U.S. (1837-1865). Filardo notes Hayek and Milton Friedman have been among economists considering disinflation’s output costs. Lyons cites Hayek (1945) on “the utilization of knowledge not given to anyone in its totality.”

“Classical liberals would prefer to abolish central banks, and take their chances with private arrangements, even if the additional freedom meant less prosperity or stability—although it is possible that both prosperity and stability would increase along with freedom.”

Hetzel (1987, Richmond) cites von Hayek on Henry Thornton. “Thornton’s work is discussed in some of the classic works in economics.” “Hayek (1939),” he writes, “was interested in Thornton because of the latter’s concept of a modern central bank that can control the monetary base and the money stock. In his introduction to the reprint of *Paper Credit*, Hayek carefully lists the seminal ideas of Thornton.”

Humphrey (1987, Richmond) cites von Hayek (1933) on Univ. of Missouri economist H.J. Davenport (1861-1931), who distinguished between the expansion power of a single monopoly bank versus that of a small competitive bank in a multibank system.”

Schreft and Villamil (1992, Richmond) cite von Hayek on information in their construction of “a theoretical model of a commercial loan market characterized by imperfect information and imperfect competition.” They conclude:

“The model shows that a profit-maximizing lender operating in such a market will choose to price discriminate (or credit ration) by setting an inverse relationship between the loan sizes offered and the interest rates charged. This loan size-

interest rate pattern is consistent with empirical evidence regarding commercial lending. In addition, it is a good example of how, as Friedrich von Hayek argued, the price system can economize on information in a way that brings about desirable results. Hayek (1945, pp. 526-27) noted that “the most significant fact about (the price) system is the economy of knowledge with which it operates, or how little the individual participants need to know in order to be able to take the right action.”

Smith (1999, Atlanta) also cites von Hayek on information:

“A market is said to be fully efficient in an informational sense when prices work as a perfect shorthand for society’s collective knowledge regarding the future as Hayek suggested many years ago.”

### **Ludwig von Mises**

The first reference to von Mises occurs in a footnote to Shaw (1975, San Francisco) on inflation and indexing:

“All prices, taxes, and contracts are indexed in a model of immaculate inflation. However, unstable inflation cannot be made immaculate by indexing. One reason is that unstable inflation involves different rates of response among individual prices to aggregate effective demand. Then there is no neutral index of change in money’s purchasing power. Another reason is that initial costs of indexing are not small: some substantial investment is required in bargaining about precise forms of insurance against the contingency of inflation. Again, unless all contracts are on short term, indexing can increase downward rigidity of

prices and increase the cost, in terms of unemployment, of shifting from higher to lower inflation rates. Finally, it appears that government simply cannot resist the temptation to manipulate indexing for social objectives. Indexing becomes another instrument for aggrandizement of the public sector.”

Shaw acknowledges von Mises’ contribution in a footnote:

“This paragraph comes very close (inadvertently!) to plagiarism of Ludwig von Mises, in his *The Theory of Money and Credit*, English edition, 1935, pp. 406-407. The criticism of indexing had appeared in the German edition of 1924.”

Text references to von Mises started appearing later that decade. Humphrey (1978, Richmond) refers to von Mises and Fritz Machlup on the “development of the expectations theory linking anticipations of future money supplies with the current exchange rate.”

Humphrey (1979, Richmond) notes von Mises rivaled Gustav Cassel “as the principal proponent” of the Purchasing Power Parity doctrine in the 1920’s:

“Prominent among the many competing explanations that have been advanced to account for foreign exchange rate movements in the post-Bretton Woods era of floating exchange rates is the so-called purchasing power parity (PPP) theory...It is not exaggeration to say that the PPP doctrine has attracted the attention of some of the leading monetary theorists of all time, including Thornton, Wheatley, Ricardo, Marshall, Cassel, von Mises, Keynes and Viner.”

Humphrey (1980, Richmond) observes von Mises' contributions (1919, 1923) to monetary policy, like Dennis Robertson's, "have been largely overlooked."

"As early as 1919 von Mises wrote that exchange rates, like the prices of other assets traded on organized markets, "are speculative rates of exchange," that they reflect "not only the present but also potential future developments," and that they respond to news of excessive monetary growth "relatively soon...long before the prices of other goods and services." [8, p. 51] Again, in 1923, (Mises) wrote that the current spot exchange rate "forecasts anticipated future changes in commodity prices," that it is "determined by nothing more than the anticipated future purchasing power attributed to a unit of each currency," and that it adjusts faster than commodity prices to news about future events [8, pp. 28, 31]. Any notion that the asset market view is a recent development is quickly dispelled by a reading of Robertson and von Mises."

