From Bimetallism to Monetarism: the Shifting Political Affiliation of the Quantity Theory*

by

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***Abstract*:** The quantity theory of money was associated with the politics of the right in the '70s and '80s, but a century earlier, particularly in America, it had played an important part in the proposals of the Progressive left. These political associations are examined, and it is argued that a crucial factor in the quantity theory's apparent migration from left to right was its newly-forged links to the case for monetary policy rules in the interwar years. It was also in the 1930s that the endogenous-money Banking School doctrines deployed by anti-quantity theorists during the monetarist controversy first became mainly associated with the case for discretionary policy, rather than with support for the gold-standard rule, as they had been in earlier times. More generally, shifting scientific opinion about the causes of the Great Depression moved the political centre of gravity of monetary economics to the left from the 1930s onwards, and then back towards the right beginning in the '60s, creating an illusion of movement on the quantity theory's part.

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I

Introduction

Exponents of particular political agendas often deploy economic theories as tools of persuasion. That might mean that such theories are inherently politically loaded, or merely that politicians sometimes find them useful. In recent history, the quantity theory of money is inextricably linked to the politics of the right. The "monetarism" that was associated with the economic policies of Ronald Reagan and Margaret Thatcher had a version of that theory at its very heart. But a century before the monetarist controversy, there was a debate about bimetallism in which the quantity theory was an important theoretical tool of the political left, albeit a populist rather than a socialist left. In the following pages, I shall explore these associations. After a brief reminder of what the quantity theory of money says, I shall discuss its role in the monetarist controversy, and go on to describe the part it played in the debate about bimetallism. I shall then take up aspects of the development of monetary economics in the 1920s and early 1930s, when the quantity theory seems to have migrated from the left to the right of the political spectrum. I shall conclude with the suggestion that, in this story, influence has run primarily from broader developments in economics to politics rather than in the opposite direction, and that, as a result of these developments, the quantity theory, which has changed remarkably little over the years, has at various times been useful as a support for very different political positions.

II

Defining the Quantity Theory

It will be helpful to preface discussion of the quantity theory's political associations with a definition of the doctrine and a brief account of its place in monetary economics. Here we can hardly do better than begin with the following quotation from Irving Fisher's (1911) *Purchasing Power of Money*

> "The price level . . . normally var[ies] directly with the quantity of money (and with deposits that normally vary in unison with the quantity of money), provided that the velocities of circulation and the volume of trade remain unchanged, and that there be a given state of development in deposit banking. This is one of the chief propositions concerning the level of prices or its reciprocal, the purchasing power of money. It constitutes the so-called quantity theory of money. The qualifying adverb 'normally' is inserted in the formulation in order to provide for transitional periods or credit cycles." (Fisher 1911, p. 320)

The quantity theory is, then, a theory of the determination of the general price level, in which causation runs from the quantity of money to prices, and from velocity and the volume of transactions too, if these do not, as in the real world they usually will not, remain constant.

It is, however, a theory about equilibrium relationships, not about transitions between equilibria or cyclical fluctuations. As Fisher explained in Chapter 4 of his book, when dealing with the latter, allowance has to be made for feedbacks running from price level movements to deposit creation and destruction, which in turn affect prices in a recursive dynamic process, and these feedbacks are, strictly speaking, outside the scope of the quantity theory. Some monetary theories of the cycle are quite antithetical to the quantity theory, but others are firmly based on it. Fisher's (1923) "Dance of the Dollar" was one of these, and Ralph Hawtrey's (eg.1919) theory that made so much of the influence of the "inherent instability of credit" on the demand for traders' inventories, was another. In both approaches, the quantity theory provided not a complete explanation of fluctuations, but rather a starting point for the construction of such an explanation, and Fisher's views differed from Hawtrey's mainly in matters of detail. The principal, though not the only, difference between them was that Hawtrey preferred to work with the Cambridge income velocity version of the quantity theory, rather than Fisher's transactions velocity variant, a matter not so much of deep theoretical substance as of analytic convenience as Pigou (1917) had persuasively argued.

At first glance, it would seem that to accept Fisher's definition of the quantity theory excludes Milton Friedman from the company of its exponents, for he told readers of his (1956)

"Restatement" of it that

> "The quantity theory is in the first instance a theory of the *demand* for money. It is not a theory of output, or of money income, or of the price level. Any statement about these variables requires combining the quantity theory with some specifications about the conditions of the supply of money and perhaps about other variables as well." (Friedman 1956. p. 52, Friedman's italics)

The contradiction here is more apparent than real, however, more a matter of semantics than of substance.[1] The quantity theory as Fisher defined it permits velocity to vary, but its empirical validity nevertheless requires that those variations reflect some underlying behavioural stability. The essential difference between the quantity theory and the tautological equation of exchange is that velocity is not merely a name for the ratio of money transactions (or money income) to the quantity of money, but a structural parameter in its own right. Anything that can be said about the determination of velocity can, furthermore, be recast to characterise that of its reciprocal, what Wicksell (1898, p.52) called money's "interval of rest", and hence turned into a statement about the demand for money.[2]

The relationship that Friedman dubbed the quantity theory in 1956 has thus always been a *key component* of the theory that has traditionally been so labelled, even if this analytic truth did

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[1]Patinkin (1969, 1974) criticised Friedman for attributing the idea of the quantity theory as a theory of the demand for money to a Chicago tradition of the 1930s, and for failing to acknowledge a strong Keynesian influence on his formulation of the demand function in which opportunity cost variables play a critical role. Patinkin was surely right about both issues, but Robert Leeson (2000) has shown that the *Treatise on Money* played an unusually large role in the graduate monetary economics course which Friedman took from Lloyd Mints in 1932. It is, of course, in that book that Keynes developed liquidity preference theory, so Friedman's work may well, after all, have originated in Keynesian monetary theory to which he was, nevertheless, first exposed at Chicago.

[2]In this context, it is worth noting that Fisher (1911) contains an account of an empirical study carried out by Fisher of the money-holding behaviour of Yale undergraduates. In Laidler (1991) I have argued at some length the case for treating Cambridge and Fisherian approaches to the quantity theory as essentially the same.

not become fully evident until the late 19th century. And when Friedman and his associates went on to combine this demand for money function with specifications of the behaviour of the supply of money and other variables, it was to produce empirical and theoretical models in which variations in the money supply were the primary cause of variations in the price level (Cagan 1956, Lerner 1956, Friedman 1969), empirical models in which they were the primary cause of variations in money income (Friedman and Meiselman 1963), not to mention theoretical and empirical analyses of the cycle, very much in the Fisher-Hawtrey tradition, in which variations in money growth were the main causative variable, but in which considerable attention was also paid to the influence on that rate of money growth of feedbacks from the rest of the economy to the banking system (Friedman and Schwartz 1963a, b). No-one, in short, should feel uncomfortable about designating Friedman and his associates as quantity theorists.

