

INTERPRETATIONS OF
THE WICKSELLIAN IDEA

**To Those Who Wished I
Would Have Continued**

PREFACE

Intellectually speaking, a far different person began this masters thesis than ended it. Originally intended, the inspiration of the thesis came from the expectation that this study would be but a forerunner to a Ph.D. dissertation which, given the unexplored importance of its subject matter, potentially at least could have been an important contribution to the history of economic thought. But what was thought to be only a beginning is now also an end. The demise of Ph.D. aspirations, if it need be divulged, is in large part due to the heavy demands of mathematical and statistical technique force-fed down the graduate student of contemporary economics. If these methodological tools were proper to the sciences of human action (purposeful behavior) as they are to the sciences dealing with inanimate objects, the above reason would be an indefensible one. But, in the light of the devastating criticisms of "scientism" penned by both economists and philosophers, the former being in minority and the latter in majority, the "opportunity cost" of graduate study becomes very high indeed. After all, the economics of the neglected method is in large part missed, as is the crucial and stimulating debate regarding methodology itself.

Happily, economics cannot be expected to continue indefinitely its monopoly over method. In many of the most prestigious graduate departments of the United States and England, there presently exist brave and brilliant souls who master orthodox economics as well as praxiological economics. In particular I must mention Lawrence White of U.C.L.A., Donald Lavoie of New York University and Frank Arnold of Harvard. To these persons and the unmentioned, I both tip my hat and offer apologies for my lack of fortitude and struggle with

technique. For, by these persons' contributions as future professors, tomorrow's students of economics will discover and enjoy the beauty of the tight logic, existing and to be found, that in all provides science as reliable as those sciences presently enjoying a correct methodology.

Robert Lee Bradley, Jr.

October, 1979

TABLE OF CONTENTS

	<u>Page</u>
Preface	i
Introduction	1
Chapter One: The Wicksellian Idea	<u>3</u>
1. Bank Policy and Price Level Changes	3
2. The Cumulative Process	5
3. The Natural and Market Rates of Interest	6
4. The Equilibrium Conditions and Recommendation	7
5. The Business Cycle Theory	8
6. Conclusion	8
Chapter Two: Myrdal's Reformulation of the Wicksellian Idea	<u>12</u>
1. The Methodological Contribution	12
2. Condition One: The Yield of Real Capital Restatement	14
3. Condition Two: The Savings-Investment Equality Restatement	15
4. Condition Three: The Price Level Restatement	19
5. Normative Prescriptions of <u>Monetary Equilibrium</u>	21
6. Myrdal's Contribution: Concluding Views	22
Chapter Three: D. H. Robertson: The Wicksellian Eclectic	<u>26</u>
1. The Business Cycle Theory	27
2. Robertsonian Semantics	28
3. The Cumulative Process	29
4. Normative Pronouncements	31
Chapter Four: J. M. Keynes: The Recanted Wicksellian	<u>37</u>
1. <u>A Treatise on Money</u>	37
A. <u>Monetary Equilibrium</u>	38
B. <u>Monetary Disequilibrium</u>	38
C. <u>Normative Implications</u>	41
2. <u>The General Theory</u>	42
A. <u>The Neutral Rate of Interest and the S-I Controversy</u>	43
B. <u>Forced Savings: A Reformulation</u>	44
C. <u>Keynes' Cumulative Process</u>	45
D. <u>Normative Conclusions</u>	46
Chapter Five: Wicksellianism as a Modern Theory of Business Cycle: The Mises-Hayek Contribution	<u>51</u>
1. The Price System and Non-Neutral Money	51
2. Wicksell and Austrian Cycle Theory: The Boom	53
3. From Boom to Bust: The Reversability Contribution	54
4. Wicksell's Neutrality Conditions Revisited	57
5. Time and Expectations in Austrian Cycle Theory	57
6. Normative Conclusions	59

Chapter Six: Interpretations of Wicksell: A Sorting Out	63
1. Agreements With the Wicksellian Heritage	64
2. Near Agreement Within the Wicksellian Heritage	65
3. Controversies Within the Wicksellian Heritage	65
A. Methodological Divergences	65
B. The Macro vs. Micro View	67
C. The Full Employment Assumption	69
D. Business Cycle Theory and Wicksell: Monetary or Real?	71
E. Taming the Cycle: Normative Divergences	72
4. Wicksellianism and Modern Economics	72
Bibliography	77

INTRODUCTION

The knowledgeable historian of thought, Richard M. Ebeling (Graduate Dept., Rutgers University), first suggested to me that the overriding influence of Knut Wicksell in the areas of monetary and business instability was worth detailed study. Dr. Thomas Mayor, graduate professor of economics at the University of Houston and thesis advisor, agreed. It was, after all, Wicksell's investigations into monetary equilibrium that intrigued some of the greatest economic minds of this century—D. A. Robertson, G. Myrdal, J. M. Keynes, L. von Mises and F. A. Hayek—during the tumultuous era of the Great Depression. Yet, to this day, no historian of thought has undertaken the comprehensive study deserved by such a well delineated heritage in such an important area of economic theory. In consequence, this book is intended to serve as a proxy until the definitive history of Wicksellianism is brought forth. But, in any case, the majestic contributions of Wicksell in the above mentioned areas merit a wider and more appreciative audience. In fact, it should be contemplated, as this thesis will attempt to show, that Wicksell is to full employment macroeconomics what Keynes is to full unemployment macroeconomics. It will further demonstrate that Wicksell's beginnings inspired some very important and neglected microeconomic insights in areas that today are reserved for macrotheory alone.

Lastly, as mentioned in the preface, this thesis was intended to be enlarged into a doctoral dissertation. This would have meant the study of important but more minor Wicksellians including other members of the Swedish School—Davidson, Cassel, Lindahl and Lundberg—as well as many other great names in

contemporary economics. But without these figures, it is believed that the four interpretations contained herein provide both an illuminating cross-section of what was debated in decades past under the Wicksellian banner and the necessary foundation upon which future Wicksellians must build.

CHAPTER ONE
THE WICKSELLIAN IDEA

CHAPTER ONE

THE WICKSELLIAN IDEA

Knut Wicksell, in his 1898 work Interest and Prices, ambitiously set out to refine the dominant quantity theory of money and to bridge the gulf then existing between monetary and price theory. Though the quantity theory was "everybody's theory of money,"^{1/} Wicksell felt there was plenty more to be uncovered by both its truths and shortcomings.

Wicksell was a German-reading and -writing economist, thus thoroughly in step with the recent contributions of the schools of Vienna and Lausanne. Language did not prevent him from knowing more than classical economics in other words. He particularly paid tribute to "the development of a real theory of capital" by Jevons and Böhm-Bawerk, while on the monetary plane he regularly cited the insights of "the great master" Ricardo and the Ricardian critic Tooke.^{2/} With these influences, it was the assigned task of Wicksell to merge the two separate areas—money and price—together. It was to be a pioneering effort for, according to the quantity theory, supply considerations of real magnitude were assumed to be independent of changes in the price level.^{3/}

Interest and Prices formally presented the contributions to be discussed below. Some eight years later, in Volume II of Lectures on Political Economy, a refined but largely unaltered restatement appeared, marking an end to Wicksell's treatment of the subject.

1. Bank Policy and Price Level Changes

In an early chapter of Interest and Prices, entitled "The Velocity of Circulation of Money", Wicksell examines recent attempts to explain price level movements. He discusses Marshall's emphasis on bank reserve policy and Nasse's

(and earlier Tooke's) exclusive focus on real factors causing changes in commodity supplies leading to the price instability. But these inquiries, one monetary and one real, did not satisfy Wicksell. Not only was there left unexamined "the mechanism by which this result is brought about", but totally overlooked was the all-important bank discount policy, a policy "always exerting a certain influence on the level of prices, either maintaining or disturbing it."^{4/} From this point, Wicksell became the contributor as well as the critic.

Wicksell attributed early recognition of the influence of bank policy on interest rates to Ricardo and J. S. Mill. In particular, Mill had noticed an increase in notes entering circulation via a lower rate of interest as creating "an artificial increase of the demands for loans", yet believed (as the Banking School) that the new money would eventually leave circulation either as bank deposits or idle cash balances. Thus, Mill concluded, no rise in prices would follow.^{5/}

Wicksell mourned that Mill's inferences from such a fertile insight were so superficial and systematically rethought the causality. He reasoned that the borrower would readily grasp the cheap loan money and either buy commodities that were previously unaffordable, make a cash payment in lieu of credit or, as a producer, finance a reservation demand.^{6/} But most of all, as he would later emphasize, Wicksell saw the lower interest rates as fueling an entrepreneurial boom leading to increased factor market activity.^{7/} The result of these instances, concluded Wicksell, was an increased demand for a decreased supply of goods, both triggering an increase in the price level. As he summarized:

* * * [U]nless the fall in the rate of interest is neutralised by simultaneous changes elsewhere, it must * * * provide a stimulus to trade and production, and alter the relation between the supply and demand of goods and productive services in such a way as necessarily to bring about a rise in all prices.^{8/}

But, qualified Wicksell, changes in the discount rate do not immediately affect prices; only after a disequilibrium process causing supply and demand conditions to shift do price level changes appear. Specifically, the increased demand for capital goods cause these prices to increase. Factor incomes thus swell and, when this money is spent on the now fewer consumer goods, these prices rise also. This is the forced savings idea—the restriction in consumption caused by increased prices which in turn result from factors leaving consumer good for capital good production.^{9/} This scenario—money working through interest rates, which in turn alter the scissors blades of price—is the indirect mechanism of price changes. Being a sophisticated link between monetary and real elements, it provided a needed supplement to the direct effects already embedded in the quantity theory.^{10/}

2. The Cumulative Process

The above, only an outline, is filled in as Wicksell describes the dynamics of the cumulative process. As T. W. Hutchinson has forwarded, this effort was a "dynamic analysis of processes to replace the normal self-equilibrating dynamics of neo-classical theory."^{11/} Indeed, Wicksell, with this contribution, was to break the strait jacket placed on economic theory by Walrasian general equilibrium analysis.

The cumulative process, an analysis prefaced on full employment, occurs when the rate of interest remains artificially low (high) for a "considerable" period of time, "no matter how small the gap".^{12/} Its inflationary effect, briefly described above, "goes on repeating itself over equal intervals of time in precisely the same manner."^{13/} Thus producers again and again bid upward

(downward) factor prices and consequently incomes, which in turn lead to an upward (downward) rise in commodity prices. And with this, a type of inflationary (deflationary) expectation on the part of producers comes into play, having an "effect on supply and demand—clearly the same as that of a corresponding easing (tightening) of credit." (Parenthesis added).^{14/} The sum result has prices continually rising (falling).

The perpetual situation of inflation in Wicksell's analysis is sooner or later countered by banking institutions terminating the easy credit, an action necessitated by reserve depletion. But, powered by "more of the same" expectations, entrepreneurs continue their inflationary factor market actions, fully expecting their final product prices to rise (as before), making the higher costs of borrowing affordable.^{15/} These expectations become adjusted as they are falsified. Eventually, the producers no longer can afford, in light of the cost of money, to pressure prices upward for scarce factor services.^{16/} The inflation then ends.

Wicksell's cumulative process works in both the deflationary and inflationary directions.^{17/} Thus, with both situations accounted for in a framework of real economic activity, Wicksell became the first economist to use "monetary forces * * * to explain the level of aggregate economic activity."^{18/}

3. The Natural and Market Rates of Interest

In the analysis just completed, the somewhat vague notion of an artificial rate of interest was postulated as the stimulant of the disequilibrium situation. Wicksell, in the course of Interest and Prices, provided more clarity by replacing such terms as "easy credit" and "low rates of interest" with his famous

distinction between the bank (or market) rate and the natural (real, ordinary or normal) rate of interest.^{19/} The natural rate, adopted from Böhm-Bawerk, was the rate which reflected the expected yield of capital. It is the rate that would prevail if a barter capital market existed.^{20/} Seen still another way, Wicksell defined it as being the rate which is "neutral in respect to commodity prices, and tends neither to raise nor to lower them."^{21/} On the other hand, the interest rate potentially sparking the cumulative process was bank rate, one reflecting the bank's monetary policy as well as the supply and demand for capital.^{22/} Here, changes in the price level occur when this rate does not equal the natural rate, and the cumulative process is begun.

4. The Equilibrium Conditions and Recommendation

A term attributed to Wicksell that would give rise to a very important debate in economic theory was his concept of "neutral equilibrium" in regard to money.^{23/} Neutrality in Wicksell's system is characterized by the stable price level, the equality of savings and investment, and an interest rate equaling the marginal productivity of capital. The interplay of monetary and real variables is defined as being in equilibrium here. To Wicksell, this not only is the real world counterpart to the Walrasian general equilibrium, but it is also the "ideal position, affording common advantage to the overwhelming majority of the various groups of interests * * *."^{24/} Wicksell, with this normative conclusion, recommends that banking institutions and government officials be "master, not slave, * * * in a sphere of such extraordinary significance as that of monetary influences."^{25/}

5. The Business Cycle Theory

Having completed his explanation for monetary equilibrium and disequilibrium, one could expect Wicksell's business cycle theory to have been an outgrowth of such an analysis. Surprisingly, however, it is not. Rather, cyclical fluctuations in the main are the result of real forces—disturbing alterations in population, technology, discoveries, and the capital stock—rather than monetary.^{26/} Only price—not real—disturbances come from monetary equilibrium. As he stated:

I must first ask leave to exclude from the field of my observations everything that has to do with the influence of monetary and credit systems on crises.^{27/}

It would be left to others to combine monetary disequilibrium with real disequilibrium in the explanation of cycles.

6. Conclusion

In summary, we can see why Wicksell's contributions in Interest and Prices made the book a classic in the post-marginalist and pre-Keynesian era. Its ideas were novel, unrefined, and thus pregnant. Its most central theme—monetary equilibrium—was perceived by many as significant to economic stability. In time, a bevy of theoreticians spanning decades and schools would rework and reinterpret his ideas during a period one participant would fondly call "the years of high theory".^{28/} The tracing out of these interpretations of the Wicksellian idea will constitute the remainder of this book.

Footnotes:

1/ Mark Blaug, Economic Theory in Retrospect (Homewood, Illinois: Richard D. Irwin, Inc., 1962), p. 557.