Humphrey argues von Mises recognized and discussed all the ingredients of the monetary approach in the 1920s, "and enunciated them even more emphatically and lucidly than Robertson." Both deserve recognition, Humphrey maintains, as "early proponents of the monetary approach" along with Cassel, Hawtrey and Keynes,"

Kiyotaki and Wright (1992, Minneapolis) cite von Mises (1912, 1934) for providing "an early discussion of the threefold classification of economic objects into consumption goods, production goods, and media of exchange. Many objects, including any commodity money, for example,

can play more than one role; but fiat money by definition is only a medium of exchange and never a consumption or production good.<sup>21</sup>

**Murray N. Rothbard:**

The first reference to Rothbard also occurs in a footnote to Hoehn (1981, Dallas) on the gold standard. The first paragraph in Hoehn's essay states:

"Recently, there has been a surprising revival of interest in reestablishment of a gold standard. The gold standard had been widely regarded as a dead issue before the time of the collapse of the Bretton Woods system of fixed exchange rates. In the early 1960s, one gold advocate recognized that his stand was courting the risk "of being classified with the dodo bird."

Hoehn's "one gold advocate" is Rothbard but the fatalistic portrayal is questionable. At the time Rothbard was writing the Minority Report of the U.S. Gold Commission, a panel formed by congressional action. Garner (1985, Kansas City) cites the report in an essay on monetary reform.

Rothbard (1962), the authoritative work on the Panic of 1819,<sup>22</sup> is cited by McCarthy (1984, Richmond) in a footnote. Green and Oh (1991, Minneapolis) engage in a more extensive discussion of Rothbard in a text reference. They explore three intermediation episodes during severe

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<sup>21</sup> Another text reference is Humphrey (1998, Richmond), which cites the criticism of Haberler, Machlup and von Mises of the German Reichsbank during the 1923 hyperinflation.

<sup>22</sup> For a review of Rothbard (1962) see Shaffer (1963) who writes: "Rothbard's work represents the only published, book-length, academic treatise on the remedies that were proposed, debated, and enacted in attempts to cope with the crisis of 1819."

recessions to support their conclusion that “a pattern of legislative or regulatory interference in credit markets...clearly departs from laissez-faire treatment of a market for debt securities.” They find “the political system may be particularly prone to generating such outcomes during macroeconomic recessions” by providing debt relief for heavily affected customers and nonprice rationing for lightly affected customers. “It is noteworthy that such a combination of debt relief and rationing is what some observers, viewing the current U.S. economic situation from an ex post perspective, are calling a “credit crunch.” They write of 1819-21:

“A second historical episode, the two-year-long depression following the Panic of 1819, shows the role of public intervention in approximating an efficient-contract allocation when unenforceability of implicit long-term agreements decentralized competition among intermediaries from achieving efficiency. (Rothbard 1962)

Citing Rothbard’s authoritative work, they continue:

“The 1819-21 depression was marked by a monetary contraction and deflation that greatly increased the burden of nominal debts. In response to this situation, a number of states passed stay laws and minimum assessment laws. In principle, a *stay law* specified only that a period of time had to pass after a debt became due before legal action could be taken to collect it. However, states actually passed laws that made the length of a stay depend on the type of asset that the creditor required for payment...A *minimum assessment law* stated that assets seized in case of default had to be accounted at an assessed value rather than at their market value in determining satisfaction of the debt. These laws tended to specify assessment mechanisms that were heavily biased in favor of

the defaulting debtors. Again, the effect of the law was to permit the satisfaction of debts at considerably less than their contractually specified values in market terms.”

Hetzel (2002, Richmond) cites Rothbard (1996) on the 1920 legislative decision in Great Britain to return to the gold standard at prewar parity. The action was based in part on the assumption gold flows to the U.S. would raise price levels and limit the domestic deflation needed to reestablish parity.