III

The Monetarist Controversy

The quantity theory of money was peripheral to mainstream macroeconomics in the immediate wake of World-War-2. As late as 1960, prevailing orthodoxy had the IS-LM model of the determination of real income and employment as its centrepiece, and IS-LM had essentially nothing to say about the factors determining the behaviour of the price level.[3] This was to become a considerable drawback in an environment increasingly characterised by high employment and inflationary pressures. There were, of course, theories of inflation available with which IS-LM could be supplemented.[4] The '50s and '60s was the period of the cost-push versus demand-pull debate, and of analyses of the "wage-price spiral". To the extent that monetary expansion entered these discussion at all, however, it was as one potential influence among many on "demand-pull", and/or as a necessary condition for the "spiral" to continue

[3]Though as I have argued in Laidler (1999, ch. 13) the quantity theory survived in the LM curve of exogenous money-stock versions of the model, whence Friedman rescued it.

[4]Bronfenbrenner and Holtzman (1964) provided the standard survey of this material for contemporary readers.

without generating increasing unemployment. Even when the Phillips curve arrived on the scene and was formulated as a menu for policy choice in the 1960s, discussions about anti-inflation policies focussed not so much on picking an optimal point on the curve and using monetary policy to get there, as on finding means, usually involving structural policies, or wage-price guideposts, to shift it.[5]

In these years, that is to say, mainstream economic opinion was based on a general suspicion about the self-regulating capacities of market forces, and took for granted the appropriateness of an activist approach to macroeconomic policy in which monetary measures played at most a supporting role and often a purely passive one. Monetary policy was, furthermore, conceived of as a matter of control of interest rates and bank lending, not of the quantity of money. The British Radcliffe Committee's *Report* (Committee on the Workings of the Monetary System 1959) gave a particularly clear, albeit perhaps rather extreme, statement of this inherently anti-quantity theory position.

> "The fact that spending is not limited by the amount of money in existence is sometimes argued by reference to the velocity of circulation of money. . . .We have not made more use of this concept because we cannot find any reason for supposing, or any experience in monetary history indicating, that there is any limit to the velocity of circulation; it is a statistical concept that tells us nothing directly of the motivation that influences the level of total demand." (Para. 391, p. 133)

Thus, the Committee went on,

> "[w]e therefore follow Professor Kahn, in the evidence which he submitted to us, in insisting upon the structure of interest rates rather than some notion of the 'supply of money' as the centrepiece of monetary action; this does not however imply an absence of special interest in the activities of the banks. In the liquidity structure as we have described it, the banks hold a special position, in that they are, for most borrowers and for

[5]On the evolution of the Phillips curve as a policy menu, see Laidler (1997)

> most short-term purposes, much the most convenient institutional source of funds . . . We emphasise that any . . .special concern, and any . . . extreme measures, ought to be aimed at the banks as key lenders in the system, and not at the banks as 'creators of money'. It is the level of bank advances rather than the level of bank deposits that is the object of this special interest; the behaviour of bank deposits is of interest only because it has some bearing, along with other influences, on the behaviour of other lenders " (Para. 395, p. 134)

Now the Radcliffe Committee's views had deep roots in the Banking School tradition, which had, since the debates about Sir Robert Peel's 1844 Bank Charter Act, stressed the complexity of the structure of the banking system's liabilities, emphasised the strategic role of short-term credit offered by the banking system to the business community in linking that system to the real economy, and argued that what we would now call the money supply was an endogenous variable which mainly responded to, rather than set in motion, fluctuations in the price level.[6] Sometimes, the Banking School carried the latter argument to the point of embracing what would later be called the "Real Bills Doctrine", which held that, so long as the banking system confined its lending to good quality short term commercial bills, the quantity of money would automatically accommodate itself to the changing needs of trade without imparting either inflationary or deflationary impulses to the economy. Though the Radcliffe Report probably represents the fullest revival of these ideas in the mid-twentieth century, versions of them are also to be found in the American literature dealing with the "new view" of economics pioneered by John Gurley and Edward Shaw (1960) and James Tobin (1969) at about the same time.[7]

It was probably the fact of rising inflation in the late 1960s and early 1970s, and the failure of policies aimed at directly controlling wages and prices, that did most to redirect

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[6]The sections of the *Report* dealing explicitly with monetary policy were largely written by Richard Sayers, whose *Modern Banking*, a standard textbook of the time provides further evidence of a strong Banking School influence.

[7]See Perry Mehrling (1998) for a discussion of this "new view" and its relationship to earlier American work in the Banking School tradition in general, and the affinity between the work of Gurley and Shaw and Tobin in particular.

attention away from such ideas and back towards to the quantity theory as an explanation of inflation. Certainly that was the view of Harry Johnson, writing as early as 1971. He therefore predicted that what he called the "monetarist counter-revolution", to which Friedman's restated quantity theory was crucial, would peter out as inflation ceased to be a problem, and unemployment again began to attract attention. But inflation got worse and indeed persisted as the principal macroeconomic problem well into the 1980s. This fact did not, of course, in and of itself establish the correctness of the quantity theory as an explanation of the phenomenon, but it did provide more than ample opportunity for it to be re-established as a theory that potentially had something relevant to say about contemporary economic life.

There was, nevertheless, more to "Monetarism" than the quantity theory as an explanation of inflation That doctrine also encompassed a rather pervasive belief in the stability of the economy's private sector, a specific skepticism about the existence of any systematic inflation unemployment trade-off, and a preference for constraining monetary policy by legally binding rules which stood in stark contrast to the general acceptance of the virtues of discretionary policy among its opponents.[8] Furthermore, and central to the matters under discussion here, as James Tobin (1981) noted,

> "In public political and economic debate, monetarism has become a central part of conservative, that is to say nineteenth century liberal, ideology. These days the other principal elements are most easily summarised as oppositions to Government: to public operation or regulation of economic activities, to redistribution of income and wealth, to collective consumption and investment and to budget deficits" (p. 33)

And, he continued, "The logical connections of the monetarism of the 1960s to its ideological

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[8]There are many surveys of monetarism. Probably the most comprehensive and useful single source is Thomas Mayer et al. (1978). As readers of this volume will quickly discover, though the creation of this body of doctrine is popularly ascribed to Milton Friedman, this is a serious oversimplification. In particular the independent, sometimes parallel, contributions of Karl Brunner and Allan Meltzer, to which Mayer pays careful and well-merited attention should explicitly be acknowledged here. See Brunner and Meltzer (1993) for a comprehensive retrospective account of their contributions to monetary economics.

partners remains obscure. Their unity was less in logic than in the person of Milton Friedman, the powerful and persuasive protagonist of the several ideas." (p. 34) Though it is easy enough to agree with Tobin's description of the ideological company that the quantity theory had recently been keeping at the time he wrote these words, it is much harder to accept his attribution of this liaison solely to the influence of Friedman.

To begin with, the "monetarist-structuralist debate" about inflation and growth was well under way in Latin America by the early 1960s, before the monetarist controversy had gathered much momentum in the United States and Europe, and Friedman's work played only a peripheral role in this, particularly in its earlier period.[9] There is not space here to describe the Latin American debate in any detail. Suffice it to note that the characteristic monetarist position in that debate was that inflation was a consequence of monetary expansion, and that "[t]here are many things which can be said about inflation. but most of them have relatively little to do with economic growth. Likewise, of the many things which can be said about economic growth, few have much relevance for the study of inflation" (Harberger, 1964, p. 319), so that control of the money supply was the *sine qua non* of control of inflation. The structuralist side, on the other hand held that ". . . in an economy with major bottlenecks and weak export markets, the attempt to achieve price stability through monetary or fiscal means will result in unemployment, underutilisation of industrial capacity and slow growth" (Richard Ruggles 1964, p. 6). As a result, "[a] structuralist [who] would not be far from accusing a monetarist of holding to a quantitative theory of money" (Uri, with Kaldor, Ruggles and Triffin 1966) was also likely to hold that ". . .credit restrictions . . .should, as a matter of principle, be considered the worst machinery to stop inflation." (p. xv).