2/ Knut Wicksell, Interest and Prices (1898) trans. by R. F. Kahn (London, 1936; reprinted New York: A. M. Kelly, 1965), pp. xxiii-xxv.

3/ I. H. Rima, Development of Economic Analysis (Homewood, Illinois: R. D. Irwin, Inc. 1972), p. 246.

4/ Interest and Prices, op. cit., pp. 79-80.

5/ Mill quotation and discussion from Interest and Prices, op. cit., pp. 85-88.

6/ Ibid., p. 88.

7/ Ibid., p. 106. The new money and credit, as Wicksell recognized, went to producers and not consumers under the existing institutional structure.

8/ Ibid., p. 89.

9/ Lectures on Political Economy, 2 volumes, 1901 and 1906 (New York: MacMillan Co., 1934), Vol. II, pp. 200-201. Schumpeter has credited Wicksell with presenting the already existing concept in a "larger context and with a new emphasis". Schumpeter, History of Economic Analysis (New York: Oxford University Press, 1954, 1976), pp. 1115-1116.

10/ Blaug has pointed out that this contribution, like the forced savings idea, was more a "careful restatement" than a pathbreaking one. Thornton, Mill and, to a lesser extent, Marshall are credited in this regard, though Wicksell "was the first writer systematically to develop the implications" of the indirect mechanism. Economic Theory in Retrospect, op. cit., p. 560.

11/ Hutchinson, A Review of Economic Doctrines (Oxford: Clarendon Press, 1953), p. 244.

12/ Interest and Prices, op. cit., p. 120.

13/ Ibid., p. 95.

14/ Ibid., p. 96.

15/ Ibid., p. 97. Also, see Wicksell's Lectures on Political Economy, Vol. II (London: Routledge & Kegan Paul Ltd., 1906, 1935), p. 185. Blaug, citing J. R. Hicks, has analyzed the fundamental nature of producers having expectations of unitary elasticity. In particular, it is the postulate that makes the instability cumulative! If, contrarily, the entrepreneurs had static expectations, reacting to

the initial changes (the disequilibrium situation) as the exception and not the rule, their actions would be equilibrating and the cumulative process would be stymied. Blaug, Economic Theory in Retrospect, op. cit., pp. 567-568.

16/ Interest and Prices, op. cit.

17/ Ibid., p. 111.

18/ Blaug, Economic Theory in Retrospect, op. cit., p. 567.

19/ Wicksell thinks of "the rate of interest" as "a certain level of the average rate of interest" in attempting to simplify the myriad of real world interest rates into a compact figure for theoretical brevity. (Interest and Prices, op. cit., p. 120). This is somewhat suspect, particularly when he uses a barter model to define the natural rate of interest. See Blaug's criticism, Economic Theory, op. cit., p. 562.

20/ See Interest and Prices, op. cit., pp. 102-104; Lectures on Political Economy, op. cit., p. 193; and Selected Papers on Economic Theory (Cambridge: Harvard University Press, 1958), pp. 82-83.

21/ Interest and Prices, op. cit., p. 102.

22/ Ibid., pp. 95, 120. Unfortunately, Wicksell could not modify the bank rate to take into account what later Fisher would introduce as the "price premium". If he had, three, and not two, rates probably would have had causal significance for him. See Blaug's "Wicksellian" refinement, Economic Theory in Retrospect, op. cit., p. 563.

23/ Hayek points this out in Prices and Production (New York: Augustus M. Kelley, 1931, 1967), p. 129. Wicksell refers to "neutral" in Interest and Price, op. cit., pp. 101-102. Wicksell dealt with another meaning of the non-neutrality of money idea when he recognized that prices change non-proportionally. Lectures on Political Economy, op. cit., p. 195. This microeconomic insight would remain unanalyzed by him.

24/ Ibid., p. 4.

25/ Ibid.

26/ "The Enigma of Business Cycles", Interest and Prices, op. cit., pp. 231-232.

27/ Ibid., p. 233. Wicksell would be just one of many with a real theory of the trade cycle. Spiethoff before and Cassel and Schumpeter after him shared an emphasis which began a stream of analysis which later such theoreticians as A. Hansen and P. Samuelson would further. See Gottfried Haberler, Prosperity and Depression (Lake Success, New York: United Nations, 1946), pp. 72-82.

28/G. L. S. Shackle, The Years of High Theory (Cambridge: Cambridge University Press, 1967).

CHAPTER TWO

MYRDAL'S REFORMULATION OF THE WICKSELLIAN IDEA

CHAPTER TWO

MYRDAL'S REFORMULATION OF THE WICKSELLIAN IDEA

Gunnar Myrdal described his work in Monetary Equilibrium as "imminent [in] nature in so far as I * * * take over in the beginning the fundamental features of Wicksell's monetary theory and * * * develop my own arguments under the assumption of the fundamental correctness of his explanation."^{1/} Such a sympathy as this characterized the intellectual (as well as geographical) brotherhood of the post-Wicksell members of the "Swedish School".

Historians of economic thought have hailed Myrdal's 1939 work for its explicit and systematic treatment on the dynamic elements of equilibrium and disequilibrium. Certainly Wicksell's cumulative process was an exercise in dynamics, yet Myrdal felt the "stationary state" contrast of Wicksell highly diluted the insights of Interest and Prices. But, before we can appreciate this criticism of Wicksell's methodological framework and the consequent reconstruction of monetary equilibrium, Myrdal's positive contributions for economic methodology should be examined.

1. The Methodological Contribution

In an attempt to bring Wicksell's theory closer to practical experience, Myrdal extended the common notion of instantaneous analysis at points of time to a series of points in time, each logically following the other. He described this as "period analysis" in contrast to "instantaneous analysis". Great importance was attached to the former since "mutual adjustments * * * take time and * * * the time order in which they occur is decisive for the outcome."^{2/} Myrdal identified uncertainty as the source of this emphasis for, without it, all

period by period adjustments could be assumed to have already taken place.^{3/}

From the above methodological defense of period analysis, Myrdal made his most remembered contribution to economic analysis—the ex ante and ex poste perspectives of economic action.^{4/} Myrdal himself offered this as "probably the chief contribution of this essay * * *."^{5/} Ex ante is defined as the "anticipations, calculations and plans driving the dynamic process forward." Ex poste is the "looking backward on a period which is finished."^{6/} Thus there are the prospective and retrospective elements of economic action that must be studied separately to avoid ambiguity, a notable point since all explanation must "refer to a point of time at which they are calculated."^{7/}

Myrdal's stated objective, as above mentioned, was to tailor Wicksell's contributions to fit real world observations. Indeed, for him, "abstract economic theory [is] a rational complex of questions to be put to the factual material to be observed."^{8/} But historical understanding and illustration were not the essence of Myrdal's Wicksellian reformulation; more strongly, the methodological desirum of modeling, quantitative estimation and testing was made explicit.^{9/} Then, as today, the fashion of searching for statistical correlations towered over the purely "common-sense" interpretation of the earlier economists within the Classical School.

After spelling out his methodological views, Myrdal embarked upon his central task of reformulating the ideas of Wicksell. Myrdal classified Wicksell's prerequisites for monetary stability as being where (1) the money rate of interest equals the natural rate of interest, (2) the supply and demand of savings are identical, and (3) the general price level is stable. In such a world, believed Wicksell, money would not adversely affect the rest of the economic system and

the calm of barter could be enjoyed. This conclusion under the above three conditions would be the focus of the remainder of the most technical work of Myrdal's career.

2. Condition One: The Yield of Real Capital Restatement

Myrdal yearned to give empirical substance to Wickcell's highly abstract concepts. Concerning the first condition of monetary equilibrium, he began by trying to give Wickcell's natural rate of interest quantitative meaning. This was very thorny, as Myrdal himself acknowledged, but his scientific outlook required that "very crude approximations" be formulated over "none at all."

To ideally find a measure of the yield of real capital, Myrdal postulated a world containing a single factor of production, a single final product, fixed relative prices, a given interest rate, a stable unit of account, and observable and uniform entrepreneurial expectations. Only here would we, without approximation, know the size of the natural rate of interest. But, realizing the tangential nature of such a world, weights were employed by Myrdal as approximators of the important determinants of the figure.

To restate the first condition of monetary equilibrium, Myrdal formulated three key equations:

- (1) The market rate of interest equation:

$$i = \frac{e'}{c'} = \frac{e''}{c''} = \frac{e'''}{c'''} \dots \text{ where } \begin{array}{l} i = \text{the money (market) rate of interest} \\ e = \text{Firm's net return, and} \\ c = \text{Firm's value of existing real capital.} \end{array}$$

- (2) The natural rate of interest equation:

$$y = \sum_{i=1}^n \frac{e_i}{r_i} \dots \frac{e_n}{r_n} \text{ where } \begin{array}{l} y = \text{the natural rate of interest or the} \\ \text{"yield of existing real capital",} \\ e_i = \text{net return of firm } i, \text{ and} \\ r_i = \text{the cost of reproducing real capital} \\ \text{for firm } i. \end{array}$$

$$i = y_2 = \frac{B - (M + D)}{R_1} \text{ . where } i = \text{the money (market) rate of interest}$$

y_2 = the natural rate of interest
 B = the present value of returns
 M = the present value of costs
 D = the change in capital-values, and
 R = the cost of reproducing real capital^{11/}

Myrdal follows his formulas with much discussion concerning the inherent difficulties of the above estimations, in addition to those mentioned above. In particular, the above equation (#3) by itself is indeterminate since we need the profit equilibrium conditions to get y , and to do this we need to find the equilibrium of the capital market. This is to be found in the second condition of monetary equilibrium. Thus, we find that the first condition depends on the second condition of monetary equilibrium for its determination. But, quantitatively notwithstanding, what the third above equation postulates for monetary equilibrium is that, for all business concerns, profits and costs mesh in such a way that all expectations of investment gain or loss disappear.^{12/} Entrepreneurs simply respond steadily to depreciation, and, therefore, any tendency toward a cumulative process is aborted.

3. Condition Two: The Savings-Investment Equality Restatement

This section is at once the most fundamental and difficult of the book.^{13/} As Myrdal earlier pointed out, for the first condition to be determinate, the second condition must be its foundation. This is because the latter condition provides the crucial profit margin for the former.

Myrdal recognized his difficult task of revising the condition since Wicksell "never really defined what he meant by saving and investing * * *."^{14/} But, obviously, conjectured Myrdal, Wicksell could not have thought savings was investment in real capital since a definitional equality between savings and

investment occurs making any cumulative process impossible. Rather, the two must stem from foreign sources, thus allowing the divergence. As an example, Myrdal traced an increase in savings which does not, as sometimes assumed, lead to increased investment since such an initial act would hurt consumption and, thus, incomes. His reasoning behind this result was as follows: beginning with an increase in savings, consumption demand is lowered forcing consumer prices downward. These price signals, with interest rates constant and "a number of inflexible prices", lower profit margins and capital values. Thus, investment is curtailed and a consequent drop in incomes ensues.^{15/}

With the above analysis, Myrdal was left with a definition of savings as "that part [of income] not used in the demand for consumption goods."^{16/} With this definition, savings was clearly differentiated from investment, a distinction that Myrdal recognized as "the essence of the modern monetary theory which starts with Wicksell."^{17/}

Myrdal, by use of examples, reformulated the second condition of monetary equilibrium as the equality between savings and total value-investment. The latter term is defined as gross real investment plus appreciation minus depreciation, or

$$S = R_2 + A - D \quad \text{where}$$

S = total savings
 R_2 = gross real investment
 A = appreciation, and
 D = depreciation.

As an alternative definition, one preferred by Myrdal as being "more natural", this equation can be slightly modified to state:

$$R_2 = W = (S + D) \quad \text{where}$$

R_2 = gross real investment,
 W = "free capital disposal" or a dynamic version of the older "wage-fund" concept,
 S = savings, and
 D = depreciation - appreciation.^{18/}

The above ex ante magnitudes are used in a series of examples by Myrdal to clarify his conditions of equilibrium and disequilibrium. For instance, imagine, along with Myrdal, that entrepreneurs perceive a more optimistic future, but that capital values remain unchanged by an increase in the market (money) rate of interest. Net returns are higher than before, pushing up incomes. Postulating unchanged consumption, the extra income goes to savings, so we are left with a situation of savings being greater than investment. But, Myrdal concluded, monetary equilibrium comes about since the savings are " 'invested' in an increase of appreciation and decrease of depreciation."^{19/} Thus, in the formula $R_2 = (S + D)$, S goes up and D goes down to return to the equilibrium position existing on the eve of the postulated change.

If we modify the above scenario to not have the interest rate rise to choke off the optimism, in addition to the counter-movements of S and D, we have an increase in R_2 in consequence to the higher profit margin. The Wicksellian cumulative process then occurs with inflation as factor prices are bid up, and these increased factor incomes drive up consumer prices in turn. Further, the price rise is "accelerated" as the capital good intensity reduces the supply of consumer goods.^{20/}

A similar instability occurs when, from an equilibrium situation, a fall in the money rate of interest occurs. R_2 would increase in this example and not be countered by an increase in (S + D), thus triggering the instability.^{21/}

A final and highly important situation, one "often discussed in the literature", is postulated by Myrdal—an increase in savings. Here, stability is upset since R_2 decreases (as discussed above), yet free capital disposal (W) does not.^{22/}

The above imaginary sequences of Myrdal characteristically begin from a

full employment position of monetary equilibrium, as Wicksell did in Interest and Price. But, reflecting the tenor of the day (1932), Myrdal proceeded to touch all bases by applying his assumed disturbances, particularly changes in saving, to a depression situation. He wanted to see, "how far a primary change augments or diminishes an existing deviation from monetary equilibrium."^{23/} Regarding savings, Myrdal concluded that an increase worsens and decrease lightens the depression. This reasoning reflected a pro-consumption bias following the reasons discussed above and the postulate of "a number of inflexible prices."^{24/}

The emphasis given to savings above is furthered when Myrdal exposes an assumption qualifying his normatively important conclusions regarding changes in savings in a depressionary stage. The assumption was that the banks be able to meet all demands for credit.^{25/} Myrdal was aware of a group of theorists who saw credit as scarce in the depression and alleviated by stronger decisions to save. He admitted this "might mitigate the depression", but only as a "counter-tendency" to the damage done by the retarded consumption.^{26/} Also, the increased savings might not be lent out since the banks could be experiencing liquidity difficulties and general pessimism.^{27/} Thus, Myrdal did not change his position regarding savings in a downturn in spite of his qualifying assumption.