### **Other Austrians**

Early Austrians such as Menger<sup>23</sup> and Bohm-Bawerk are rarely cited. Formaini (2001, Dallas) cites Menger and Humphrey (1983, Richmond) terms Eugen von Bohm-Bawerk (1911), “the celebrated Austrian capital theorist and co-founder of the Austrian School of economics.” Humphrey credits Bohm-Bawerk for enunciating “the neoclassical concept of the interest rate as a real phenomenon immune to monetary control.” He notes the Austrian’s work includes “the standard ingredients of the neoclassical view: the distribution between equilibrium and market rates, the notion of the former as a real magnitude to which the latter eventually

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<sup>23</sup> For footnote references to Menger see O’Driscoll (1985, 1986, Dallas). O’Driscoll (1985) cites Menger (1892) on money’s evolution and notes the “more traditional theory of money emphasizes that money itself is the product of an evolutionary (unregulated) process.” O’Driscoll writes, “The classic presentation of this theory is in Carl Menger (1892).” O’Driscoll (1986) cites Menger (1871) on money’s creation and notes monetary “units of account “are evolved, not consciously created. In terms of its evolution, we can identify a standard only after it has been used for a substantial period of time.” Money “is not the product of an agreement on the part of economizing men nor the product of legislative acts. No one invented it.”

conforms, and the concept of price-induced shifts in loan demand as the equilibrating mechanism that frustrates attempts at interest rate control.”

Later Austrians such as Haberler<sup>24</sup> and Machlup are cited in Fed reviews. Humphrey (1988, Richmond) credits Haberler (1930) for introducing the strictly concave production frontier version into foreign trade theory.” He notes Irving Fisher invented the diagram (1907) to illustrate a problem in capital theory, Enrico Barone (1908) extended it to international trade and Allyn Young (1928) applied it to the closed economy. Humphrey writes:

“In 1930, however, Gottfried Haberler (1930) in his seminal paper on comparative cost, did what none of his predecessors had done. He introduced into international trade theory a strictly concave production possibility curve showing diminishing returns and increasing costs in the production of both goods.” Haberler explained the causes of the curve’s concavity “by invoking the notion of specific and nonspecific factors of production. Specific factors he defined as those tied to a particular industry and suitable to the production of no other good. Nonspecific factors on the other hand are those freely transferable between industries and equally suited to the production of both goods.”

Humphrey (1999, Richmond) notes Haberler was among classical critics of Keynesianism “sniping at it from the sidelines.” He writes, “Eventually these criticisms would culminate in a monetarist counterrevolution that would dethrone mercantilist doctrines and restore classical ones.”

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<sup>24</sup> Other text references to Haberler appear in Dotsey and King (1988, Richmond); Kydland and Prescott (1990, Minneapolis); Leeper (1995, Atlanta); Humphrey (1998, Richmond), Diebold and Rudebusch (2001, San Francisco); and Ludvigson, Steindel and Lettau (2002, New York).

Machlup<sup>25</sup> is cited by Fieleke (Boston, 1969) on the U.S. balance-of-payments deficit, by Halm (1971, Boston) on monetary reform, and by Stahl and Harshbarger (1973, Kansas City) on oligopoly.

### **Conclusion: The Continuing Evolution of a Human Institution**

In 1964, as the Federal Reserve System marked its first half-century, the flagship New York bank's *Monthly Review* published a series of triumphalist essays celebrating a central bank that could do little wrong. One example was the March 1964 essay, "Fiftieth Anniversary of the Federal Reserve System—Immediate Origins of the System," which recounts the panics of 1873, 1884, 1893, 1901, 1903, and 1907:

"In the decades prior to the establishment of the Federal Reserve System, it became increasingly apparent that the country's financial system failed to meet fully the needs of a growing economy. These shortcomings were most dramatically revealed in fairly frequent "money panics."

Later that year, ex-New York president Allan Sproul (1941-56), dismissed monetarism in the *Monthly Review* (November 1964). Sproul attacked Friedmanite critics "who would substitute an invariable formula for fallible human judgment or weak human resolve" in monetary policy's conduct:

“I am willing to wait at least until we have more persuasive arguments that a rigid invariable formula can ride through the continuing changes in the economic environment, without the benefit of human judgment and without causing major errors instead of minor ones.”