Thus, by the early 1960s, the quantity theory was recognised to be central to a debate which one commentator characterised as follows:

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[9]It is usual to attribute the coinage of the word "monetarism" to Karl Brunner (1968). I have not found this noun in the course of perusing literature on the Latin American debate, but the adjective "monetarist" is a commonplace therein from the early 1960s onwards. The connections between this earlier debate and the later controversy need more attention from historians of economic thought.

> "The monetarist-structuralist debate is more than the Latin American version of the international dispute concerning the efficacy of monetary controls in stabilizing the price level. It also involves a deep disagreement over the ability of the price mechanism to bring about a socially acceptable rate of growth and distribution of income in the Latin American context. Finally the temperature of the polemics tends to be heated by mutual accusations of political bias to a higher degree than is characteristic of professional debates elsewhere" (David Felix 1964, p. 371)

The temperature of those polemics only rose with the passage of time, moreover, and in due course affected the debate elsewhere, particularly in Britain. Thus, in 1971, Nicholas Kaldor, earlier a leading figure among advocates of "structuralism" in the Latin American debate, abused exponents of "The New Monetarism" that was then beginning to play a role in British debates in the following terms: "This new doctrine is assiduously propagated from across the Atlantic by a growing band of enthusiasts, combining the fervour of early Christians with the suavity and selling power of a Madison Avenue executive" (p. 78), while a little later, a leader among those exponents, Harry Johnson, described "What Passes for Economics in the English Establishment" as

> ". . .a synonym for amateur incompetence, invincible ignorance of the rudiments of economic logic, and willful disregard for the work of competent economists pursuing their subject in other countries - not to mention continual reassertion of non-facts about the British economy and economic behaviour itself"(1975, pp. 221-2)

The monetarist-structuralist debate achieved white heat in the wake of the 1972 overthrow of the Allende government in Chile by General Pinochet, and the immediate institution thereafter of monetarist policies; and at this point Latin American experience impinged directly on the American and British controversies, as a proximate consequence of Friedman's widely publicised, not to say much criticised. visit to Chile shortly after this event.[10]

[10]Friedman's side of the story is told in Friedman and Friedman (1998).

In the Latin American debate, skepticism about the efficacy of the price mechanism had distinctly socialist and sometimes Marxist roots, but in advanced western economies, it was widely spread across the political spectrum, being largely a product of the inter-war experience. It is therefore worth recalling that the single most influential substantive monetarist contribution of the 1960s was Chapter 7, "The Great Contraction", of Friedman and Schwartz's (1963a) *Monetary History of the United States*. This chapter argued that the Depression, which had begun in America in 1929 and had continued till the outbreak of the second world war, was the consequence, not of some fundamental flaw in the market economy, but of incompetent policies implemented by a Federal Reserve system which was deeply and balefully influenced by the same Banking School ideas that would later permeate the *Radcliffe Report*. Nor is it without relevance that Cagan's (1956) study of seven hyper-inflations, another critical empirical contribution to the monetarist case, seemed to show that these events were not the consequence instability inherent in the economy itself, but of monetary policy whose conduct had once again been heavily influenced by Banking School doctrine.

For those who accepted them, these results of Friedman and his associates undermined any general presumption that a market economy required widespread intervention to make it function. Hence, though they stopped far short of making a case against deficit finance, income redistribution, and all those other policies mentioned by Tobin (1981), they did seem to require that arguments for such measures be made on the specific merits of particular programmes. And, because many people did accept the above-mentioned results at their scientific face value, they shifted the centre of political gravity of monetary economics well to the right of its immediate post-World-War-2 location. To this extent, the quantity theory's right-wing associations during the monetarist controversy followed naturally from that theory's central place in a particular body of economic analysis that was then widely believed - rightly or wrongly is not the point - to be supported by historical and empirical evidence. This was more a case of economics affecting politics, than of politics affecting economics. And as the history of the monetarist controversy more generally shows, these associations were clearly a result of forces much deeper than the mere influence of "the person of Milton Friedman", as Tobin (1981) would have had it.

This cannot, however, mean that the quantity theory is always and everywhere inherently

supportive of conservative political doctrine, because a century earlier the bimetallist controversy generated just as much political heat as did the debate about monetarism, and, in this debate, the quantity theory was closely associated with the Progressive left. It is to this episode that I now turn.

IV

The Debate about Bimetallism

From the end of the Napoleonic Wars till the 1870s, the international monetary system was essentially bimetallic.[11] Britain, to be sure, was *de jure* on the gold standard, as *de facto,* was the United States in the years immediately preceding the Civil War, while many important economies, the various states of Germany for example, not to mention China and India, were on silver. The system as a whole, however, was dominated by the French "Law of the Year Eleven" which established a fixed price of gold in terms of silver at ratio of 15 ½ ounces to 1. Between its inception in 1803 and the early 1870s, the world market price of gold in terms of silver fluctuated within two per cent of this ratio, even withstanding the severe shocks imparted to it by the extensive gold discoveries of 1849-51.

Bimetallism broke down in the 1870s as a consequence of two major shocks, both political in origin. First, in the wake of the Franco-Prussian War, the newly created German Empire replaced its silver based monetary system with the gold standard, a measure which placed such a severe strain on the relative price of gold and silver that France, and countries linked to the French monetary system through the Latin Monetary Union, were faced with a choice between abandoning *de jure* bimetallism or finding itself *de facto* on an inflation-prone silver standard. Bimetallism was in due course abandoned by them as the decade progressed.[12] In 1873

[11]For a wonderfully clear and comprehensive account of the theory and history of bimetallism, See Angela Redish (2000)

[12]Velde and Weber (2000) argue that Germany's adoption of the gold standard increased rather than diminished the viability of bimetallism at 15 ½ / 1, and that its disappearance in the

the United States Congress administered the *coup de grace* to the old international monetary order by passing a Specie Resumption Act that put gold at the centre of the new system and gave no role to silver, a measure that was soon to be named by its political opponents “The Crime of 1873".

These events had two important economic consequences. First, silver currencies depreciated against gold, and second there began a twenty year period of slow deflation in gold standard countries. These two facts formed the background to the controversies between advocates of the restoration of bimetallism on the one hand, and defenders of gold monometallism on the other. In Britain, bimetallism drew most of its support from the business community, especially those of its members who thought that their competitiveness in international markets was threatened by the depreciation of silver currencies, particularly the Indian Rupee.[13] The focus among them was on the re-establishment of bimetallism as an international monetary system by agreement among the world’s leading governments. In the United States, such a viewpoint also had its supporters, but purely domestic issues had far more political importance there. Farmers in particular had debts fixed in nominal terms, but faced falling output prices and land values. In large numbers therefore, they supported the unilateral adoption of bimetallism by the United States, while silver mining areas of the country had their own quite obvious and direct interest in finding a place for silver in the monetary system.