In dealing with a restatement of Wicksell's second condition for monetary equilibrium, Myrdal's intention was to "make the Wicksellian theory workable".^{28/} So far, Myrdal has given us $R_2 = W = (S + D)$. Thus, there remains to identify a measure of the symbol's real world counterparts and ascertain estimations of monetary instability.

Identifying real investment (R_2) is seen as not "encounter[ing] great difficulties". Repair and maintenance expenses are not to be included and only

ex ante estimations are to be used.^{29/}

Savings (S) and the anticipated change in capital value (D) is more difficult to ascertain in practice, since a measure of depreciation minus appreciation is imperfectly represented by its best proxy, amortization. But, the errors largely could cancel so that (S + D) could be effectively compared with R_2 .

The second condition for monetary equilibrium means, in the final analysis, that "gains and losses for the economy as a whole should be zero." Deviations from this signal a cumulative tendency away from this and can be approximately measured by the amount gains and losses regarding revenue/cost and investment. In the downward phase, revenue and cost gains would be negative while actual investment cost would be less than anticipated cost. The opposite would be the case in an upward, inflationary phase.^{30/} A weighted macro summation of these indicators would be the estimate of monetary disequilibrium, one would imagine. But Myrdal, after specifying some problems in such estimating, modestly concluded that we "must leave unsettled—how Wicksell's theory may be related to reality by restating his equilibrium formulas in observable and measurable terms."^{31/} However, he recognized the positive nature of the chapter's analysis, one that pointed out both the assumptions and "present shortcomings" in Wicksell where no one had done so before.

4. Condition Three: The Price Level Restatement

Wicksell's third condition for monetary equilibrium was that the price level be stable. In the opinion of Myrdal, however, "Wicksell was unable to furnish a real proof of this proposition" and had to resort to "sentiment and * * * normative, a priori, intuition."^{32/} The reason for this, according to Myrdal, was that

he never properly grounded the first two equilibrium conditions to make the case regarding the third.

The key query to Myrdal in this section was whether the first two equilibrium conditions could be fulfilled yet the price level not be constant. His answer was in the affirmative, provided the "untenable" qualification of uniform relative price changes was the case.^{33/} Thus, any movement of absolute price is compatible with monetary equilibrium so long as any needed relative price shifts could occur. But, sticky prices complicate the issue. It is here the duty of the monetary authorities to "adapt the flexible prices to the absolute level of the sticky ones" to combat instability caused by these price rigidities.^{34/} This has the result of greatly narrowing the range of price level movements compatible with monetary equilibrium.

The third condition is not to be formalized by Myrdal to define price movements akin to monetary equilibrium. This required that prices be weighted according to both their "stickiness of reaction" and "relative importance in the calculation of profitability by entrepreneurs and consequently in the volume of real investment."^{35/} This, admitted Myrdal, was hazy (stemming from, among other things, anticipation) and "raise[d] more problem than it solve[d] yet had to be done."^{36/}

Along with price rigidity, there is the disturbing element of monopoly pricing that also required the more competitive prices to proportionally be changed. In order to avoid a downward Wicksellian process, the central bank would need to ease credit conditions in this case.^{37/} The rise in the price level would restore equilibrium although an amount of unemployment would remain, a consequence of the case where labor demands constitute the monopoly prices.^{38/}

In conclusion, Myrdal's reformulation emphasized that mere study of the price level was insufficient to determine the presence or absence of monetary equilibrium. Relative prices, too, were important and had to stand in a proportionate manner; even if bank policy intervention was needed to endure the instability created by rigid and monopoly prices.

5. Normative Prescriptions of MONETARY EQUILIBRIUM

As Myrdal noted, monetary equilibrium all along has been employed as a normative concept as well as a theoretical one. And, normatively speaking, the goal of this equilibrium has been the desire "to eliminate completely or at least to mitigate the 'business cycle'".^{39/}

The exact means by which the above is to be carried out by the banking community is less straightforward than the end itself. This results from a "field of indifference" where "there can be certain systematic shifts of credit conditions relative to each other * * * without disturbing the equilibrium formulae."^{40/} Myrdal emphasized as a general rule adopting capital values (C_1) to the cost of producing real capital (R_2) rather than the Wicksellian prescription of stabilizing the general price level. Stabilizing the cost of real capital, Myrdal stated, would be impossible while to do the same to capital values would "plunge the economy continually into Wicksellian process" since the former (R_2) would have to change anyway.^{41/} Thus, we find Myrdal pointing out the "theoretical conflict * * * between business stabilization and price stabilization."^{42/} Myrdal had certainly differentiated his product from the more orthodox position of price stability espoused not only by Wicksell himself, but the influential Irving Fisher as well.

6. Myrdal's Contribution: Concluding Views

Along with Eric Lindahl, Gunnar Myrdal is recognized as an heir to the Wicksellian tradition within the "Swedish School".^{43/} But the novelty and importance of the ideas in Monetary Equilibrium is not a decided question within the profession. At the polar extremes are F. A. Hayek, who claims that all that is good in Myrdal is to be found in Lindahl,^{44/} and G. L. S. Shackle, who describes Monetary Equilibrium as a "remarkable and in some respects as successful an explanation of the variations of general output as Keynes's" while also being an advance in monetary theory "as important as that of Wicksell."^{45/}

Myrdal himself admitted in the final chapter that his analysis "ha[d] been more successful in discovering than in solving open problems."^{46/} One can surmise that by this he meant the enigmas associated with empirical estimations of the equilibrium conditions and the choices within the indifference field regarding policy. Yet Myrdal's beginning was not to be followed up. Myrdal himself became more concerned with methodology, international problems and poverty. Potential followers in the tradition of Monetary Equilibrium were no doubt taken by the contagious ideas of the 1936 Keynes. Thus, Myrdal's beginning was also an end. Others in the Wicksellian tradition would travel different roads, though the destination of normative recommendations for monetary equilibrium would be the same.

Footnotes:

^{1/} Gunnar Myrdal, Monetary Equilibrium (New York: Augustus M. Kelley, 1962, 1939), p. 31. This book was first printed in 1931 in Swedish and later appeared in German in 1933. The English edition came five years later. Ben Seligman has remarked that Myrdal's Swedish colleagues were "indignant that his position * * * shifted so markedly" in this period. However, we will examine only his most mature views as expressed in 1939. Ben Seligman, Main Currents in Modern Economics (Toronto: The Free Press of Glencoe, 1962), p. 608.

^{2/} Monetary Equilibrium, op. cit., pp. 43-44.

^{3/} Ibid., p. 45.

^{4/} Shackle goes so far as to state, "For the first time, an economic theory was to be based on men's imaginative construction of an unknown future. * * * Thus the view of economics as a human counterpart of celestial mechanics was being abandoned." G. L. S. Shackle, The Years of High Theory (Cambridge, U.K.: Cambridge University Press, 1967), p. 98.

^{5/} Monetary Equilibrium, op. cit., p. 47.

^{6/} Ibid., p. 46.

^{7/} Ibid., p. 45.

^{8/} Ibid., p. 47.

^{9/} Ibid., pp. 211-212. He does, however, warn about the pitfalls associated with "naive empiricism", a methodology he associated with the institutionalists. Ibid., p. 209.

^{10/} Ibid., p. 79.

^{11/} Ibid., pp. 68-70. These magnitudes are estimated by the persons involved from the ex ante perspective.

^{12/} Ibid., p. 70. Also see The Years of High Theory, op. cit., p. 110.

^{13/} Regarding the former assertion, Shackle has written: "* * * there is in Myrdal's book an illustration of something occasionally to be seen in books which propose a novelty, the existence of a focal chapter or part, an 'engine room' which contains the power of the whole argument. * * * In Monetary Equilibrium we have chapter IV." The Years of High Theory, op. cit., p. 124.

^{14/} Monetary Equilibrium, op. cit., p. 88.

^{15/} Ibid., p. 108.

^{16/} Ibid., p. 90.

^{17/} Ibid. The "saving-investment controversy" is, of course, the most significant outgrowth of Wicksell's contributions from the modern perspective. We will emphasize this during the course of the paper.

^{18/} Ibid., p. 97.

^{19/} Ibid., p. 96.

^{20/} Ibid., pp. 102-104. This last price rise factor is, although (like Wicksell) Myrdal does not use the term, "forced savings".

^{21/} Ibid., p. 105.

^{22/} Ibid., p. 106.

^{23/} Ibid., p. 107.

^{24/} Ibid., p. 108. One should notice the remarkable similarity of these conclusions with the 1936 Keynes. Shackle has commented that "In Keynes and Myrdal, in the General Theory and Monetary Equilibrium, we see * * * two writers creating one and the same theory by mutually independent and simultaneous work." The Years of High Theory, op. cit., p. 126.

^{25/} Monetary Equilibrium, op. cit., p. 109.

^{26/} Ibid., p. 110.

^{27/} Ibid., p. 111.

^{28/} Ibid., p. 125.

^{29/} Ibid., p. 114. Ex poste, one would always find equality between invested capital and real investment since bookkeeping procedures are used in this way. See pp. 116-118.

^{30/} Ibid., p. 123.

^{31/} Ibid., p. 124.

^{32/} Ibid., pp. 126, 128.

^{33/} Ibid., p. 133. Myrdal seemed to have the Wahasian equations in mind when he spoke of relative price equilibrium.

^{34/} Ibid., pp. 134-135. How the banks would do this is not discussed.

^{35/} Ibid., pp. 136-137.

36/ Ibid., p. 138.

37/ Ibid., p. 148.

38/ Ibid., pp. 150-151.

39/ Ibid., p. 178.

40/ Ibid., p. 158.

41/ Ibid., p. 193.

42/ Ibid., p. 191.

43/ Mark Blaug, Economic Theory in Retrospect, op. cit., p. 564.

44/ As conveyed in private conversation.

45/ The Years of High Theory, op. cit., p. 89.

46/ Monetary Equilibrium, op. cit., p. 204.

CHAPTER THREE

D. H. ROBERTSON: THE WICKSELLIAN ECLECTIC

CHAPTER THREE

D. H. ROBERTSON: THE WICKSELLIAN ECLECTIC

Dennis H. Robertson has rightfully been described as the "true eclectic" whose monetary and trade cycle theory was "essentially an amalgam."^{1/} In his work, one finds the impressions of Böhm-Bawerk, Marshall, Keynes, Cassel, Pigou and Schumpeter. But, rather than being an Austrian, Keynesian or neo-Classical School economist, Robertson, if anything, was simply a neo-Wicksellian. We may define a neo-Wicksellian as one who interlaces monetary and real elements in explaining features of the business cycle.^{2/}

Specifically, one finds in Robertson the capital theory of Böhm-Bawerk (via Cassel), partial equilibrium analysis as systematized by Marshall, Schumpeter et al.'s real theory of the trade cycle, Keynes' terminology and concepts, Myrdal's before-after classification, and the "forced savings" essentials of Wicksell. In the cases of Myrdal and Keynes, Robertson also showed originality by anticipation; for the rest, the influence was clearly present, though not always acknowledged.

Robertson, like Wicksell, gave center stage to the ability of banks to manipulate savings-investment decisions in promoting aggregate instability. His analysis, methodologically speaking, also paralleled Wicksell's by employing the "step by step analysis", an effort representing, in Haberler's estimation, "a clear step in the right direction of a truly dynamic analysis."^{3/} As Robertson once wrote, "* * * some conception of a lag still seems [necessary to] protect against the peril of confounding causes with results, and processes of change with states of abnormality."^{4/} Thus, Wicksell's cumulative process would find a place in Robertson's scheme.

1. The Business Cycle Theory

Robertson's business cycle theory, as Wicksell's, is of distant interest as compared to his analysis of the interplay of monetary and real forces spawning disequilibrium. After all, as cycle theorists, Wicksell borrowed almost entirely from Spiethoff and Robertson from Cassel. It was rather the analysis of the cumulative process that gave Wicksell immortality of a theorist and Robertson a coveted discipleship. But, before Robertson's dynamics are interpreted, his trade cycle thoughts should be examined.

The eclecticism of Robertson most clearly surfaces when he proffers his analysis of boom and bust. Along Schumpeterian lines, he identifies the boom with "numerous errors of judgment and forecast" on the part of the entrepreneurs which lead to an "artificial lengthening of the period of production."^{5/} Yet he also emphasizes that "swings in the value of money are bound up with roughly similar swings in output, employment, and consumption", though balking at systematically separating cause and effect between these monetary and real elements.^{6/} Irving Fisher's fashionable view of the time is in evidence here. But further, Gottfried Haberler, in the classic Prosperity and Depression, identifies other Robertsonian cycle strands—psychology, over-investment via the acceleration hypothesis, the "gluttability of wants", and under-consumption.^{7/} On the whole, however, Robertson took pains to identify himself with the camp stressing real factors. As he makes clear on the opening page of his most mature work, Banking Policy and the Price Level, "I hold that far more weight must be attached than is now fashionable to * * * certain real, as opposed to monetary or psychological, causes of fluctuations." So, once again, a similarity to Wicksell emerges: a real theory of the business creeping in at the eleventh hour to

overwhelm an analysis centered on monetary disequilibrium. (This analysis of monetary disequilibrium will be examined later.)

