# What is Money?

*Edited by*
John Smithin

Routledge International Studies in Money and Banking

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# What is Money?

This volume provocatively rethinks the economics, politics and sociology of money and examines the classic question of what money is. Starting from the two main alternative views of money, as either a neutral instrument or a social relation, *What is Money*? presents a thematic, interdisciplinary approach which points towards a definitive statement on money.

Bringing together a variety of different perspectives, this work collects the latest thinking of some of the best-known scholars on the question of money. The contributors are Victoria Chick, Kevin Dowd, Gilles Dostaler, Steve Fleetwood, Gunnar Heinsohn, Geoff Ingham, Peter Kennedy, Peter G.Klein, Bernard Maris, Scott Meikle, Alain Parguez, Colin Rogers, T.K Rymes, Mario Seccareccia, George Seigin, Otto Steiger, John Smithin and L.Randall Wray.

The book will be of interest to students and researchers in political economy, monetary policy, the history of economic thought and Post Keynesian economics.

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John Smithin

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# 1 What is money?

## Introduction

*John Smithin*

From a commonsense point of view, economic activity in the capitalist or market economy is all about money: making money, earning money, spending money, saving money, and so forth. It is true that recent changes in computer technology have led to discussions of a 'cashless society' or 'virtual money'. However, it is fairly obvious (except perhaps to writers of 'op-ed' articles in the popular and financial press) that this is a change of form rather than substance. All that is implied by a cashless society is that it is possible to envisage a payments technology which makes no use of bits of paper and small metal discs. However, the cashless society is hardly 'moneyless', far from it. The purpose of e-business or e-commerce is also to 'make money', exactly as before. Indeed, under capitalism new technology would not be introduced at all if it could not be made 'to pay' in the traditional sense.

A much more serious issue, intellectually, in terms of arriving at a scientific understanding of the economic system, is that orthodox economic theory, the theory on which we were all 'brought up' in the words of Keynes (1936:1), has had a persistent tendency to deny the importance of money and monetary factors in determining economic outcomes, despite the apparent evidence of our senses. This goes back to a time long before anybody had thought of computers. The essence of the economic thought of the classical economists, such as Smith (1981 [1776]), Ricardo (1973 [1817]), and Mill (1987 [1848]) was their indignation at what they perceived to be the errors of their mercantilist predecessors, including the idea 'that wealth consists in…gold and silver' (Smith 1981 [1776]:429), or in other words, the money of the day. And this attitude has persisted to the present day. As is stated by Dostaler and Maris (Chapter 12 of this volume) 'orthodox economics wanted to create a science that ignored money', and every economist is familiar with the catchphrases and slogans which express this point of view, such as 'money is neutral' or 'money is a veil'. Underlying this perspective is the view that economics deals fundamentally with the so-called 'real' exchange of goods and services, as opposed to the accumulation of financial resources. As Yeager has recently expressed it, in a volume which nonetheless stresses the importance of monetary disequilibrium, '(f)undamentally, behind the veil of money, people specialize in producing particular goods and services to exchange them for the specialized outputs of other people' (Yeager (1997 [1986]: 217). This is a proposition which is virtually unchallenged in the textbooks and journal articles of contemporary neoclassical economic analysis, and which naturally leads on to a viewpoint which de-emphasizes the importance of money in the evolution of actual economic outcomes, except precisely in disequilibrium situations. The latter, however, no matter how serious the consequences may be in the short-run, are held not to permanently affect the underlying real economic equilibrium.

At a more formal level, and as discussed by Rogers (1989), Schumpeter, in his classic *History of Economic Analysis* (1994 [1954]) made the important distinction between 'real analysis' and 'monetary analysis' in the history of economic thought. Real analysis operates on the assumption that all the important features of the economic process can be understood in terms of the barter exchange of real goods and services, and their cooperation in production. In monetary analysis, however, the fact that employment and production decisions depend on expectations of monetary receipts relative to money costs, and, in general, that the reward structure of the whole society depends ultimately on monetary receipts and monetary disbursements, is taken seriously. In other words, money, and in particular the cost of acquiring financial resources (the rate of interest), is an integral part of the economic process. For our purposes, the significance of Schumpeter's distinctions is that almost all mainstream economic analysis since the time of Adam Smith has been orientated to real, rather than monetary, analysis. One exception would obviously be Keynesian monetary production, but the so-called 'Keynesian Revolution' ultimately failed to have a lasting impact on the majority of academic economists and policy-makers. This was due to both theoretical flaws in the *General Theory* itself (see Rogers and Rymes, Chapter 13 of this volume), and a variety of historical, political, and sociological factors, which I have discussed elsewhere (Smithin 1990, 1994, 1996).

However, in spite of the eclipse of Keynes's thought, and stepping back from the ubiquitous influence of contemporary textbook orthodoxy, there are a number of fairly obvious reasons for questioning the validity of the underlying neutral money assumption. The first is the frequency with which problems in the real economy have been accompanied by, or coincided with, disruptions and crises in monetary conditions, and the twists and turns of monetary policy. Monetary matters have been at the very centre of the debate about real world economic and political problems from the original 'Great Depression' of the 1890s (the very existence of which is, significantly, denied by some contemporary scholars on the basis of revised statistical evidence), through its much more serious successor in the 1930s, then through the stagflationary era of the 1970s and the recrudescence of the business cycle in the 1980s, and up to and including the recurrent currency crises of the 1990s. Moreover, it is presumably this general impression which has instinctively led many of the most important names in economics to devote such a large part of their energies to money and monetary matters, including Keynes, Hicks, Hayek and Friedman in the twentieth century. This point remains valid, even if a number of those devoting themselves to money (Friedman, for example) eventually arrived at a real rather than a monetary analysis, in the sense defined above (Smithin 1994). An even more compelling argument, however, is that if money really does not matter it would be impossible to explain why the social control and production of money and credit continues to be the subject of such ferocious political debate. Why is it important to the financial interests, for example, that central banks should be independent (i.e., not subject to democratic control)? Why do participants in the financial markets in Wall Street hang on every word uttered by the Chair of the Board of Governors of the Federal Reserve System in congressional testimony? And what is the significance of the contentious social experiment of the 'single currency', the Euro, currently underway in Europe? (See Smithin and Smithin 1998 and Parguez 1999.)