In an 1897 book, Francis Amasa Walker, perhaps the most able advocate of international bimetallism in the United States, or anywhere else for that matter, described the intellectual scene in terms that can be abridged as follows:

1870s therefore constitutes a puzzle. This conclusion appears to be an artifact of their no doubt ingenious model, rather than being based on any traditional historical analysis, however.

[13]Michael Trautwein has reminded me that this does not mean that the falling prices of the 1870-1896 period did not have an effect on the development of the political left in Britain. It probably did, for these were years in which militant trade unionism became increasingly important in British industry. But bimetallism was not high on the policy agenda, if indeed it figured at all, of those who were involved in nurturing this development.

> "[T]hree classes of persons. . .have been wont to call themselves bimetallists. We have first the inhabitants of the silver producing states. . .silver coinage is with them not a financial but an industrial issue. . . [T]he second. . .consists of those. . .in favor of superabundant and cheap money . . .they are for depreciated silver, because . . . it is the next best thing (by which they mean what we would call the next worst thing) to greenbacks. . .what they really want is silver inflation.
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> The third element. . .believe that the system will at once avoid the evil of a restricted money supply, secure an approximate par of exchange between gold countries and silver countries, and promote stability in the value of money in the commercial world. (pp. 217-219)

All advocates of bimetallism put the quantity theory of money at the very centre of their case. At one level, it played a straightforward role. The aim was to influence the behaviour of the price level, and the quantity theory taught that this could be done by influencing the behaviour of the money supply. Deflation was due to the stock of gold growing at too slow a pace to keep up with the monetary demand for it, and the deficiency could be relieved by allowing silver to fill the gap.[14] As J. S. Nicholson (1895), a British advocate of international bimetallism, remarked:

> "[bimetallists] have argued that the supplies of gold have fallen off, that gold is hoarded by governments and banks, that silver has been demonetized, whilst on the other hand the volume of trade or the amount of the exchanges to be effected has increased. This explanation really rests on the quantity theory in its simple form" (p. 243)

Or, in the words of Henry Hucks-Gibbs, another important British bimetallist,

> ". . .so far, and only so far, as prices of commodities depend on the greater or less quantity of the mass of money in the world they will be steadier (as Mr. Jevons, himself no

[14]In the context of this paper, it is particularly noteworthy that Friedman (1990) re-examined the bimetallists' case with considerable sympathy, concluding that a such system probably would have been viable, and indeed might have produced a better price level performance than did the gold standard.

bimetallist, clearly shows in his *Money and the Mechanism of Exchange*, p. 138) when two metals form the measure of value than when one forms it." (Letter to *The Times*, May 23 1881, as reprinted in Hucks-Gibbs and Grenfell (eds.) 1886, p. 146)

In its then only recently developed stock supply and demand form, however, the quantity theory also played a more subtle part in the debate, being deployed against the claim that bimetallism was an unstable monetary system, inherently prone to swings between *de facto* gold or silver monometallism, depending upon the relationship between the metals' mint and market prices. The logic of this claim is simple enough. If, *but only if,* the market prices of the metals are parametric to their monetary use, then Gresham's Law will ensure that any bimetallic system is inherently on a knife edge. But quantity theorists, deploying supply and demand analysis could and did argue against this that if, on the other hand, the demands for the metals for monetary uses are sufficiently large relative to available quantities to affect their market prices, then bimetallism can be (within limits) a stable system in which that monetary demand can absorb the consequences of non-monetary shocks to their market, and perhaps a more stable system than one based on the sole use of either metal.[15]

The inherited wisdom of the monetary economics of about 1870 was indeed that the metals' market prices were independent of their uses as money. The quantity theory had played at best a supporting role as a short run adjustment mechanism in the Classical economics of Adam Smith and Ricardo, where the long-run purchasing power, the "natural value", as it was habitually termed, of metallic money or of convertible paper money had been held to depend upon the cost of production of the metal in question. It was only in the 1870s that Alfred Marshall worked out a framework that took account of the facts that cost of production varies with the *flow* of newly produced metal, rather than with the magnitude of its already existing *stock,* that the stock in question was large relative to that flow and extremely durable into the bargain, and that the demand for that stock was dominated by monetary uses. This framework both exposed the inadequacy of the cost-of-production theory of value as a theory of the price level, and elevated the quantity theory to a position that it had never previously occupied, namely

[15]Perhaps the fullest exposition of this position in contemporary literature is that given in Fisher (1911, Ch. 7) which sets out analysis which he first developed in Fisher (1894)

as a general theory of the price level, within which cost of production was but one, usually minor and remote influence operating on the supply of money.[16] As Walker summarised matters: "But it is in the case of the precious metals, which might, with a view to any brief period be called practically indestructible, that present cost of production has the smallest influence upon value." (1897, pp. 26-7)

Defenders of gold monometallism, such as Robert Giffen in Britain and the founder of the Chicago economics department, J. Laurence Laughlin, in the United States, understood the key role played by the quantity theory in the case for bimetallism, and did their best to undermine it.[17] Giffen, for example, affirmed that the prices of the precious metals were indeed parametric to their monetary uses:

> ". . .the chronic ratios of exchange between gold and silver and other commodities are not determined by any special qualities these metals have as money. It is the range of prices as part of a general economic condition which helps to determine the quantity of money in use, and not the quantity of money in use that determines prices" (1892, p. 99)

Hence a monetary rule requiring the maintenance of convertibility into just one metal, namely gold, was the only sound basis for the monetary system. Laughlin's position was the same.[18] He argued that, under the gold standard, the price level was the outcome of factors affecting both the cost of production of gold and goods so that "[t]he general level of prices, then, supposing that the agencies directly touching gold are constant, is governed by the high or low expenses of production of goods" (1903, p. 362) . Moreover,"[t]he quantity of the media of exchange is a result, not a cause, of the evaluation between gold and goods, and therefore cannot have been the means of fixing prices." (p. 362). In defence of this position he invoked ". . .the doctrines known as the Banking Principles, [in which] we find the body of thinking which had grown up

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[16]The main purpose of Laidler (1991) is to trace the evolution of these ideas in detail.

[17] On this, see also Laidler (1991 pp. 159 et seq.)

[18]See Girton and Roper (1978) for a more sympathetic treatment of Laughlin's views than they get here.

opposed to the general tenets of the quantity theory . . .” (p.263).

Evidently, then, supporters of sound money during the bimetallic controversy embraced essentially the same anti-quantity theory position on the relationship between money and prices that, as we have already seen, would later underpin the policy framework which monetarism opposed a century later. Profound differences between these two anti-quantity-theory groups nevertheless need explicit note. Giffen and Laughlin were devoted supporters of laissez-faire underpinned by a gold-standard rule for monetary policy, while the leading lights of the Radcliffe Committee were exponents of discretionary policy over a wide area. Thus, if the quantity theory migrated from the political left to the right in the years between these two debates, then Banking School doctrine just as surely made its own simultaneous journey from the right to the left.