2. Robertsonian Semantics

Before one understands Robertson's schema of the cumulative process, his most peculiar and characteristic terminology must be studied. Its purpose, as one interpreter has pointed out, was to "underscore the differences between the savings and investment processes."^{8/}

Instead of adopting the ordinary terms of savings, investment and forced savings, the terms lacking, stinting and splashing are coined.^{9/} Briefly, lacking, his key term, was the difference between the value of one's income and his consumption of the same period.^{10/} One is tempted to equate lacking with saving, but Robertson distinguishes between the two by allowing changes in the purchasing power of money to alter real from nominal magnitudes. For instance, if, out of an income of \$100, one spends all of it, but an increase in price dilutes its buying power by 20%, the person is lacking \$20, yet saving nil. (The contrary case of a deflation causing the opposite would result in an act of dislacking). The adjective "automatic" is used in these examples to differentiate between such exogenous influenced results and the ordinary case of simple savings (dissavings) which is labeled "spontaneous" lacking (dislacking).^{11/} Automatic Stinting results when an increase in prices dilutes planned consumption, viewed from the value of money at the time of its receipt.^{12/}

Automatic lacking (dislacking) is broken up into two branches, both involving a consumption expenditure which is altered by outside influences working to change the value of money. Automatic splashing constitutes the

opposite case where consumption is heightened (as prices fall, giving money more purchasing power) during the interim between when the money is received and its expenditure planned and when the actual purchases take place.^{13/}

Forced Saving, a term freely used in Robertson's earlier writings,^{14/} is now found buried in three sister categories within his new semantics. Fritz Machlup has praised Robertson's rigor by calling these new terms "the sharpest set of tools for the dissection of some sorts of forced savings [ever penned]".^{15/} There is:

- (1) Automatic Lacking (as defined above).
- (2) Induced Lacking (or Induced Hoarding), which is the response to higher prices of holding a large cash balance.
- (3) Secondary Savings, which results from the increased incomes (and thus savings) of the entrepreneurs benefitting from the bank's money and loan policies.^{16/}

3. The Cumulative Process

The above discussion of forced savings, albeit in different cloth, leads us to Robertson's mature analysis of the cumulative process, an effort begun in his 1926 book, Banking and the Price Level. Earlier writings had spoken of boom and bust in purely real terms and monetary induced forced savings, but never was an interrelationship between the two explained. But, with this book, he now created an effort highly comparable to Wicksell's effort of thirty years before.

The cumulative process begins, as before, on a real note. The spark is "a large and discontinuous increase in the demand for Short Lacking".^{17/} This results from either a drop in costs, an increase in final demand or a rise in the

value of goods received in exchange for the firm's product.^{18/} This is the boom. Without an increased supply of lacking to meet the new demand, prices rise and a shortage of circulating capital simultaneously occurs.^{19/} This upward price movement is aggravated by the need for more loans by businessmen (from the inflation of costs), the lengthening of the structure (or average period) of production caused by merchants' anticipations of higher selling prices, and dis-
hoarding by the public and entrepreneurs.^{20/}

As with Short Lacking and Circulating Capital, Long Lacking and Fixed Capital play a noteworthy role in the cumulative process. Acquiring instruments becomes preferable to hoarding by investors constituting a "discontinuous demand increase."^{21/} The demand for Long Lacking, like its Short Lacking counterpart, outraces the supply.

Robertson, in the course of his investigation, makes the observations that "a modern banking system creates * * * money * * * by way of loan to the business world."^{22/} In this connection, he goes so far in one essay as to adopt the Wicksellian terms of the actual (market) and natural rates of interest. When the former rate is below the latter, prices rise until the gap is closed and vice versa.^{23/} But the link between monetary policy and the demand for lacking by businessmen is finally secured by Robertson when he admits that an increase in the supply of lacking can come about to meet the demand pressures by "extorting it from the general public through the multiplication of currency."^{24/} This pregnant idea, unfortunately, is not treated centrally and discussed only in relation to price level changes. The reader is left wondering if Robertson's cumulative process depends only on real causes or both real and monetary.

The boom turning to bust is identified by Robertson as when it is

recognized that there is a shortage of capital or amounting to the same thing, the supply of savings has been miscalculated in the upward direction. The banking system, strained by the demands of business and not increased production costs or decreased demand for factors, signals this phenomenon.^{25/}

Though certainly infatuated with key bits of causality between monetary and real elements, one feels there should be more. The obvious connection between the increase in demand in Short and Long Lacking and bank inflation lowering the market rate of interest is implicitly recognized at best. For instance, why was there an increased demand by lacking and what misled the entrepreneurs into overestimating the supply of lacking? And though it was recognized that the output of consumer and capital goods in the cycle was of a "marked difference",^{16/} Robertson fails to deploy his sophisticated capital theory with his "forced savings" analysis for explanation. This in itself was a step backward from Wicksell. Robertson's eclecticism may have, in all, prevented him from more precisely coming to grips with such fundamentals.

A methodological note is in order. Robertson used concepts in the above schema that he had no use for empirically speaking. The natural rate of interest is a case in point.^{27/} In fact, empirical verification or falsification of his Wicksellian interpretation is never even attempted or suggested. As Schumpeter put it: "Robertson worked first and last as a 'theorist', taking only the broadest and most obvious facts as a base and concentrating on forging tools of interpretation."^{28/}

4. Normative Pronouncements

As earlier pointed out, the cycle—"fluctuations in the desirability of acquiring instruments"—is seen by Robertson as an inherent feature of the

progressing, capitalistic economy.^{29/} But, he nevertheless speaks of "technical control over the explosive forces of industrial progress", consisting mainly of credit control over laissez-faire monetary policies.^{30/} The strategy here is to control the boom to alleviate the cycle, and this is done by lowering the demand for Short and Long Lacking during this upswing. Having the interest rate rise is suggested.^{31/} This is seen as superior to satisfying the increased demand with an increased supply of Lacking via forced savings.^{32/} Robertson does allow, however, easy money to counter secondary downturns. As he once commented, "We should not refuse to wink at a little judicious use of the money pump, if the tyres of industry seem to be sagging unduly."^{33/} But, the classical pill of falling prices and output must be swallowed initially.^{34/}

The credit control of the boom finds as its bust counterpart the stockpiling of circulating capital (to "balk the cycle-basillus of his prey")^{35/} and "organizing collective demand".^{36/} Thus, outside of monetary policy, the State is rather active in the depression phase of the cycle as compared to the boom.

It is of interest to notice what Robertson did not consider good medicine for the prevention of the swings of economic activity. Going against fashion, he rejected price stability as a "fetish" and a "false" and "dangerous" idea.^{37/} Specifically, in a later essay, he spoke of the Great Depression as an outgrowth of "ill-considered efforts to hold up prices in the face of falling costs."^{38/} But, the gold standard, with its undesirable "element of play",^{39/} is not proffered in its stead, leaving Robertson to advocate a 3% per annum deflation of the price level.^{40/} This 1932 pronouncement was the most specific ever by him and approached the earlier recommendation of Wicksell's peer and critic, David Davidson.

Though one is tempted to end the above normative analysis with the last paragraph, one should mention that, in Robertson's Lectures on Economic Principles of the late 1950's, his prescriptions had changed in regard to State policy in the slump. Summarized Seligman:

"* * * [H]e now approved of monetary expansion as a means of reducing interest rates, for this could put idle resources to work without raising prices. Public works, * * * tax rebates, and a flexible fiscal policy were also included in the new armory of economic measures to control the cycle."^{41/}

So, at least normatively, Robertson became a Keynesian contra-cyclicalist though never surrendering his strong Wicksellian ties as a theorist.

Footnotes:

^{1/}Ben Seligman, Main Currents in Modern Economics, (Glencoe: The Free Press, 1962), p. 511.

^{2/}Robertson became a neo-Wicksellian with the publication of his 1926 Banking and the Price Level, which "re-present[ed] some parts of the analytical framework of my Study of Industrial Fluctuation, [to] interweave with the mainly 'non-monetary' argument of that work a discussion of the relation between saving, credit-creation and capital growth." D. H. Robertson, Banking and the Price Level (New York: Augustus M. Kelley (1926), 1949), p. vii.

^{3/}Gottfried Haberler, Prosperity and Depression (Lake Success, New York: United Nations, (1937), 1946), p. 253. Robertson's "step by step" method, a recognition of one way causation, led him to avoid mutual determinism via the equality sign of mathematical equations. Calculus too was rejected in favor of discontinuity. See Robertson's "Saving and Hoarding", Economic Journal (Sept. 1933), p. 413.

^{4/}D. H. Robertson, "Industrial Fluctuations and the Natural Rate of Interest", Economic Journal (Dec. 1934), p. 650.

^{5/}D. H. Robertson, Money (Chicago: The University of Chicago Press, (1922), 1957), p. 132.

^{6/}Ibid., p. 129.

^{7/}Haberler, Prosperity and Depression, op. cit., pp. 87, 143 and 374. Also see Robertson's Essays on Monetary Theory (London: Staples Press Limited, 1940), pp. 191, 195.

^{8/}Seligman, Main Currents in Modern Economics, op. cit., pp. 502-503.

^{9/}In part, this terminology was borrowed by Keynes in A Treatise on Money of 1930's. See Banking and the Price Level, op. cit., p. x.

^{10/}Robertson, "Savings and Hoarding", op. cit., p. 339.

^{11/}Robertson, Banking and the Price Level, op. cit., p. 47.

^{12/}Robertson, "Savings and Hoarding", op. cit., p. 400.

^{13/}Ibid.

^{14/}In his 1922 Money (p. 75), Robertson identifies the bank injections of new money as curtailing consumption by an increase in prices. The new bank money, however, is not regular savings, but a savings "done under duress [which] gives rise to no new fund of value in their possession which they can draw upon."

^{15/}Fritz Machlup, "Forced or Induced Savings: An Exploration Into Its Synonyms and Homonyms", Essays in Economic Semantics, (Englewood Cliffs, N. J.: Prentice Hall, Inc., 1963), p. 225.

^{16/}This categorization is from Machlup, op. cit.

^{17/}Robertson, Banking Policy and the Price Level, op. cit., p. 51.

^{18/}Ibid., pp. 8-14.

^{19/}Ibid. p. 72.

^{20/}Ibid., pp. 72-76.

^{21/}Ibid., pp. 85-86.

^{22/}Ibid., p. 71.

^{23/}"Industrial Fluctuations and the Rate of Interest", Economic Journal (Dec. 1934), p. 655.

^{24/}Robertson, Banking Policy and the Price Level, op. cit., pp. 88-89.

^{25/}Ibid., pp. 90-91.

^{26/}Ibid., p. 7.

^{27/}"A Survey of Modern Monetary Controversy", Essays in Monetary Theory, op. cit., pp. 164-165.

^{28/}Schumpeter, A History of Economic Analysis, op. cit., p. 1128. Robertson's disrespect for statistical evaluation of theory once led him to refer to the econometricians as "latter day wizards".

^{29/}Robertson, Banking Policy and the Price Level, op. cit., p. 94. Only in the Centrally Planned economy could the cycle conceivably be tamed. Essays in Monetary Theory, op. cit., p. 142.

^{30/}Ibid., pp. 20, 4.

^{31/}Ibid., p. 78.

^{32/}Ibid., p. 91. But, as always, there is no mention of this causing the cycle in the first place.

^{33/}Robertson, Money, op. cit., p. 116. Also, see his 1934 review of Robbins' The Great Depression in Essays in Monetary Theory, op. cit., p. 185, and Banking Policy and the Price Level, op. cit., p. 79.

34/ Robertson, Banking Policy and the Price Level, op. cit., p. 80.

35/ Ibid., p. 97.

36/ Money, op. cit., p. 148.

37/ "Theories of Banking Policy", Essays in Monetary Theory, op. cit., p. 66.
Also, see Banking Policy and the Price Level, op. cit., p. 102.

38/ "How Do We Want Gold to Behave?", The International Gold Problem
(London: Oxford University Press, 1932), p. 45. Also, see p. 22.

39/ Money, op. cit., p. 130.

40/ "How Do We Want Gold to Behave?", op. cit., p. 24.

41/ Seligman, Main Currents in Modern Economics, op. cit., p. 509.

CHAPTER FOUR

J. M. KEYNES: THE RECANTED WICKSELLIAN

CHAPTER FOUR

J. M. KEYNES: THE RECANTED WICKSELLIAN

The Keynes everyone knows is the 1936 author of The General Theory of Income Interest and Employment, the work that created the "Keynesian Revolution". But only several years before was another full-scale exploration of aggregate activity, entitled A Treatise on Money (1930). The Keynes of this period, unbeknownst to most, was a Wicksellian theorist. As Shackle reminds us:

The Treatise is thoroughly Wicksellian. Keynes is asking and answering in book III ('The Fundamental Equations') precisely the question that Wicksell asked and answered in Geldzins und Güterpreise, namely, what circumstances entail a general rise (fall) of prices and consequently what circumstances * * * ensure the absence of any such tendency. His answer is the Wicksellian one.^{1/}

This classification was one Keynes did not deny. As he states:

In substance and intention Wicksell's theory is closely akin to the theory of this treatise. * * * Wicksell's (equilibrium) expressions * * * can be interpreted in close accordance with the fundamental equation of this treatise.^{2/}

It remains in this chapter to analyze the 1930 and 1936 Keynes vis a vis Knut Wicksell. The heavy emphasis on Keynes' earlier period, it is hoped, will give the reader a new perspective for understanding and judging the Keynesian Revolution.

1. A Treatise on Money

Keynes' 1930 work has not been overlooked by all. Joseph Schumpeter has given it high marks by proclaiming it "Keynes's most ambitious purely scholarly venture."^{3/} Keynes' most ardent critic of the period, F. A. Hayek, too has expressed admiration of the embryonic ideas embedded in the two volumes.^{4/} But for our purposes, the significance of the Treatise is that it contains a close, yet

unique, interpretation of the Wicksellian idea, not only from Wicksell but from others, notably D. H. Robertson.

A. Monetary Equilibrium

Equilibrium's most important prerequisite to Keynes was the equality of savings and investment. The additional equality between the natural rate and market rate of interest, terms defined in their conventional senses, is also identified with equilibrium.^{5/} Here the producer and consumer good price levels, equalling their aggregate cost of production, are stable.^{6/}

The above three conditions will be recognized as the three of Wicksell. But one more remains. Paralleling the stability criterion of Gunnar Myrdal, Keynes envisions equilibrium as requiring aggregate profits (or losses) to be zero. This, he makes clear, follows from the equality of savings and investment. Thus, the scale of output will remain, without the incentive (disincentive) of profit (loss), constant.^{7/}

Monetary equilibrium for Keynes, as for Wicksell, Myrdal, Robertson and (as we shall see) Hayek, meant aggregate stability. To equate savings and investment would thus mean "the credit cycle would not occur at all."^{8/}

B. Monetary Disequilibrium

In the opening sentence of the preface, Keynes declares:

My object has been to find a method which is useful in describing, not merely the characteristics of static equilibrium, but also those of disequilibrium, and to discover the dynamical laws governing the passage of a monetary system from one position of equilibrium to another.^{9/}

Disequilibrium revolves around the divergence between savings and investment for Keynes as with the others in the Wicksellian tradition; yet the sources of the inequality were not borrowed. Differences between the natural and market rate

of interest, spawning the S-I problem, arise for a variety of reasons in addition to the oft-cited one of alterations in the quantity of money for him.^{10/} As he stated, "Currency stability does not mean universal quiescence and a prevailing atmosphere of no change."^{11/}

Keynes' most remembered reason for S-I disequilibrium is contained in the argument that different persons and motives underlie the magnitude of each, breeding the inequality.^{12/} Savers and investors themselves lack the "possibility of intelligent foresight designed to equate savings and investment" and cannot ex poste undo the irreversibility.^{13/}

Another real cause of the savings-investment inequality, one causing a change in the natural rate of interest not matched by the market rate, is a changed perception of investment opportunities. Whether it be an invention, war or new expectations, savings and the market rate of interest cannot be expected to match the altered natural rate.^{14/}

Hoarding, too, is cited by Keynes as causing savings to not dovetail with investment. For surely this is money saved that is not invested.^{15/}

Along with the above nonmonetary reasons for the cycle,^{16/} Keynes takes pains to emphasize the role of changes in credit. Citing his affinity with Wicksell, he identifies increases in the quantity of money as lowering the market rate of interest below the natural rate and vice versa.^{17/} A change in the demand for money—a change in velocity—too can be equated with an alteration in the quantity of money, adds Keynes.^{18/}

The above reasons for the initiating disturbance of interest rate, both monetary and real, have been examined. We may now focus on Keynes' disequilibrium dynamics resulting from the disturbance.