Others were unwilling to wait and by decade’s end a debate had broken out in the central bank’s reviews around the conduct of monetary policy. The *Federal Reserve Bank of St. Louis Review* advanced a monetarist critique within the central bank in the late 1960s. St. Louis Fed President Darryl R. Francis spoke for many monetarist sympathizers when he told the Arkansas Bankers Association at Hot Springs in May 1969:

“The recent record of national economic stabilization policy has left much to be desired. For almost five years we have had an accelerating inflation which we have not arrested either for lack of will or lack of knowledge as to how to do it. Uncertainty about the role of the Federal budget and about monetary policy has prevailed. Did the inflation come from the Federal spending the budget deficit, monetary expansion or from some combination? Is the cure for the inflation to be found primarily in budget policy or in monetary policy?”

To err is human. The monetarist critics were willing to admit the Federal Reserve, a human institution, was capable of error. Defenders of Fed policy such as Sproul and Chairman Arthur F. Burns (1970-78) acknowledged the Fed was human but drew the wrong conclusion. The Keynesian theory they defended could no longer provide a plausible

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<sup>25</sup> Craver (1986) and Salerno (1999) identify Machlup with the Austrian school. Other text references to Machlup are in Humphrey (1978 and 1998, Richmond).

explanation for events. That theory collapsed in the double-digit inflation and unemployment of the mid-to-late 1970s.

Parameters were widened, debate occurred in Fed reviews, and a new theory emerged. A decade later, another Fed bank president stepped forward to again critique monetary policy. Minneapolis Fed President Mark H. Willes told a meeting in Atlanta, Georgia in December 1979:

“Nobody is very happy with the conduct of monetary policy. The economy has performed badly, particularly in terms of inflation and large costs that go with it. And the near-term outlook for the performance of the economy is grim. Many critics accuse the monetary authorities of failing to deal effectively with the problems we have faced, and virtually every policymaker admits that, in hindsight, we have made some mistakes that have added to our economic woes.”

President Willes concluded:

“Because we know so little, economists and policymakers should be considerably humbler in their policy prescriptions.”

The rational expectations critics were willing to admit the Fed, a human institution, was capable of error. The *Federal Reserve Bank of Minneapolis Quarterly Review* championed the rational expectations critique within the central bank in the late 1970s. Parameters widened, debate occurred in Fed reviews, and a new theory emerged. The St. Louis and Minneapolis reviews were unique for promoting new theories

(monetarism and rational expectations) termed controversial, even radical by internal critics.

Pride does not lead to humility and a willingness to examine new ideas. Pride leads to triumphalism and sets the stage for human institutions to fail. The idea that Fed monetary policy errors were a contributing factor to the 20<sup>th</sup> Century's Great Contraction—the Great Depression—was once widely rejected within the central bank with the rest of Friedmanite economics. It almost seems quaint today to read Davis (1969, New York):

“The view that “only money matters” or, perhaps more accurately, that “mainly money matters” was the province of an obscure sect with headquarters in Chicago. For the most part, economists regarded this group—when they regarded it at all—as a mildly amusing, not quite respectable collection of eccentrics. The number of serious attempts to grapple with the Friedman view on the role of money until recently has been remarkably small.”

Meltzer (2003), in his biography of the Federal Reserve, devotes 143 pages to the question, “Why Did Monetary Policy Fail in the Thirties?” He is also willing to admit the Fed, a human institution, is capable of error:

“There is no doubt that early in the decline the Federal Reserve knew a major contraction was underway. Whatever its causes, monetary policy could have lessened the decline. At issue here is why it failed to do so.”

In this age of Alan Greenspan as Economic Oracle it has been easy for many to forget the Federal Reserve is a human institution capable of error. Throughout their history, Fed reviews have undergone a process of continuing evolution. One could read of Keynes, George and Veblen in the Fed's first half-century. In the modern era it is also possible to read about Friedman, Robert E. Lucas, Jr., Thomas J. Sargent *and* Schumpeter, von Hayek, von Mises and other Austrians. One no longer has to search only footnotes. Ideas are presented in Fed review text references. The evolutionary process can be seen in the emergence of alternative theories in Fed reviews, including monetarism and rational expectations. Yet despite these developments, the process is stunted and incomplete. Which Fed review is willing to consider non-mainstream theories that question the conduct of monetary policy *today*? Austrian Business Cycle Theory (ABCT) identifies the central bank as the major source of economic fluctuations. To examine ABCT in Fed reviews is to once again acknowledge the central bank is a human institution capable of error. To willfully continue to ignore ABCT is to suggest pride, not humility, reigns.

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