Now it is hard to think of an international bimetallic system as a politically radical arrangement. Inasmuch as it involved government intervention to fix a relative price, it was indeed, as Giffen complained, “a departure from the Free Trade principle which [in his opinion] Governments ought to follow in all commercial matters” (1886, repr. 1892 p. 49), and it did to that extent involve a form of “managed currency” which Giffen considered “an unsuitable business for a State to undertake”; but its adoption would have still involved a commitment by governments to a policy rule, albeit a less constricting one than the gold standard. Had such a system been adopted in the 1890s, moreover, that would have involved not some bold new policy experiment but a formal return to arrangements that had not so long before been informally in place. The quantity theory’s association with radical politics at this time did not stem from its role in making the case for international bimetallism, however, but from the use made of it by American advocates of unilateral bimetallism who were firmly on the “Progressive” side of the political spectrum.

William Harvey’s notable polemic *Coin’s Financial School* (1894), one of the seminal statements of this case, was in its own way just as reliant on the “quantitative theory of money”, as the doctrine is there referred to, as anything that Walker wrote, albeit a rather less sophisticated version of the theory, as one would expect from an author who was a pamphleteer

rather than an academic economist. But in Harvey's work, the quantity theory was enlisted in a political campaign on behalf of agriculture and labour against industry and finance. For him, the quantity theory taught that "[t]he value of the property of the world, as expressed in money, depends upon what money is made of, and how much money there is" (p. 187), that "[t]he same law of demand and supply applies to [money] as applies to any specific class of property", and it implied that bimetallism, if unilaterally adopted in the United States, would permit faster money growth and bring deflation to an end, and, as he put it, "stop this legalized robbery, that is transferring the property of the debtors to the possession of the creditors"

He scorned proposals for international bimetallism as ploys on the part of the financial community to prolong the *status quo*. "To that end [the money lenders in the United States] organize international bimetallic committees and say, 'Wait on England, she will be forced to give us bimetallism' Vain hope! Deception on this subject has been practised long enough upon a patient and outraged people" (p. 223) Indeed, "Whenever property interests and humanity have come into conflict, England has ever been the enemy of human liberty" (p. 22); but, Harvey went on, "The United States commands the situation, and can dictate bimetallism to the world at the ratio she is willing to fix." (p. 234) And he lampooned such American supporters of the gold standard as Laughlin, to whom he referred as ". . .the professor in a chair of political economy, endowed with the money of bankers, [whose] mental faculties had trained with his salary" (p. 174)

There is, in short, no questioning Harvey's credentials either as an exponent of the quantity theory or as a political radical, and his book sold in the tens of thousands. Moreover, its influence is clearly evident in the policies soon to be espoused by William Jennings Bryan in his successful bid for the Democratic Party's presidential nomination in 1896. In his famous speech to the Democratic convention in that year, Bryan asserted that "if protection has slain its thousands, the gold standard has slain its tens of thousands" and noted that "Mr McKinley was nominated in St. Louis upon a platform which declared for the maintenance of the gold standard until it can be changed into bimetallism by international agreement". He then excoriated the Republican candidate (and future President) in the following terms.

> "No private character, however pure, no personal popularity, however great, can protect from the avenging wrath of an indignant people a man who will declare that he is in favour of fastening the gold standard upon this country or who is willing to surrender the right of self government and place the legislative control of our affairs in the hands of foreign potentates and powers" (p. 25)

Like Harvey, Bryan was deeply hostile to the banks' role in the monetary system of the day. He argued that

> ". . .the right to coin and issue money is a function of government. . . . Those who are opposed to this proposition tell us that the issue of paper money is the function of a bank, and that Government ought to go out of the banking business. I . . .tell them . . .that the issue of money is a function of government, and that banks ought to go out of the governing business" (p.22)

Moreover, he regarded the unilateral adoption of bimetallism in the United States as an application of an altogether deeper political principle.

> "There are those who believe that, if you will only legislate to make the well-to-do prosperous, their prosperity will leak through on those below. The Democratic idea, however, has been that if you legislate to make the masses prosperous, their prosperity will find its way up through every class which rests upon them.
>
> You come to us and tell us that the great cities are in favor of the gold standard; we reply that the great cities rest upon our great and fertile prairies. Burn down your cities and leave our farms and your cities will spring up again as if by magic; but destroy our farms and the grass will grow in the streets of every city in the country" (p.27)

And so, he famously concluded

> "Having behind us the producing masses of this nation and the world, supported by the commercial interests, the laboring interests, and the toilers everywhere, we will answer

> their demand for a gold standard by saying to them: You shall not press down upon the brow of labour this crown of thorns; you shall not crucify mankind upon a cross of gold" (p. 280)

It was this Populist version of bimetallism, with its inflationist sub-text, that Francis Walker was distancing himself from in the passage quoted earlier, but quite evidently, the quantity theory was deeply embedded in it. That is why, as Fisher later noted in the preface to *The Purchasing Power of Money*,

> "The attempts by promoters of unsound money to make an improper use of the quantity theory - as in the first Bryan campaign - led many sound money men to the utter repudiation of the quantity theory The consequence has been that, especially in America, the quantity theory needs to be re-introduced into general knowledge." (1911. p. viii)

He suggested that, in reconstructing the quantity theory in that book, "I have the satisfaction of finding myself for once a conservative rather than a radical in economic theory". But the conservatism to which he referred here was of a scientific nature. The quantity theory was to keep its distance from conservative political causes for a little while longer, as we shall now see.

V

The Inter-war Years

The international gold standard, whose piecemeal creation in the 1870s had prompted the bimetallic controversy, survived until the beginning of the First World War, but not because of any intellectual victory on the part of its supporters. Rather the discovery of the cyanide process made it possible economically to exploit South African gold deposits from the mid-1890s onwards, and this, along with gold discoveries in the Yukon at about the same time, was enough to set the world's supply of monetary gold growing more rapidly than real output. Two decades of deflation came to an end, a mild inflation which would persist until 1914 began, and

bimetallism lost its main political rationale.

It is also worth noting that the leading monetary economists of the era, Marshall, Fisher and Wicksell, each according to his own lights a quantity theorist, had supported neither side in the bimetallic controversy. All three favoured price-level stability as a policy goal, but all three thought it possible to improve upon both gold and bimetallic standards to provide it.[19] Thus, despite the failure of the bimetallic cause with which it had been intimately associated, the quantity theory remained associated with skepticism about the gold-standard policy rule, and hence with what it is fair to call "progressive" thought on economic policy. It continued to occupy such a position after the First World War. This is quite evident, for example, in the well-known role it played as the intellectual foundation for Keynes's discussion, in the *Tract on Monetary Reform*, of the potential for conflict between the pursuit of domestic price stability and exchange rate stability, and his preference for the former in the event that a choice here should become necessary. And a monetary approach to the analysis of macroeconomic stability that started from the quantity theory also underpinned Hawtrey's less radical, but nevertheless novel, proposals for re-establishing an international gold standard under which monetary measures would be co-ordinated among countries with a view to giving the stabilisation of prices, income, and employment pride of place on the policy agenda.[20]

Even so, in Europe in particular, the quantity theory was beginning to lose intellectual ground in the 1920s. Though Wicksell (1898) might have intended to do no more than extend the quantity theory to cope with contemporary institutional realities when he developed his famous "cumulative process" analysis, the longer run effect of his efforts on monetary economics was to shift its emphasis from the quintessential concern of the quantity theory with the relationship between money and the price level, towards the influence of the rate of interest on saving and