Let us begin with the market rate of interest rising above the natural rate, which translates into a surplus of savings over investment. Prices of capital goods drop from the decrease in investment while consumer good prices fall from the increase in savings.^{19/} Thus a general deflation ensues, triggering widespread losses and the release of factors. The longer the gap persists between the natural and market rates, the greater the factor idleness.^{20/}

For the opposite case, the market rate falling below the natural rate, the reverse of the above occurs. With investment greater than savings, upward pressure is exerted on prices. The capital and consumer good industries enjoy profits and employment and output rise.

A significant departure from the straight Wicksellian line occurs with regard to the just-mentioned scenario of a low market rate of interest. The issue of forced savings, so central to all of the theoreticians studied in this paper, is downplayed by Keynes in his description of monetary disequilibrium. The idea of the banking system's monetary policy being the difference between savings and investment is dismissed in the preface as not having empirical validation.^{21/} Later in the Treatise, he theoretically argues the phenomenon can occur from non-monetary means, too, thus making forced savings "too precarious a source of additional savings to deserve separate notice."^{22/} The effects, explained above, from a divergence of interest rates on savings and investment depend, acknowledges Keynes, on the state of expectations. If the diversion is viewed as temporary, its disequilibrium effects will be diluted; if the diversion is perceived as permanent, its effects will be more pronounced.^{23/}

Lastly, we may ask whether Keynes sees disequilibrium as potentially cumulative as did Wicksell. Wicksell, it will be remembered, believed that prices

would rise (fall) without limit if the market rate was below (above) the natural interest rate. At least concerning the situation where monetary reasons underlie the interest rate gap, Keynes fully agrees with Wicksell.^{24/} Employment too changes cumulatively within limits for him.^{25/} But if non-monetary forces trigger disequilibrium, a self-reversal via profit and loss closes the interest rate gulf and ushers in equilibrium. In this respect he speaks of the equilibration process in terms of "oscillations" and likens the process to "swings of a pendulum."^{26/}

C. Normative Implications

Keynes was an optimist in his normative pronouncements. He believed the banking community, by successfully equating savings and investment, could cure the business cycle.^{27/} This equality, and with it the equality of the natural and market rates of interest, had precedence over considerations of currency stability.^{28/} For the stable price level, the goal of monetary policy to so many writing in this period, to Keynes did not mean aggregate stability.^{29/} An increase in prices in fact had Keynes' approval so long as the increase was within "narrow limits", in response to a previous deflation, or needed to encourage investment.^{30/}

The great evil requiring a cure was not the business cycle per se, but its deflationary stage. The boom, with its rising price level, had to be preserved. This meant that the market rate of interest needed to be kept from rising above the natural rate. On the point Keynes censured establishment bank policy:

* * * the greatest evil of the moment and the greatest damage to economic progress in the near future are to be found in the unwillingness of the Central Banks of the world to allow the market rate of interest to fall fast enough.^{31/}

The above normative outlook, as we shall see, would not substantially change even though Keynes would repudiate much of his theoretical underpinnings.

2. The General Theory

Keynes' 1936 The General Theory can be considered an about-face from the Treatise. It is not in the Wicksellian tradition and represented a distinctive break from what economists had been doing for thirty years in monetary and cycle theory. As Keynes' interpreter, Axel Leijonhufvud, has concluded:

Keynes blithely side-stepped a number of difficult issues which had come to the forefront of the debate on monetary dynamics during the early thirties. * * * In retrospect it is amazing how successful he was, for following the appearance of the General Theory they were in short order forgotten."^{32/}

Indeed, Wickell's previous influence was not to compete with the new directions given to aggregative economics by the 1936 Keynes, for reasons our final chapter will review.

The Keynes of this period proposed " * * a more general theory, which includes the classical theory with which we are familiar, as a special case."^{33/} The "familiar" theory Keynes referred to includes, of course, that of Wicksell, a theory prefaced on full employment. But Keynes in the General Theory novelly brought forth a case against full employment economics with his criticisms of Say's Law, thus justifying for himself having unemployment situations as the focus of his analysis. Keynes' economics was, as J. R. Hicks put it, "the economics of depression", so the full employment paradigm of Wicksell in large part became obsolete. The new paradigm, erected on the assumption of full unemployment, became associated with the General Theory, a book which reworked or abandoned altogether the omnipresent Wicksellianism of the

Treatise. Keynes' avowed "struggle of escape from habitual modes of thought and expression" will constitute the remainder of this chapter.^{34/}

A. The Neutral Rate of Interest and the S-I Controversy

Keynes, it will be remembered, defined certain prerequisites for monetary equilibrium in the Treatise that produced full employment and monetary disequilibrium that produced idleness. But in the General Theory, equilibrium and unemployment were shown to be compatible. Thus, equilibrium could not remain the perfect state of affairs. So, in its stead, full employment became the goal of monetary policy normatively speaking. And for the positive analysis, the Wicksellian concepts had to be redefined to encompass situations other than full employment.

Wicksell's most central concept, the natural rate of interest, is recognized by Keynes as a full employment concept. And since the natural rate is a benchmark for equilibrium and equilibrium could be associated with any level of employment, argued Keynes, the term diminishes from a landmark of potential stability to an uninteresting status quo figure.^{35/}

A new classification is then proposed to recapture the importance previously associated with the natural rate—the neutral rate of interest. Keynes defines this as "the rate of interest which prevails in equilibrium when output and employment are such that the elasticity of employment as a whole is zero."^{36/} But rather than continue his analysis down this familiar path, Keynes leaves it untraveled as if to ignore rather than refute a tradition in economic thought.^{37/}

The interest rate question has importance only by the savings-investment controversies associated with it. And even though Keynes is mute on the issue of the equality or divergence between the neutral and market rates of interest, the

propensity to consume.'"^{44/} The increased savings, assuming savings equals investment as Keynes sometimes does,^{45/} increases incomes and thus income in the next period from which a normal MPS (marginal propensity to save) is re-established. The new (higher) savings to income ratio is thus in this way "forced".^{46/}

C. Keynes' Cumulative Process

It is a matter of debate over the amount of dynamic analysis Keynes offers in his 1936 work. He himself saw the earlier Treatise's dynamicism as "incomplete and extremely confused" and the General Theory as its correction.^{47/} But not all agree with this self-assessment. G. L. S. Shackle, whose praise on the dynamic character of the Treatise has been quoted, had the opposite to say:

At each curtain rise the General Theory shows us, not the dramatic movement of inevitable action, but a tableau of posed figures. It is only after the curtain ^{has} descended again that we hear the clatter of violent scene-shifting.^{48/}

In modern parlance, following Ragnar Frish, we would call the General Theory an exercise in comparative macrostatics.^{49/}

In the General Theory Keynes does preserve the Treatise's adaptation of Wicksell's cumulative process, and the former work is to this extent dynamic. As in the Treatise, cumulative price rises occur only at full employment. This occurs from either continuous increases in the money supply, an increase in the marginal propensity to consume, or in the marginal propensity to invest.^{50/} As for the deflationary cumulative process, both works have price drops occur on the backdrop of factor unemployment.^{51/} This process is triggered by the opposite of the above—decreases in money, the marginal propensity to consume, and the marginal propensity to invest. But not only does Keynes speak of "money

prices rush(ing) violently between zero and infinity", he identifies positions of "unstable equilibrium",^{52/} promoting a nihilistic tendency which radically interpreted meant overthrowing neo-classical economics completely. To many this radical break was what Keynes' message was all about, a break stemming from his refinements on a theme of Wicksell's.^{53/}

D. Normative Conclusions

As in the Treatise, Keynes forwards a real theory of the business cycle. Sudden drops in aggregate demand, be it a fall in the MPC or MEC (Marginal Efficiency of Capital), mark the downturn.^{54/} To counter such evils, Keynes recommends both government socialization of investment and public (government) spending to buoy aggregate demand at full employment levels.^{55/} Investment to Keynes was the most important component of the aggregate demand, and his highest recommendation in this regard is "a low rate of interest. For that may enable the so-called boom to last." This, he concludes, would create the panacea of a permanent "quasi-boom".^{56/} So, in conclusion, we see that Keynes' normative conclusions remained invariate between his two major theoretical works, even though his theoretical analysis was altered substantially.

Footnotes:

1/ The Years of High Theory, op. cit., pp. 179-180.

2/ Keynes, A Treatise on Money: Volume I (Cambridge, U.K.: Macmillan Press, 1930, 1971), pp. 167, 177. In particular, see the chapter "The 'Modus Operandi' of the Bank Rate". Mark Blaug views this chapter as Keynes' "tribute to Wicksell." Economic Theory in Retrospect, op. cit., p. 576. To mention one other historian of thought, Axel Leijonhufvud labels the Treatise a "variation on the Wicksellian theme". On Keynesian Economics (New York: Oxford University Press, 1966), p. 322.

3/ A History of Economic Analysis, op. cit., p. 1171.

4/ Hayek, "Reflections on the Pure Thought of J. M. Keynes", Economics (Aug. 1931), p. 294.

5/ At least to the present writer, Keynes is not clear on the precise inter-relationship between these two equilibrium conditions.

6/ A Treatise, op. cit., p. 231. Keynes interestingly reasons with two price levels—one for consumer goods and one for producer goods. These two indices, however, generally move in tandem. Ibid., p. 163.

7/ Ibid., p. 137.

8/ Ibid., p. 262.

9/ Ibid., p. xvii.

10/ Hayek sees Keynes' non-monetary reasons as "the most characteristic trait" of his Wicksellian interpretation. "Reflections on the Pure Theory of Money of Mr. J. M. Keynes", Economics (Feb., 1932), p. 23. Keynes too identifies this as where "my theory differs from its precursors * * * ." A Treatise, op. cit., p. xxiii.

11/ A Treatise, op. cit. p. 266.

12/ Ibid., p. 250.

13/ Ibid., p. 251. The banking system, continues Keynes, potentially possesses the necessary foresight, however.

14/ Ibid., p. 271. A hypothetical illustration of the argument is provided by Keynes in his banana plantation scenario. Ibid., pp. 158-159.

15/ Ibid., p. 156. This to D. H. Robertson was "abortive savings".

16/ Keynes defines credit cycles as "the alterations of excess and defect in

the cost of investment over the volume of saving and the accompanying seesaw in the purchasing power of money * * *." Ibid., p. 249.

^{17/}Ibid., pp. 177, 194. He argues: "Every effective alteration of bank rate must be associated (ceteris paribus) by some alteration in the quantity of bank money."

^{18/}Ibid., p. 165.

^{19/}Ibid. p. 184.

^{20/}Ibid., pp. 162, 185.

^{21/}Ibid., p. xxiv.

^{22/}Ibid., p. 269. Keynes does admit to its existence in the conventional sense (see p. 157), but, as Machlup has stated, "to be sure, this was not a major point in the cycle theory expounded by Lord Keynes in the Treatise." Essays on Economic Semantics, op. cit., p. 226.

^{23/}A Treatise, op. cit., p. 182.

^{24/}"* * * this upward tendency will continue indefinitely so long as the supply of money continues to be such as to enable the money rate to be held below the natural rate." Ibid., p. 177.

^{25/}Ibid., p. 185.

^{26/}Ibid., pp. 165, 242, 248 and 250.

^{27/}Ibid., p. 262.

^{28/}Ibid., pp. 152-153.

^{29/}Ibid., p. 266. At times, Keynes seemed to border on the view that the price level concept per se was meaningless and thus could not be a criterion for policy. See pages 83-84 and 194.

^{30/}Ibid., pp. 153, 267.

^{31/}A Treatise: Volume II, p. 207.

^{32/}On Keynesian Economics, op. cit., pp. 343-344.

^{33/}The General Theory of Employment, Interest and Money (New York: Harcourt, Brace, & World, Inc., 1936, 1964), p. vii.

^{34/}Ibid., p. viii.

^{35/}Ibid., pp. 242-243.

^{36/} Or in other words, employment and production are at a maximum. Ibid., p. 243.

^{37/} On Keynesian Economics, op. cit., p. 346.

^{38/} The General Theory, op. cit., p. 78.

^{39/} For the reasons, see The General Theory, op. cit., pp. 21, 160-161.

^{40/} On Keynesian Economics, op. cit., p. 65.

^{41/} The General Theory, op. cit., p. 80.

^{42/} The savings is forced, as Keynes interprets the doctrine, only if the increase in money lowers consumers' purchasing power. Ibid., pp. 80-81.

^{43/} Ibid., pp. 328-329.

^{44/} Essays on Economic Semantics, op. cit., p. 231. Also see D. H. Robertson, "Some Notes on Mr. Keynes' General Theory of Employment", Quarterly Journal of Economics (1936-37).

^{45/} For example, see the General Theory (op. cit., p. 74) where he views savings and investment as "equal in amount" and "merely different aspects of the same thing".

^{46/} See Machlup's explanation in Essays, op. cit., pp. 231-2.

^{47/} The General Theory, op. cit., p. vii.

^{48/} The Years, op. cit., p. 182.

^{49/} Leijonhufvud interestingly takes an in-between view by seeing the General Theory, like the earlier Treatise, as composed of a static model and dynamic (short run) theory. On Keynesian Economics, op. cit., pp. 22-23 and 36-37.