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[19] Marshall (1887) favoured symetallism supplemented by widespread voluntary indexation of capital and labour market contracts, Fisher (1911) suggested indexing money itself by way of his compensated dollar scheme, while Wicksell (1898) proposed an international paper money whose value would be stabilised by interest rate movements co-ordinated among the world's central banks. I have discussed these matters in more detail in Laidler (1991)

[20] These were embodied in the Genoa Resolutions of 1923, but came to nothing.

investment, and hence to questions about the inter-temporal allocation of resources. This theme was, as Leijonhufvud (1981) emphasised, to become central to what we now call macroeconomics in the interwar years. And the element in Wicksell's work that proved seminal here was the "pure credit economy model" of Chapter 9 of *Interest and Prices* in which bank liabilities adjusted endogenously, even passively, to prices. In the hands of both Austrians such as Mises and Hayek and of the Stockholm School, Wicksell's work became the starting point for competing non- even anti- quantity theory analyses of the fundamental causes of cyclical fluctuations which were associated with opposite ends of the political spectrum.[21] Interacting with this powerful internal dynamic element in the development of economic theory, moreover, was the fact that, once the post-war hyper-inflations had come to an end, chronically high unemployment became the key policy question in Europe; and by its very nature as a theory of the price level, the quantity theory had nothing direct to say about this matter.

Matters were somewhat different in American monetary economics.[22] There, gold convertibility had been maintained during the War and the 1920s were, overall, a decade of prosperity. There was also a relative lack of explicit interest in inter-temporal allocative questions in general, and a slowness to appreciate the importance of Wicksell's ideas in particular, among mainstream American economists. After the bimetallic controversy, their discussions had turned to issues of central banking, and the Federal Reserve system had been established in 1913. It was natural enough, then, that the 1920s would find American monetary economists debating the role of this new institution, and that the quantity theory would play a part in their discussions. Furthermore, at its onset after 1929, the Great Depression looked to

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[21]For a discussion of the contributions of these two groups, and the relation of their work to Wicksell's, see Laidler (1999, Chs. 2 and 3)

[22]I have discussed the role of American monetary economics in the interwar years, and its relationship to the development of macroeconomics more generally, in Laidler (1999, Chs. 9 and 10) In (1998) Mehrling proposed a more complex classification for analysing the development of American monetary economics than that which I adopt in this section of the current paper, in which advocates of the quantity theory and banking school positions are further subdivided according to whether they supported policy rules or discretion and/or active or passive approaches to monetary policy. I intend no criticism of Mehrling's taxonomy in expressing the hope that the simpler one adopted here is adequate for the purposes of this paper.

most American observers like a particularly bad cyclical downturn, and monetary theories of the cycle of which the quantity theory formed a key component. not to mention policy nostrums derived from them, figured prominently in the literature it prompted.

On the whole, however, even though the quantity theory was still not associated with conservative causes in the United States, its connection with the radical left that has been so close in the 1880s and '90s had been weakened. That was because the boundaries within American economics and politics had shifted. The quantity theory continued to occupy an important position in neoclassical monetary theory, but in America in the '20s, neoclassical economics was challenged from the left by Institutionalism, in particular by the radical version thereof originally developed and propagated by Thorstein Veblen (eg.1904) and later by such advocates of wholesale economic planning as Rexford Tugwell (eg Tugwell, Munro and Stryker 1925). In the monetary field, moreover, the underconsumptionism of Foster and Catchings (eg.1923) had taken over as the preferred intellectual basis for inflationist policy proposals.[23] When compared to these doctrines, even Irving Fisher's quantity theory based campaign to subject the Federal Reserve system to a legislated price stability mandate, let alone Allyn Young's support for cautiously activist stabilization policy based on his own adaptation of Hawtrey's ideas to American conditions, were very much in the middle of the road. The word "middle" is not used lightly here, however, for the same body of economics that had underpinned the conservative case for gold monometallism in the 1890s had also provided much of the intellectual basis for the Federal Reserve Act of 1913, and it remained extremely influential throughout the 1920s and early '30s, not least at the Federal Reserve Board in Washington.[24]

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[23]It is worth noting that Paul Douglas's 1932 book *The Coming of a New Party* embraced both planning and underconsumptionist arguments for fiscal and monetary expansion. I suspect that Simons' (1934) *Positive Program for Laissez-faire* should be read as an attack on Douglas, though I have no direct evidence to support this conjecture.

[24]Note that when Mehrling (1997) discussed Young's work as seeking a "middle ground" in monetary economics, the two extremes that he had in mind were represented by this conservative group's Banking School ideas, and Fisher's quantity theory. From the point of view of analysing the development of competing strands in what was to become American neo-classical monetary economics, this classification seems to me to be absolutely appropriate, but when the economic basis of inflationist and more generally interventionist politics is the subject of discussion, as it is in this paper, it is necessary to recall the existence of radical

The early1930s in the United States are sometimes thought of as being a time when financial interests, supported by influential neoclassical economists, opposed any attempts to stabilize the "Great Contraction", but finally met their political nemesis with the coming of the Roosevelt Administration and its "New Deal". This is, of course, a gross over-simplification of events, but like most such over-simplifications there is a core of truth lying behind it. There was indeed much opposition to policy activism from the financial community in the early 1930s, and it did find support among economists. These were not, however, neoclassical adherents of the quantity theory, but the anti-quantity theory supporters of the gold standard and the real bills doctrine such as Benjamin Anderson, Henry Parker Willis, and indeed their mentor Laughlin himself who remained intellectually active until his death in the early 1930s.[25] Setting out this group's position in 1933, Laughlin criticised "the English writers of today" for being "imbued with a strong belief in the quantity theory" (p. 229) . Here he singled out Keynes as someone who ". . .had . . . gone to extremes in supporting inflation and the abandonment of the English gold standard" (p. 231).[26] For Laughlin, the Depression was the result of "a debauch in credit and overspeculation" (p. 275) and recovery depended upon a revival of "production of saleable goods which is the only way of developing purchasing power" (p. 273). "In reality, demand comes from other goods before money or credit enters on the scene" (p. 220) and "to increase the medium of exchange as a remedy when there are less goods to be exchanged is fatuous" (p. 285)

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institutionalism and underconsumptionism.

[25]As I have noted in Laidler (1999, ch. 10) there is a loose relationship between the views of this group and those of such "Austrian" theorists based at the London School of Economics, as Friedrich von Hayek (1931) and Lionel Robbins (1934). However, these Americans lacked the well worked out theory of the cycle, deeply rooted in capital theory from which the Austrians derived their policy conclusions. It is worth noting in passing here, that Friedman (1974) singled out the London group as exponents of an atrophied version of the quantity theory to which he contrasted favourably the version in circulation in Chicago at that time. It is, of course, quite erroneous to attribute any shape or form of quantity theory to this group. They were totally and explicitly opposed to it.

[26]But he explicitly excepted T. E. Gregory, then at the London School of Economics who was deeply influenced by Austrian ideas, without being entirely under their influence. It is not, perhaps, co-incidental that Gregory was an authority on the work of Thomas Tooke, the leading figure in the Banking School. I am grateful to Robert Leeson for drawing my attention to Laughlin (1933) from which this and other quotations used here are drawn.