^{50/} The General Theory, op. cit., pp. 118-119, 239.

^{51/} On Keynesian Economics, op. cit., p. 321.

^{52/} The General Theory, op. cit., pp. 269-270.

^{53/} On Keynesian Economics, op. cit., pp. 321-322. Also see Alan Coddington's "Keynesian Economics: The Search for First Principles", Journal of Economic Literature (December, 1967), pp. 1259-1263. Coddington speaks of such Keynesian disciples as Robinson, Shackle and Brian Loasby—the "fundamentalists"—who attack the notion of stable equilibrium altogether, emphasizing instead the divergence of expectations, the uncertainty of the future, and the partial ignorance of market participants. This vibrant branch of modern

Keynesianism, like Keynes himself, must too pledge allegiance to Wicksell's cumulative process as the birth of this idea.

^{54/}The General Theory, op. cit., p. 313. One wonders if Keynes could have a cycle theory built initially on the sand of unemployed resources, however.

^{55/}Ibid., pp. 129, 320.

^{56/}Ibid., p. 322.

CHAPTER FIVE

WICKSELLIANISM AS A MONETARY THEORY OF BUSINESS CYCLE: THE MISES-HAYEK CONTRIBUTION

CHAPTER FIVE

WICKSELLIANISM AS A MONETARY THEORY OF BUSINESS CYCLE: THE MISES-HAYEK CONTRIBUTION

J. R. Hicks recently has attempted to refocus attention on an interpretation of Wicksell that was buried by the Keynesian Revolution. In his essay, "The Hayek Story", he relates:

When the definitive history of economic analysis during the nineteen-thirties comes to be written, a leading character in the drama (it was quite a drama) will be Professor Hayek. Hayek's economic writings are almost unknown to the modern student; it is hardly remembered that there was a time when the new theories of Hayek were the principal rival of the new theories of Keynes. What was in common between them was the intellectual descent which each claimed from Wicksell; but Wicksell plus Keynes said one thing, Wicksell plus Hayek said quite another.^{1/}

This chapter will review the writings of Ludwig von Mises and F. A. Hayek (henceforth referred to as the Austrians) in the area of business cycle theory from which the two borrowed noticeably from Wicksell. The minor points of disagreement between the two theorists' Wicksellian interpretation will be bypassed for the sake of continuity.^{2/}

1. The Price System and Non-Neutral Money

To understand the Austrian interpretation of Wicksell and the business cycle theory developed therein, one should first comprehend the nature of the price system and its relationship to a monetary economy. This was the task of the early chapters of Hayek's first work on cyclical fluctuations, Monetary Theory and the Trade Cycle.

The central role of prices to advanced economic organization is lesson one in understanding the Austrian point of view. This relationship, Hayek reminds us, is that:

[I]n a system in which the knowledge of the relevant facts is dispersed among many people, prices act to co-ordinate the separate actions of different people in the same way as subjective values help the individual to co-ordinate the parts of his plan.

The price system, therefore, can be thought of as "a mechanism for communicating information."^{3/} But very importantly, unless we have reason to believe otherwise, we must conclude that the prices as a whole are reliable indices of both consumer urgency and producer scarcity. To Hayek prices indeed are signposts on the road to equilibrium, equilibrium being the state of perfect adjustment with fully employed resources between buyers and sellers.^{4/} Thus, he concludes, the barter economy could not endogenously experience cycles of business activity since entrepreneurs on the whole have reliable information to work with in their quest for pure profit. Real theories of the business cycle, stemming from either the widespread pressure of bad prices or mistaken entrepreneurial behavior toward good prices, are rejected.^{5/}

As compared to the above scenario where "correct" prices lead to "correct" production and plan fulfillment between demanders and suppliers, a disturbing element, at least potentially, is introduced which "loosens that finality and 'closedness' of the system * * * lead[ing] to phenomena which the closed system of static equilibrium renders inconceivable."^{6/} The possible disturbing element is money which can exhibit "a one sided influence elicit[ing] no reciprocal adjustment in the economic activity of different individuals."^{7/} Thus Hayek introduces the Austrian theme of the non-neutrality of money (and the potential business cycle effects therein). By non-neutral, a term with different meanings, it is meant that changes in the demand or supply of money do not affect all prices at the same time or same extent, but only in a non-even, ragged way. Production in the micro sense is therefore altered even though the supply and

7.

demand conditions of the good itself does not merit the change. Neutral money, conversely, is where changes in the demand or supply of money affect all (relative) prices identically so that the mix of production remains the same.^{8/}

Based on the non-neutrality idea, Mises and Hayek would present a monetary theory of the trade cycle utilizing Wicksellian insights.

2. Wicksell and Austrian Cycle Theory: The Boom

"Every increase in the amount of circulation credit", Mises asserts in no uncertain terms, "causes a surge of business and thus starts the cycle."^{9/} This monetary theory of the trade cycle, based on the systematic non-neutrality of money, was first presented by Mises in his seminal 1912 work, The Theory of Money and Credit. In the book he speaks of the theory of Wicksell, a theory "of the greatest importance for comprehension of many of the processes of modern economic life."^{10/} Following Wicksell, Mises sees an increase in money as lowering the market rate of interest below the natural rate, causing a "lengthening of the average period of production."^{11/} The influence of Böhm-Bawerk's capital theory on Mises as on Wicksell is in evidence here. Seen another way, also in accordance with Wicksell, the increase in the quantity of money creates a divergence between savings and investment, the latter outdistancing the former.^{12/}

As just mentioned, capital theory was an integral aspect of both Wicksell's formulation and the Austrian re-interpretation of it. But both Mises and Hayek stressed its microeconomics while Wicksell never disaggregated his concepts. Specifically, rather than say the low rate of interest helps the producer as Wicksell, Hayek and Mises would say that processes far away from the consumer—the higher stages—are the beneficiaries. Conversely, high interest rates would

not hurt all the capital good industries equally, but would hurt the higher, more timely stages relatively more than the lower ones. This perspective, when coupled with the monetary non-neutrality idea, would give the Austrian business cycle explanation its (microeconomic) uniqueness.^{13/}

Along with the inequality between S and I and the natural and market rates of interest, Wicksell's forced savings usage makes an entrance in the Austrian schema. Called by Hayek "the central idea of the theory of the trade cycle", forced savings occurs when resources are bid from lower to higher stages causing less consumer goods to be available and their prices to rise.^{14/}

The above mix of monetary and real elements—the increase in money rearranging the capital structure—constitutes the beginning of the cycle—the boom. This, to Mises and Hayek, is a situation of disequilibrium, one where savings is out of kilter with investment resulting from an artificial rate of interest. The new mix of capital goods is therefore not an equilibrium one and, as will be shown, the unstable situation has sown the seeds of a reversal.

3. From Boom to Bust: The Reversability Contribution

Once business activity is ignited by the easy money policy, the cycle is under way. But even though a continuous easy money policy would be able to "postpone the collapse", Mises points out that "the moment must eventually come when no further extension of the circulation of fiduciary media is possible."^{15/} This point is reached when a hyperinflation has ruined the currency and plunged the economy into depression. On the other extreme, if the monetary authorities end the monetary injections, thus closing the gap between the market and natural rates of interest, the consequent drop in investments funds spells trouble for the boom mix of producer goods. For consumers re-establish, unless we have reason

to believe otherwise, their true savings-investment ratios and change prices and profits accordingly. What was profitable during the credit expansion (or put another way, when interest rates sufficiently were low) is no longer since consumers spend their money in a different direction. But, in any case, the new prices and profits signal a necessary return to less capitalistic processes—few stages and/or smaller stages. Factors of production are released to accommodate the new capital structure, and the economic loss is roughly to the extent that the released factors cannot be reabsorbed. The loss of the specific resources constitutes the depression phase of the cycle.^{16/}

So far, the turn from boom to bust has included the polar opposites of an all-out inflation and the cessation of the inflation of the money supply. Other reasons for the reversal remain

Mises, adapting Irving Fisher's contribution of the inflation premium component in interest, forwards an omnipresent reason for the market rate meeting the nature rate of interest.^{17/} Fisher's contribution was to realize that lenders had to be compensated for decline in the lent money's purchasing power in the form of a higher interest rate. Thus a tension is created. The decrease in the market interest rate from the increase in money is countered by a positive price premium stemming from the expectation of price rises. The result is a narrowing of the gap between the two interest rates and a reversal of the boom's capital mix.

Mises sees one other factor encouraging the depression stage of the cycle. It is the unanticipated rise in business costs that occurs as the money supply increases spread to cost prices. This increase requires more money for operations which, if not gotten internally, increases the demand for loanable funds.

Ceteris Paribus, this increases interest rates and those firms which cannot absorb the increased cost of doing business—generally the more capitalistic enterprises most sensitive to interest costs—encounter difficulties signalling an end to the boom.^{18/}

The above discussion of the factors promoting the reversibility has followed Mises' writings more closely than Hayek's. But in Hayek's last and most original work in cycle theory, the lengthy 1939 essay Profits, Interest and Investment, a new twist was given to Mises' reasons for reversal. Advertised as "a revised version of the Wicksell-Mises theory of the trade cycle", Hayek sets out to prove that "we might get the trade cycle without changes in the rate of interest", thus showing how real forces—consumer demand and rates of return—constitute the crises.^{19/} So the key postulate is made that the market rate of interest, originally below the natural rate via credit expansion, remains unchanged throughout the cycle.^{20/} We may now examine the conclusions obtained from this assumption.

As before mentioned, the bank inflation, originally causing both capital good prices and profits to swell, leads to higher prices for consumer goods since (1) they lose production resources to higher stages and thus become more scarce and (2) consumer preferences reassert demand to these industries. These higher consumer good prices, assuming the wages of the goods' workers remain unchanged, constitute a drop in real wages and consequently a substitution of labor for capital or what Hayek labels the Ricardo Effect.^{21/} The working of the Ricardo Effect hurts the very same industries—the higher stages—that are subsidized, so to speak, by the funds that create the artificially low rate of interest. Hayek labels the consumer demand putting the Ricardo Effect into play

the multiplicand and the low interest rate stimulus the multiplier.^{22/} The competition between the two opposites eventually, concludes Hayek, terminates in victory for the multiplicand since both the quicker processes enjoy a higher turnover profit and endure less uncertainty.^{23/} The collapse of the industry initially made prosperous by the multiplier effect working without the multiplier hindrance thus ensues.^{24/}

4. Wicksell's Neutrality Conditions Revisited

Wicksell's three conditions for monetary neutrality—the equality of savings and investment, price level stability, and the equality of the market and natural rates of interest—find only one exception in the Austrian interpretation. (Of course what is neutrality to Wicksell is the macroeconomic idea of stability or the position of general equilibrium and not the Austrian microeconomic idea of uneven price changes.) The exception, touched upon earlier in this chapter, is the price level concept which is demoted as a meaningful concept for evaluating the health of an economy. In its stead, the position of relative prices vis a vis consumer preference becomes the barometer from which to judge equilibrium or disequilibrium. In fact, Mises and Hayek strongly censure the Wicksellian goal of stabilizing the price level since, as David Davidson first pointed out, this requires increasing the money supply which produces its own bad effects. To stabilize prices is not to stabilize business activity as was so popularly believed, Mises and Hayek repeatedly pointed out.^{25/}

5. Time and Expectations in Austrian Cycle Theory

Time (dynamics) and expectations are unavoidably integral parts of the Wicksellian tradition. And all business cycle theory must, implicitly or explicitly, incorporate opinions on these two aspects.

Wicksell's cumulative process was an attempted escape from statics, but expectations for him remained cemented in the static state. For our purposes, we can adopt Hicks' definition of static expectations as when "the same prices as rule today are expected to continue in the future."^{26/} Using this definition, in the Austrian cycle schema expectations can be interpreted as static in regard to interest rates, costs and revenues. Specifically, Hayek and Mises believe that businessmen, upon encountering the new favorable (but "artificially low" to the economist) rate of interest, believe the rate is more the rule than exception and act accordingly.^{27/} In this regard, Hayek makes the distinction between entrepreneurs who are victims of "justified errors" rather than "sheer errors" since they were "misled by following guides or symptoms which as a rule prove reliable."^{28/} The "guides" or "symptoms" are, of course, the market rates of interest vis a vis expected factor costs and revenue.

So, as our analysis of this section gives us reason to believe, the Austrians—like Wicksell—take a simplified position on one of the most difficult areas of economic theory—expectations. And it is here that the critics of the cycle theory, even from within the Austrian spectrum, are most vocal. Hayek's pupil, Ludwig Lachmann, for example says in his important essay "The Role of Expectations in Economics as a Social Science":

"* * * [W]e now know that if banks are to succeed in altering the long-term rate of interest, expectations have to be elastic. Seen from this angle, the Wicksellian theory appears to be based on a very special assumption, vis, of a capital market without a very strong mind of its own, always ready to follow a lead on the spur of the moment, and easily led into mistaking an ephemeral phenomenon for a symptom of a change in the economic structure. Without fairly elastic (read static)^{29/} expectations there can be no crisis of the Austro-Wicksellian type."

Having mentioned the above thorn in the Austrian-Wicksellian cycle theory,

a thorn in the side of much of economic theory even today, praise can be liberally heaped on the most dynamic of Wicksellian interpretations. The disaggregation of price level analysis to study the path of relative price changes was a needed complement to the dynamicism given to economics by Wicksell's cumulative process analysis. More will be said on the point in the concluding chapter of this book.

6. Normative Conclusions

As with all economists working the Wicksellian tradition, Mises and Hayek gave high priority to the cure as well as the cause of aggregate instability.

Hayek, in the final chapter of his seminal Prices and Production, identifies non-neutral money as the cause of the alterations in the capital structure constituting the cycle. But since eradicating the non-neutral property from money is "insuperable", Hayek's recommendation is simply the "negative maxim" of not allowing banks to embark upon credit expansion.^{30/}

Mises, similarly, saw the inevitability of non-neutral money giving rise to entrepreneurial error resulting from bad prices, but believed that systematic error of this kind was possible only from a general credit expansion. Therefore, by adopting the gold standard and instituting free banking with no redemption restrictions, Mises believed inflation could be avoided, leaving the relatively serene situation of "minor alternating 'ups' and 'downs' of everyday activity."^{31/}

Footnotes:

^{1/}J. R. Hicks, Critical Essays in Monetary Theory (Oxford: Clarendon Press, 1967), pp. 203-204.