This all too influential viewpoint was opposed by many, perhaps most, American academic economist at the time. The early 1930s were a time of widespread support among them for activist expansionary monetary, and indeed fiscal, policies, much of it based, if not directly on the quantity theory, then at least on an analysis of the cycle that derived from that doctrine. Lauchlin Currie (1934) was one of the most coherent advocates of such measures, and his analysis was essentially Hawtreyan at this juncture, yielding views on the causes of and remedies for the Great Contraction largely anticipating those later set out by Friedman and Schwartz (1963a).[27] His characterisation of the place of the quantity theory in all this was as follows:

> "In the past an altogether disproportionate amount of importance was attached to variations in the supply of money. In consequence of the almost universal abandonment of the quantity theory of money, however, there is a danger that the pendulum may swing too far in the opposite direction so that the effect of variations in the supply of money may be unduly minimized" (p. 3)

Currie was more than just a quantity theorist then, but he was also a vigorous and explicit critic of the real bills doctrine in general, and more specifically of the role it had played in both the Federal Reserve system's policies of 1927-28, which were aimed at curbing the supply of bank credit for speculative purposes but had resulted in slowdown in money growth to which Currie attributed the onset of the contraction, and in creating what he termed the system's "almost complete passivity" thereafter. Small wonder, then, that his book was the subject of a scathing review by Anderson (in the *New York Times Annalist* May 3, 1935) which began by branding Currie as "the uncompromising advocate of an extremely tight and inflexible version of the quantity theory" (p. 662) and went on, among other things to criticise him for holding a "[t]heory opposed to all accepted principles of banking" (p.662), of displaying a "complete misunderstanding of 1927-29 developments" (p. 662) and "inadequate knowledge of actual banking practices" (p.670), while indulging in "the fallacy of cheap money as a substitute for economic readjustment"(p. 670); and so on.

[27]I have discussed the inter-connections here in some detail in Laidler (1993)

The important point about Currie in the context of this paper is not only that he attracted an attack from Anderson for having offered a critique of Federal Reserve Policy that derived from a version of the quantity theory, albeit a much more subtle one than Anderson gave him credit for. It is also that his work attracted the attention of Jacob Viner of the University of Chicago, who invited Currie to join his "Freshman brains-trust" in Washington, thus setting in motion a career that quickly saw him become economic advisor to Marriner Eccles at the Federal Reserve Board, and then to President Roosevelt himself. To the extent that association with the inner councils of the "New Deal" confers progressive credentials on an economic theory, the quantity theory was still well endowed with them in the mid-1930s.

The landscape of both economic policy and economic theory was, however, changing rapidly at that time, and this would soon affect the location of the quantity theory in the political spectrum. To begin with, the influence of Laughlin and his associates waned quickly as the decade progressed. As with the intellectually related, albeit more rigorously based, policy pessimism of Austrian business cycle theorists, there were few takers in the intellectual market place for economic ideas that implied that a policy of waiting out the depression was the only viable option. Second, as the depression continued in the United States, an ongoing build up of free reserves in the Banking system convinced many who would earlier have given pride of place to expansionary monetary measures that these were no long likely to be effective. Homely comparisons of such policies to "pushing on a string" came into vogue, and the emphasis among policy activists shifted to the fiscal side. Here it is significant that Currie himself was one of the architects of the increases in required reserve ratios that were instituted in 1937 with the aim of mopping up excess liquidity in the banking system that, it was feared, might at some future time provide the basis for excessive and inflationary money creation. Though Currie would hardly have entertained such fears had he not retained some residual belief in a version of the quantity theory, it is equally clear that he had come to believe that, by 1937, the monetary authorities no longer retained control over the supply of money, independently of factors affecting the demand for it.[28]

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[28]At this point, then, Currie's interpretation of monetary factors in the 1930s diverges sharply from that of Friedman and Schwartz (1963a), for they held the slowdown in money growth that followed these measures responsible for the economy's sharp contraction in 1938.

But other exponents of the quantity theory had also given up on it before 1937, crucially that *bete noire* of Laughlin and his associates, John Maynard Keynes. The (1923) *Tract on Monetary Reform* had rested on a straightforward and quite unoriginal exposition of the Cambridge version of the quantity theory, but in the *Treatise on Money* (1930) its author had sought to integrate that theory with a Wicksellian analysis of the influence of the rate of interest on savings and investment. Though this (not altogether successful, but that is another story) effort had left Keynes a firm advocate of expansionary monetary policy based on open market operations as a remedy for unemployment, and hence as anathema to Laughlin *et al.* as ever, the critical variable which he sought to affect was no longer the quantity of money, nor its rate of growth, but rather the level of the long run rate of interest. By 1930, Keynes's view of monetary policy's transmission mechanism had thus shifted away from anything that could be associated with the quantity theory towards a Wicksellian mechanism whose critical linkages ran through bank rate to the long interest rate and thence to investment spending, with the supply of money adjusting passively to maintain equilibrium with its demand.

> "Given associated changes in the total quantity of money and in the effective level of bank rate respectively, it is via the latter that the ultimate modification in the purchasing power of money is generated, looking at the problem dynamically. The order of events is *not* that a change in bank rate affects the price level because, in order to make a new bank rate effective, the quantity of money has to be altered. It is, rather, the other way around. A change in the quantity of money affects the price level in the first instance because. . . this means a bank rate which will change the market rate of interest relatively to the natural rate . . .
>
> If we start from a position of equilibrium, then - provided that efficiency earnings are stable - the condition for the continued stability of price levels is that the total volume of money should vary in such a way that the effect of the corresponding volume of bank lending on the market rate of interest is to keep the volume of new investment at an equality with current saving. (1930, I, p. 197, Keynes's italics)

Currie blamed this contraction on an inadvertent tightening of fiscal policy.

Dennis Robertson (1931) suggested that Keynes was here dealing with a "hen and egg" problem of no importance, but this is surely not so. To emphasise the rate of interest and volume of bank lending as the critical variables for monetary policy, and to treat the quantity of money as passively adjusting to validate their consequences, is to adopt exactly the view of monetary policy's workings that later appeared in the *Radcliffe Report*, which, as I have already noted, could trace its ancestry to the anti-quantity theory position of the Banking School and of the gold monometallists of the 1880s and '90s. Given Keynes's earlier credentials as a quantity theorist, this was a step of great significance in the development of monetary thought, and one of lasting importance, the use of an exogenous money supply assumption at certain points in the *General Theory*, notwithstanding.[29] And it should be noted that Keynes's version of this theory, just as surely as Laughlin's, can be traced to the Banking School, this time by way of Wicksell who had, like Laughlin, been deeply influenced, though in a very different direction, by Thomas Tooke , perhaps the leading exponent of Banking School ideas in the 1830s and '40s.

Now what has been described here was a migration from the political right to the left on the part of the quantity theory's rival, the endogenous money doctrine of the Banking School. This idea's links to the political right had mainly been secured by its affiliation with the gold standard during the bimetallic controversy, and even into the 1930s in American monetary thought. The combination of Wicksell's espousal of what amounted to endogenous money in his "pure credit economy" model, however, along with his simultaneous advocacy of managed inconvertible currencies had already put this alliance under stress in the 1890s, and a clear-cut break came when Keynes, who had always been skeptical of the gold standard, embraced the Wicksellian viewpoint in (1930) just prior to Britain's abandonment of gold convertibility in 1931. Even so, the story of the shifting political associations of monetary theories in the 1930s also involves a more or less simultaneous journey towards the right on the part of the quantity

[29]The latter is most conspicuous in the *General Theory* where the efficacy of money-wage cuts is discussed as an hypothetical rather than a practical policy, and as has often been noted, discussions of the monetary system are conspicuous by their absence from the *General Theory*. That is why I one of those who believe that, overall, the treatment of this topic in the *Treatise* was in no way superceded in the later book. And, it should be recalled, the Radcliffe Committee explicitly invoked Richard Kahn's evidence as the immediate authority for their own views on the issue.

theory. In the 1920s, the quantity theory had provided the underpinnings of Irving Fisher's campaigns for imposing by act of Congress a price stability rule on the Federal Reserve system and a crucial step in the quantity theory's rightward move was taken when this idea of subjecting monetary policy to a legislated rule was adopted by members of the economics department of the University of Chicago in the early 1930s, and in particular by Henry Simons.[30]

The association of a distinctive "Chicago Tradition" with the quantity theory in the early 1930s, the alleged imperviousness of that tradition to "Keynesian" ideas later in the decade, as well as its influence on Friedman's monetarism have been much debated in recent years, so suffice it here simply to state those of my own views on these matters that are relevant to the current discussion: there was little in the way of positive analysis that was unique to Chicago in the early 1930s; Simons' statement of the case for a legislated monetary policy rule as an integral component of his (1934) *Positive Program for Laissez-faire,* however, established the quantity theory in a distinct and novel ideological context; and finally, Simons work was influential in shaping the ideas of the later Chicago School of which Friedman's monetarism would in due course become an important component.[31]

Even so, the populist, as opposed to conservative in the traditional sense, characteristics of Simons' (1934) *Program* must be noted. There was much in it that would have appealed to the Progressives of an earlier era, and which even perhaps derived from their agenda, but which was missing from the body of doctrine with which Friedman's monetarism would later be associated. Simons favoured, for example, the vigorous pursuit of anti-trust policies, as well as serious income redistribution through a tax-transfer system.[32] And this is not to mention the fact that

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[30]Initially Simons had opted for a constant money supply rule, but shifted to a price level rule in (1936). His failure to refer to Fisher as an earlier exponent of this idea in the latter paper was surely not as reprehensible as it might now look, for the simple reason that Fisher's advocacy of it would have been common knowledge to Simons' intended readership.

[31]I have developed and defended these positions at greater length in Laidler (1993, 1997 and 1999, ch. 10).

[32] Tobin (1981) noted these differences between Simons' agenda and Friedman's. Perry Mehrling first drew my attention to the relationship of Simons' policy program to populist ideas.

another element in his *Program*, which did find its way into Friedman's post-war work, was the institution of 100 per cent reserve requirements against chequable bank deposits, a measure which would have had the effect of transferring the prerogative to create money from the banks to the government, just as those earlier Progressives had also advocated. If Simons' agenda was no longer classifiable as leftist in the '30s and thereafter, that was more because a large segment of the left had adopted new goals and analytic tools by then than because Simons was opposed to all of the populist ideas with which the quantity theory had been associated forty years earlier.

VI

Conclusions

The foregoing story is easily enough summarized. The same, or at least a very similar, quantity theory of money that was closely associated with rightist policies in the 1970s and 1980s was located at the other end of the political spectrum about a century earlier. It seems to have changed the political company its kept in the 1930s, just when the anti-quantity theory endogenous money doctrines of the Banking School made precisely the opposite change. But there is nothing in this story as I have told it to suggest that this shift reflects an influence of politics on economic analysis. The logic of the quantity theory was refined between 1880 and 1980 to be sure, but it was not radically altered; the predictions which it yielded about the relationship between monetary policy and inflation, and monetary policy and cyclical fluctuations, remained more or less the same, and just as testable (in principal at least) at the end of the period as at the beginning; and the same can be said of Banking School ideas too.

What shifted over the period was the political centre of gravity around which monetary policy debates were balanced, and this shift itself was brought about in part by changes in the

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I also owe to him the *caveat* that Simons' populism should be explicitly distinguished from altogether darker, even proto-fascist, versions of such doctrine, associated for example with the likes of Father Charles Coughlin. These attracted much support in the 1930s. Reeve (1943) is a useful source of information on these matters.

broader body of economic theory. In the final quarter of the 19th century, conservative conventional wisdom in monetary matters had supported the gold standard as a means of constraining attempts to manage the monetary system on the part of governments and banks, and not far below the surface of this wisdom there lay the idea that the "natural" value of gold was parametric to its monetary role. At that time, however, the quantity theory was already well on its way to displacing the cost of production theory of the price level within the corpus of economic analysis, and it was profoundly subversive of this conventional wisdom, with which banking School ideas had become closely interwoven.

Not only did the quantity theory seem to provide an apparently simple guide as to how the monetary system might be managed, but it even suggested that, inasmuch as the monetary demand for gold was a major influence on its price, the gold standard was itself a particular form of managed system. The replacement of the cost of production theory by the quantity theory, and the questions this raised about the scientific soundness of a body of conventional policy doctrines based on it was, in and of itself, enough to make the quantity theory attractive to political radicals, not least the American Progressives who enlisted the quantity theory in support of a particular, and probably inflationist, form of managed money.

No doubt Irving Fisher's (1911) efforts to restore respectability to the quantity theory among advocates of "sound money" had some of the effect he desired in breaking its association with radical politics, but as support for the gold standard faded in the 1920s and 1930s, the quantity theory needed only to stand still to appear to be moving rightward. The inter-war years were the time in which macroeconomic analysis focussed increasingly on matters of inter-temporal allocation, rather than the determination of the general price level, and it did so against a background of apparently chronic failure of market mechanisms to generate full employment. Keynes's *General Theory* and the IS-LM model that was extracted from it were in no way innovative as far as economic policy was concerned, but they gave an *ex post* analytic seal of approval to a policy agenda that was already well established by 1936, and whose activism would have seemed extreme to the point of being unimaginable to most economists before 1914. Moreover, monetary policy had only a minor role to play on this agenda, so it provided a natural home for passive Banking School ideas on its role. The widespread acceptance of these

theoretical developments in turn shifted the scientific middle ground of economic thought even further to the interventionist left of the political spectrum and only served to heighten the illusion of a rightward movement on the part of the quantity theory, which was antithetical to the idea that monetary policy was unimportant, and had in any event by then been adopted by advocates of rule guided policies.

In short, in my version of this story, it was the development of economic thought that influenced politics rather than the other way round, and, almost as a side effect, created the illusion of political migration on the part of the quantity theory and the opposing ideas of the Banking School. But, I hasten to add, I am sure that there are other ways of telling the same tale to a different effect. Though I hope that some readers will find my narrative convincing, I am even more anxious that those who do not will in due course construct alternative interpretations of the episodes I have described here, for it is only by debating diverse views that we will come to a deeper understanding of the complicated history of our discipline.

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