^{2/}For an attempt to specify the differences, however slight, between Hayek and Mises, see my unpublished "On the Development of Austrian Business Cycle Theory", Schultz Foundation Paper, Summer, 1979.

^{3/}Hayek, "The Use of Knowledge in Society", Individualism and Economic Order (Chicago: University of Chicago Press, 1948), pp. 85-86.

^{4/}See Hayek's Monetary Theory and the Trade Cycle (Clifton: Augustus M. Kelley, 1975, 1933), p. 85.

^{5/}*Ibid.*, p. 95. The latter possibility of mass error in the face of correct prices by entrepreneurs is pronounced untenable by Hayek on the empirical grounds that profits are perceived and losses avoided with notable success.

^{6/}*Ibid.*, p. 93.

^{7/}*Ibid.*, p. 108.

^{8/}For an early yet sophisticated analysis of non-neutrality and the consequent wealth effects, see Ludwig von Mises' The Theory of Money and Credit (Irvington-on-Hudson: Foundation for Economic Education, 1971, 1912), pp. 138, 207 and 212.

^{9/}von Mises, "Monetary Stabilization and Cyclical Policy", 1928, reprinted in On the Manipulation of Money and Credit (Dobbs Ferry, N.Y.: Free Market Book, 1978), p. 153. Hayek too sees "the elasticity in the credit supply" as causing "a failure in the 'interest brake' ". Monetary Theory, op. cit., pp. 178-179. But Schumpeter, despite this commonality, sees Mises' theory as monetary and Hayek's as more real. See History of Economic Analysis, op. cit., pp. 1120-1121 and 1128.

^{10/}The Theory of Money and Credit, op. cit., p. 360.

^{11/}*Ibid.*, p. 361. In his later writing, Mises would abandon the Böhm-Bawerkian notion of an average period of production and speak of a lengthening and/or widening of the production structure.

^{12/}It should be remembered that in this day all new money went out of the banking system as producer loans rather than for consumer purchases. Thus the amount of new money was equal to the surplus of investment over savings.

^{13/}The most elaborate presentation of the stages idea is in Hayek's 1931 work, Prices and Production (New York: Augustus M. Kelley), chapter II.

^{14/} Ibid., p. 101.

^{15/} The Theory of Money and Credit, op. cit., p. 365. Mises goes on to make the point that the longer the inflation, the worse the readjustment period.

^{16/} Ibid., p. 364.

^{17/} Ibid., p. 363.

^{18/} On the Manipulation, op. cit., p. 127. One could believe, however, that the price inflation affects both costs and revenue to no ill effect.

^{19/} Hayek, Profits, Interest and Investment (Clifton: Augustus M. Kelley, 1975, 1939), p. 64.

^{20/} Ibid., p. 6. Hayek recognized this assumption as "perfectly fantastic" yet "theoretically very interesting." See "The Ricardo Effect", Individualism and Economic Order, op. cit., pp. 235, 238.

^{21/} Profits, Interest and Investment, op. cit., pp. 8-10.

^{22/} Ibid., p. 19.

^{23/} Ibid., pp. 31-32.

^{24/} This sketchy synopsis can be profitably supplemented by G. P. O'Donnell's discussion in his Economics as a Coordination Problem (Kansas City: Sheed, Andrews and McMeel, Inc., 1977), pp. 92-134.

^{25/} For one example of this warning, see Hayek's Price and Production, op. cit., p. 27.

^{26/} Hicks, "The Hayek Story", Critical Essays, op. cit., p. 206. Elsewhere Hicks has called static expectations "elasticity of expectations of unity." See Economic Theory in Retrospect, op. cit., p. 568.

^{27/} For example, see Mises' On the Manipulation, op. cit., pp. 124, 127. The case of repeated injections of money holding the market rate of interest down for longer than otherwise lends more plausibility to the idea as Mises would argue is experience-wise often the case. Profit expectations too are static in Hayek's "Ricardo Effect" analysis. See Profits, Interest and Investment, op. cit., pp. 16-17.

^{28/} Profits, Interest and Investment, op. cit., p. 141.

^{29/} Lachmann, Capital, Expectations and the Market Process (Kansas City: Sheed, Andrews and McMeel, Inc., 1977), p. 79. This 1943 essay was responded to by Mises in an essay of the same year, "'Elastic' Expectations and the Austrian Theory of the Business Cycle", Economics (Aug. 1943), pp. 251-252.

^{30/}Prices and Production, op. cit., pp. 124-125. Hayek, however, does not join Mises in favoring a total separation of government and money to achieve this end.

^{31/}On the Manipulation, op. cit., pp. 132-133.

CHAPTER SIX

INTERPRETATIONS OF WICKSELL: A SORTING OUT

CHAPTER SIX

INTERPRETATIONS OF WICKSELL: A SORTING OUT

If economics were a science of things and not purposive human action, we could simply utilize laboratory conditions to, by judicious manipulation of constants and variables, reduce complex phenomena to simple phenomena and thereby sort out truth from falsehood. We could quickly dispose of opposite opinions and be left with a positive theory of monetary equilibrium from which a normative program with every chance of success could be derived.

But for better or worse, economics is not a laboratory science, and the history of economic action cannot be modulated into laboratory data as the econometric method would have us believe. Rather, as will be demonstrated later, another method must be employed to analyze disagreements within the Wicksellian heritage. These areas of controversy may be summarized below:

- (1) Is the natural/market interest rate distinction a correct and useful theoretical tool?
- (2) How relevant is the "forced savings" concept?
- (3) Is the savings-investment criterion meaningful?
- (4) Is the existence or nonexistence of aggregate profits or losses a guide to economic stability?
- (5) Is the behavior of the price level, relative prices, or both important for identifying the presence or absence of equilibrium?
- (6) Should our underlying theory of capital, so important to aggregate stability, be macroeconomic ("the producers") or microeconomic ("the stages of production")?

- (7) Should we judge Wicksell's contributions from the full employment perspective or must we interpret it anew assuming unemployment?
- (8) Must Wicksell's equilibrium conditions be modeled and statistically tested for potential falsification or can we rely on the common-sense method as the "test"?
- (9) Are business cycles the result of real forces, monetary forces or both? And finally,
- (10) How can the cycle be prevented, if it is preventable at all?

1. Agreements with the Wicksellian Heritage

Before examining the above post-Wicksellian controversies, we should point out the common ground between the interpreters studied herein. This common theory may be considered unambiguous contributions to economic analysis.

Wicksell's systematic idea of the indirect effect of money on prices—specifically the short-run effect of money on interest rates and interest rates on capital good prices—is reaffirmed by Myrdal, Robertson, Keynes and Mises/Hayek. In this regard, a theory of capital, to different degrees of sophistication, is employed by all. The stimulative effect of monetary increases and the depressing influence of monetary decreases on employment and the capital structure are acknowledged. Thus, we have a mix of monetary and real elements with the "money as a veil" idea of the classical economists abandoned. As Mark Blaug summarizes about the Wicksell influence: "for the first time, monetary forces are clearly brought into play to explain the level of aggregate economic activity."^{1/} Normatively and praxeologically, therefore, the banking system was recognized as an important institution for economic change.

The goal of a truly dynamic analysis is longed for by one and all in the

Wicksellian tradition. In common, they aspire to the methodology that was behind the cumulative process contribution. As regards the cumulative process itself, the ability of banks to issue new money in finitum is identified with cumulative rises in prices by all the theorists examined.

2. Near-Agreement Within the Wicksellian Heritage

We have much more common theoretical ground between the economists studied herein if we exclude the latter period of but one economist—J. M. Keynes. This of course leaves us with the views of Myrdal, Robertson, Mises/Hayek and the Keynes of the Treatise. Within this group we discover harmony regarding key Wicksellian contributions including the relevance of the natural/market interest rate schema, the savings/investment conditions and the forced savings concept. In other words, a full two-thirds of Wicksell's monetary neutrality framework is commonly adopted. It will be recalled that it is agreed by the above theorists that monetary equilibrium presupposes the equality of savings and investment, the equality of the market and natural rates of interest, and the absence of forced savings. Any of these inequalities and the presence of forced savings signal monetary disequilibrium (non-neutrality) to this group.

3. Controversies Within the Wicksellian Heritage

Many more disagreements than agreements litter the Wicksellian landscape. At the root of the controversies lie questions of methodology—the theory/history relationship, the micro/macro relationship and the full employment assumption. And from these methodological questions rise varying views of the nature of the business cycle itself and the possibilities of taming it.

A. Methodological Divergencies

A controversy as important as it was muffled is the controversy over

method. At one extreme we have Gunnar Myrdal who sees value in Wicksell's theories only insofar as they can be quantified and tested. Keynes, too, at times shares Myrdal's methodological leanings, though on the whole he was more eclectic than pure on such issues.^{2/} At the other end of the spectrum we have Mises, Hayek and Robertson who approached Wicksell's ideas solely by the common sense criterion while only allowing the "facts" to illustrate (rather than test) established theory.

We may now ask which position is right and which wrong between the two. Orthodoxy and fashion would proclaim a strong preference for Myrdal's stance and an equally strong disdain for the Mises, Hayek and Robertson alternative. But the present writer must take exception to the majority opinion and sharply censure Myrdal, despite his methodological advances on the time aspect of economics, for the model-test interpretation of Wicksell.

Myrdal, it will be remembered from the second chapter, was candid about the shortcomings of his assigned task. Many specific criticisms of his own quantification efforts are readily admitted by him and carry their own weight. But more general criticisms of the method itself may be considered at this point.

The key argument in the crucial theory-history controversy to be discussed below is the neglected insight that human action cannot be reduced to theoretical constants even though it can be and has been historically measured. This is in contrast to the inanimate materials of the laboratory sciences which have no history in the human sense but possess an unmistakable regularity of quantitative preciseness. As Mises would explain, this is the result of purposive action on the part of the former vis a vis the latter.^{3/} As Hayek would explain, human action historically consists of complex phenomena—innumerable causes

and effects—that, without the laboratory, cannot be simplified down to quantitative laws while all other matter can be so reduced into theoretical constants.^{4/} Both reasons lead to the same conclusion: that econometric evaluation of Wicksell's conditions cannot be conclusive since the evidence is subject to multiple interpretations. In addition, the effects of evidence not yet recorded and the shadow of counter-facts ("what if") muddle any optimism for discovering theoretical constants of human action in this regard. In sum, another methodology is called for.^{5/}

If the model-test method is ambiguous and thus unsuitable for evaluating Wicksell, what method is appropriate? The answer is what Alfred Schutz called the common-sense method of interpretation.^{6/} This method depends for truth on logically valid assumptions and reasoning. With this procedure we can avoid ambiguity since not only are we what we study, but more importantly we comprehend the meaning of our actions on a level shared by each one of us, called by Schutz "the theory of reciprocal perspectives."^{7/} This knowledge is conceptual rather than observational since we can imagine situations and employ anonymization to enjoy a level of understanding not otherwise possible, and it is here that the common-sense method achieves universality.

Robertson, Mises and Hayek employ the common-sense method. But errors of assumption and logic are not prevented even by the best of methodological roadmaps. The remainder of our section will attempt to uncover such errors within the Wicksellian heritage as well as the truths—both with the common-sense method.

B. The Macro vs. Micro View

This area of controversy can too be viewed as methodological. It in

particular covers the areas of price, capital and profit/loss.

One view is held by the Austrian theorists (Mises and Hayek) who believe all aggregates can and must be reduced to its micro components to gain theoretical causality. Hayek, in Prices and Production, expresses the view:

* * * [N]either aggregates nor averages do act upon another, and it will never be possible to establish necessary connections of cause and effect between them as we can between individual phenomena, individual prices, etc. I would even go so far as to assert that, from the very nature of economic theory, averages can never form a link in its reasoning.^{8/}

We may summarize this argument and show its relevance to important aspects of Wicksellian theory.

Mises and Hayek see economics as the study of human action. Therefore, factors influencing individual decisions are causal and other factors not taken into account are not causal in understanding what actors do to improve their condition. Specifically, individual (relative) prices influence human behavior rather than the price level, however arbitrarily the latter is computed. Therefore, causal properties cannot be attributed to the price level and can be attributed to the behavior of relative price movements. Profits and losses too have meaning only in the micro sense for this reason. The price level and aggregate profits (losses) do not exist to be causal it should be remembered. Lastly, our view of capital must be microeconomic. The fact that capital goods are heterogeneous and that stages of production nearer to or further away from the consumer exist must lead the theorist to reject the simple view of capital homogeneity and thus perfect substitutability between stages.^{9/} Thus, in all, this microeconomic view stresses the importance of relative prices (stemming from the non-neutrality of money) on the location of the stages of production.

The opposite macro perspective is not only found in Wicksell himself, but in

Myrdal, Keynes and, to a lesser extent, Robertson, too. But it is in Myrdal and the 1936 Keynes that the holistic approach is crucially relied upon.^{10/} In large part, their holism is handmaiden to their other methodological biases since macro quantities are the building blocks for empirical research.

Between the above two perspectives, Wicksell's ideas are interpreted very differently. And they are not compatible. But the present writer must once again go against orthodoxy and stress the above arguments in favor of disaggregation. It cannot be denied that relative prices are crucial for economic decisions and that different parts of the capital structure do not respond identically to changes in consumption, savings and investment. But nonetheless these points have been neglected—better yet, sacrificed—on the altar of the highly questionable econometric method by modern day economists influenced by Wicksell.^{11/}

C. The Full Employment Assumption

This debate is between the 1936 Keynes and Wicksell, Myrdal, Robertson, Mises and Hayek. Under the influence of Walras, equilibrium (full employment) was the unquestioned starting point of analysis to the latter group of theorists. Then, postulating an adverse change, these economists studied unemployment and other factor idleness after which forces of equilibrium restored full employment.^{12/} So both the full employment assumption and the existence of unemployment are present in the comparative statics analysis of these theorists.

Contrarily, the 1936 Keynes questioned the theoretical practice of postulating full employment. Less than full employment was promoted from the exception to the rule, for reasons discussed in Chapter Four, making all full employment concepts and conclusions obsolete. Thus Keynes came to the

conclusion that forced savings and the natural rate of interest were not applicable to unemployment situations. This offered yet another controversy within Wicksellianism.

Keynes' most famous postulate has been subject to a telling critique by several economists, most notably Hayek and W. H. Hutt.^{13/} These criticisms have been neatly summarized by a Hayekian pupil, G. P. O'Driscoll and deserve quotation at length.

*** [A] distinction must be made between the methodological assumption of full employment and the empirical assumption of full employment. The methodological assumption of full employment has [several] distinct advantages. First, it is consistent with the general approach in other areas of economic theory. Starting from full employment [i.e., equilibrium] avoids attributing adjustments that would occur in any case to the disturbance under consideration. Next, it focuses attention on the problems to be analyzed—that of unemployment—and compels the theorist to deduce the emergence of unemployed resources, rather than beg the question by assuming what needs to be explained.^{14/}

So we can find sympathy with the view that not only does Keynes' theory fail to invalidate his Wicksellian peers' work, but also that the procedure of assuming unemployment stalemates the discussion by initially begging the question of monetary equilibrium.

Lastly, we may inquire if a co-existence is possible between the two starting points; Keynes' analysis just being "special-case Wicksellianism". One must here also deny any co-existence and close the coffin on the 1936 Keynes and the controversy therein for reasons given below.

If indeed we have a positive theory of factor idleness—which I believe we do, given a satisfactory theory of the business cycle and non-clearing prices—we can explain Keynes' special case rather than assume it. Really this is the original argument against Keynes. And further, Keynes' case for the unemployment

assumption fails if his arguments against a correctly defined Say's Law can be proven erroneous, which elsewhere has been attempted.^{15/}

D. Business Cycle Theory and Wicksell: Monetary or Real?

It will be remembered that in this area we had repeated instances of a real theory of the trade cycle replacing a monetary induced one when it seemed the opposite would be the case. Several of our economists, after building a system stressing aggregate disturbance from a monetary induced interest rate divergence, shifted gears completely by tossing their monetary analysis aside in favor of a causal explanation of a different kind. Wicksell himself did this, as did Robertson, while the Keynes of the Treatise steered a middle course between monetary and real factors.^{16/}

From the real extreme we have the monetary extreme of Mises and Hayek who, although integrating real and monetary elements in their explanation, used their Wicksell-inspired monetary analysis to pinpoint money injections as the trigger of the cycle. Real explanations are dismissed by these two theorists as failing to explain systematic (as compared to unsystematic) error as Chapter Five explained.

To decide between the two explanations of cyclical activity, we may ask if Wicksell's insights on monetary theory are important in both the aggregate and equilibrium/disequilibrium senses. Surely all of our theorists would answer in the affirmative. If this much can be conceded, then it remains to be shown that only monetary disturbances and not real factors initiate the trade cycle. To do this, the logic of the Mises/Hayek view would have to be rehashed, which is not necessary here. But in any case, monetary equilibrium and disequilibrium cannot be isolated from discussions of the business cycle. Monetary changes affect more than just prices and also alter real magnitudes that constitute cyclical

activity.

E. Taming the Cycle: Normative Divergences

To identify the extremes on this question, to avoid the downswing of the cycle is Keynes' goal while the elimination of both boom and bust is central to Mises and Hayek. To Keynes this translates into the policy of keeping the market interest rate at a stimulative (low) level; to Mises and Hayek it means to eliminate the inherently non-neutral money and credit increases.

Robertson and Myrdal are more difficult to pigeonhole. Both tend to worry about the excess of the boom and prescribe non-monetary corrections. In the downturn, we find Robertson joining Keynes in prescribing policies to increase demand to liquidate excess inventories. Myrdal, on the other hand, sees "fields of indifference" regarding recession policies and offers little recommendation. But of significant interest, all of our theorists—Myrdal, Robertson, Mises and Hayek—recognize conflict between the cherished goals of price and business stabilization, noticed first by Wicksell's peer, David Davidson. Thus Wicksell's norm of a stable price level is universally abandoned, leaving the other two prerequisites for monetary equilibrium—the interest rate and S-I equalities—accepted.

4. Wicksellianism and Modern Economics

In what today is taught as macroeconomics, Wicksell's contributions are looked upon as either secondary or obsolete vis a vis the Keynesian paradigm. But if our earlier discussion of the advantages of full employment versus unemployment analysis is worthy, the Wicksellian heritage is a very underrated one indeed. For in macroeconomics, Wicksell is to full employment what Keynes is to resource unemployment. In fact, historians of thought have already identified

Keynes' full employment scenario (where increases in demand cumulatively heighten prices) as essentially Wicksellian.^{17/} So if Keynes' "unemployment equilibrium" were to lose favor for whatever theoretical or empirical reasons, Wicksell would replace Keynes as the father figure of modern macroeconomics.

However, one enigma has surfaced that dirties up any modern adaptation of some of Wicksell's tidy concepts. When Wicksell, Robertson, Myrdal, Keynes, Mises and Hayek were writing some forty to eighty years ago, expansionary bank policy directed the new money to producer loans only. This gave strong substance to the study of the position of savings to investment and the market to the natural rate of interest. But today, institutional changes have made the relevance of these concepts less clear. For the new money does not all go into investment via the credit market, but also goes directly to consumers for their purchases. Thus the market rate of interest is not directly and unambiguously affected—lowered—by credit injections (and vice versa). And the divergence between savings and investment is no longer equal to changes in the money supply. Thus the consequent effects on relative prices (between consumer and producer good prices) and the production mix of capital is muddled.

In conclusion of this Masters Thesis, two points are noteworthy. One is that the Wicksellian contributions have been unnecessarily neglected in favor of Keynesianism. Against this bias it should be pointed out that Wicksell's is a paradigm that both modern-day Monetarists and Austrians can comfortably fit into and, coupled with the much deserved decline of Keynesian analysis, Wicksell now deserves his due. Secondly, the microeconomic advances by some of Wicksell's interpreters deserve much more recognition and further research than presently is the case. This neglect is due, one suspects, to the lingering influence

of both Keynesian analysis and positivist methodology in economics. But in any case this should be corrected. The Wicksellian heritage up till now has been mostly a macroeconomic inspired one; toward the future it desperately needs to be a microeconomic tradition as well. Only then will the dream of a unified economic science—a true "neoclassical synthesis"—and a successful understanding of the most important of economic ills—the business cycle—be approached.

Footnotes:

^{1/} Economic Theory in Retrospect, op. cit., p. 567.

^{2/} Wicksell himself was non-committal on the methodological relationship while working within the macroeconomic sphere with the full employment assumption.

^{3/} See Mises' "The Science of Human Action", a 1933 essay reprinted in Epistemological Problems of Economics (Princeton: D. Van Nostrand Co., Inc., 1960).

^{4/} See Hayek's "The Theory of Complex Phenomena", Studies in Philosophy, Politics and Economics (New York: Simon and Schuster, 1967).

^{5/} These brief criticisms can be profitably supplemented by my essay, "Positivism and Praxeology: An Essay on the Philosophy of Economics", 1977 Liberty Fund Paper, unpublished but available on request.

^{6/} See Schutz's "Common-Sense and Scientific Interpretation of Human Action", Collected Papers, Vol. I, pp. 3-47.

^{7/} Ibid., p. 24.

^{8/} Prices and Production, op. cit., pp. 4-5.

^{9/} For elaboration, see Lachmann's lucid Capital and Its Structure (Kansas City: Sheed Andrews and McMeel, 1978, 1956), pp. 1-56.

^{10/} The Keynes of the Treatise took a middle of the road stance by incorporating two price levels—one for consumer and one for producer goods—though never disaggregating further. Robertson, although speaking of the importance of relative prices, thought in terms of a quantity of capital.

^{11/} The Chicago School economists come to mind on this point. I believe the case can be made about a Wicksellian influence on these theorists, sharing as they do the full employment assumption, the macro perspective and the indirect effect of money on price.

^{12/} For a sophisticated analysis of unemployment bordering on an explanation of what later was to be known as "unemployment equilibrium", see Mises' 1931 essay "The Cause of the Economic Crises", in On the Manipulation of Money and Credit, op. cit., pp. 173-204.

^{13/} One is urged to see Hutt's neglected classic, The Theory of Idle Resources (London: Jonathan Cope, 1939), in addition to Hayek's Price and Production, op. cit., pp. 32-36.

^{14/} O'Driscoll, Economics as a Coordination Problem (Kansas City: Sheed Andrews and McMeel, Inc., 1977), p. 69.

^{15/} See my unpublished "The Business Cycle and Say's Law: Keynes and His Critics", 1978, and Hutt's A Rehabilitation of Say's Law, 1977.

^{16/} It is worth investigation why Wicksell and Robertson let monetary disturbances off the hook in this regard. Perhaps normatively we had the beginnings of a pro-central bank activist policy bias that led to Keynes' non-theoretical victory over Hayek. At least Schumpeter seems to think so. See his History of Economic Analysis, op. cit., pp. 1120-1121.

^{17/} Blaug, viewing economic theory through Keynesian tinted lenses, makes the point in reverse when he remarks, "Once we pass [Wicksell's] full employment ceiling, however, it looks almost as if we are in the Keynesian world." Economic Theory in Retrospect, op. cit., p. 568.

BIBLIOGRAPHY

- Blaug, Mark, Economic Theory in Retrospect (Homewood, Illinois: Richard D. Irwin, Inc., 1962).
- Bradley, Robert L., "Positivism and Praxeology: An Essay on the Methodology of Economics", Liberty Fund Paper, Summer 1977.
- Bradley, Robert L., "On the Development of Austrian Cycle Theory", Schultz Foundation Paper, Summer 1978.
- Haberler, Gottfried, Prosperity and Depression (Lake Success, New York: United Nations, 1946, 1937).
- Haberler, Gottfried, editor, Readings in Business Cycle Theory (Toronto: The Blakiston Company, 1951).
- Hayek, Frederick A., "Reflections on the Pure Theory of Money of Mr. J. M. Keynes", Economica (Aug. 1931).
- Hayek, Frederick A., Individualism and Economic Order (Chicago: University of Chicago Press, 1948).
- Hayek, Frederick A., Monetary Theory and the Trade Cycle (Clifton: Augustus M. Kelley, 1975, 1933).
- Hayek, Frederick A., Prices and Production (New York: Augustus M. Kelley, 1967, 1931).
- Hayek, Frederick A., Profits, Interest and Investment (Clifton: Augustus M. Kelley, 1975, 1939).
- Hayek, Frederick A., Studies in Philosophy, Politics and Economics (New York: Simon and Schuster, 1967).
- Hicks, John R., Critical Essays In Monetary Theory (Oxford: Clarendon Press, 1967).
- Hutchinson, T. W., A Review of Economic Doctrines (Oxford: Clarendon Press, 1953).
- Keynes, John Maynard, A Treatise on Money: 2 vols. (Cambridge, U.K.: Macmillan Press, 1930, 1971).
- Keynes, John Maynard, The General Theory of Employment, Interest and Money (New York: Harcourt, Brace, & World, Inc., 1964, 1936).
- Kuhn, W. E., The Evolution of Economic Thought (Dallas: South-Western Publishing Co., 1970).

- Lachmann, Ludwig M., Capital Expectations and the Market Process (Kansas City: Sheed Andrews and McMeel, Inc., 1977).
- Lachman, Ludwig M., Capital and its Structure (Kansas City: Sheed Andrews and McMeel, 1978, 1956).
- Leijonhufvud, Axel, On Keynesian Economics and The Economics of Keynes (New York: Oxford University Press, 1966).
- Lutz, Friedrich A., "On Neutral Money", Roads to Freedom (London: Routledge and Kegan Paul, 1969)
- Machlup, Fritz, "Forced or Induced Savings: An Exploration Into Its Synonyms and Homonyms", Essays in Economic Semantics (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1963)
- Mises, Ludwig von, The Theory of Money and Credit (Irvington-on-Hudson: Foundation of Economic Education, 1971, 1912).
- Mises, Ludwig von, On the Manipulation of Money and Credit (Dobbs Ferry: Free Market Books, 1978, 1928).
- Mises, Ludwig von, Human Action (Chicago: Henry Regnery Company, 1966, 1949).
- Mises, Ludwig von, "'Elastic' Expectations and the Austrian Theory of the Business Cycle", Economica (Aug. 1943).
- Mises, Ludwig von, Epistemological Problems of Economics (Princeton: D. Van Nostrand Co., Inc., 1960).
- Myrdal, Gunnar, Monetary Equilibrium (New York: Augustus M. Kelley, 1962, 1939).
- O'Driscoll, Gerald P., Economics as a Coordination Problem (Kansas City: Sheed Andrews and McMeel, Inc., 1977).
- Phillips, C. A., et al., Banking and the Business Cycle (New York: The Macmillan Company, 1937).
- Robertson, Dennis H., Banking and the Price Level (New York: Augustus M. Kelley, 1949, 1926).
- Robertson, Dennis H., "Savings and Hoarding", Economic Journal (Sept. 1933).
- Robertson, Dennis H., "Industrial Fluctuations and the Natural Rate of Interest", Economic Journal (Dec. 1934).
- Robertson, Dennis H., Money (Chicago: The University of Chicago Press, 1957, 1922).

- Robertson, Dennis H., Essays in Monetary Theory (London: Staples Press Limited, 1940).
- Robertson, Dennis H., "How Do We Want Gold to Behave?", The International Gold Problem (London: Oxford University Press, 1932).
- Robertson, Dennis H., "Some Notes on Mr. Keynes General Theory of Employment", Quarterly Journal of Economics (1936-1937).
- Rothbard, Murray N., Man, Economy, and State (Los Angeles: Nash Publishing, 1962).
- Rothbard, Murray N., America's Great Depression (Los Angeles: Nash Publishing: 1963).
- Seligman, Ben, Main Currents in Modern Economics (Toronto: The Free Press of Glencoe, 1962).
- Schumpeter, Joseph, History of Economic Analysis (New York: Oxford University Press, 1954, 1976).
- Schutz, Alfred, "Common-Sense and Scientific Interpretation of Human Action", Collected Papers (Vol. I).
- Shackle, G. L. S., The Years of High Theory (Cambridge: Cambridge University Press, 1967).
- Wicksell, Knut, Interest and Prices (1898) trans. by R. F. Kahn (London, 1936; reprinted New York: A. M. Kelley, 1965).
- Wicksell, Knut, Lectures on Political Economy, 2 vols., 1901 and 1906 (New York: MacMillan Co., 1934).