In a recent paper (Smithin 1999), I argued that two fundamental issues in monetary theory were the exogeneity or endogeneity of the money supply in the system under consideration, and whether the Wicksellian notion of a (non-monetary) 'natural rate' of interest (Wicksell 1962 [1898]) is a meaningful concept. Orthodox or mainstream monetary theory with its insistence on monetary exogeneity and a basically non-monetary theory of interest was taken to be at one extreme. Conversely, it was argued that a more viable or realistic theory for the monetary production economy would reject both exogenous money and the existence of a mythical natural rate. In other words, the jettisoning of these assumptions is necessary for the correct analysis of what Ingham (Chapter 2 of this volume) calls 'capitalist credit money'. There is, however, clearly a prior question to both of these analytical problems, which is how the social constructs of money and credit come into existence in the first place.

It is the premise of this volume that the answers given to the analytical questions in dispute will be closely related to the views taken on the prior issue of the role which money plays in the economy. This is coupled with the historical/logical question of how capitalist institutions, in particular the basic concept of production for the market, specifically for monetary reward, came to exert such a dominating influence in our social life.

Although it will be seen that not all of the contributors whose work is represented here would agree with this point of view, the starting point of the original call for papers was that two main approaches to the issues could be identified. The first was one version or another of the mainstream view which focuses on money's role as a medium of exchange, and asserts that money arises as an optimizing response to the technical inefficiencies of barter. The classic account which is usually cited is that by Menger (1892), and the tradition has persisted to the present day in such contributions as Jones (1976), Kiyotaki and Wright (1989, 1993) and almost every textbook. In this view, the development of money must presumably make some difference to the economic system at the time it is first introduced, in terms of improving the efficiency of exchange and reducing transactions costs. However, it is held (somewhat inconsistently?) that once the concept is firmly established, subsequent changes in the monetary variables do not impinge on the underlying barter exchange ratios. The whole approach is therefore consonant with, and leads to, concepts of neutral money, money as a veil, natural rates of interest, fixed quantities of money, and so on. In short, it leads directly up to an essentially real analysis of economic phenomena in Schumpeter's sense.

The other main line of approach begins with what Ingham (1996) has called the 'social relation' of money. Starting with the basic concept or idea of money, and the development of specific social rules, mechanisms, and institutions regarding money creation, the suggestion is, in effect, that markets, exchange, even capitalist production itself, are the consequence, rather than the cause, of the development of the notions of money, price lists, and credit. From this point of view, the textbook story about money emerging spontaneously from some pre-existing natural economy based on barter exchange is rejected as being both historically and logically inaccurate. Rather than money emerging from the market, the suggestion is that if anything the converse is true. Some writers have focused on what Hoover argues has been 'traditionally regarded as the weak sister of the famous triad', that is, '[the] unit of account' (Hoover 1996:212). Interestingly Keynes for one explicitly stated that, '[m]oney of account, namely that in which debts and prices are *expressed,* is the primary concept of a theory of money' (Keynes 1930:3, original emphasis). However, on a wider view presumably a money of account would be just the starting point for a more complete description of the development of the social structure of monetary practice, which would also include the development of standardized means of (final) payment denominated in the unit of account and the development of secure credit relations (see Ingham, Chapter 2 of this volume).

The main point is that these alternative views on the logical and historical development of monetary concepts ultimately lead to the view that money, or at least the price of money (the rate of interest), 'enters as a real determinant in the economic scheme' (Keynes 1936:191), and away from neutral money, exogenous money, and 'natural rates' of all kinds. In other words it leads to a more genuinely monetary analysis, of which Keynesian monetary production is itself one prototype.

In addition to, and frequently overlapping with, the two broad streams of thought identified here, there are ongoing debates on the nature of money within the confines of particular analytical traditions, such as the Austrian, Marxian, and Post Keynesian traditions (Dow 1985). Whatever view is ultimately taken on the merits of the various positions in detail, the basic point that different opinions on the key analytical and policy questions will depend on the underlying views taken on the role of money in the economy and the social structure must surely survive. This is inescapable, as soon as it is accepted that there is more than one way of looking at these issues.

Mention of the textbook functions of money highlights another difficulty which seems endemic in most discussions of monetary theory. The textbook triad (medium of exchange, store of value, unit of account) has in itself tended to structure and limit the discussion in a variety of ways. Among these are attempts to define money as simply that which fulfils each of the three functions in any given society at any point in time, an approach which inevitably comes to grief as financial innovation proceeds. In the early twentieth century the academic journals were filled with discussions on whether the checkable demand deposits of commercial banks should count as money. That issue having been decided, during the debates over monetarism in the 1960s and 1970s, the issue shifted to precisely which deposits in which financial institutions should be allowed to count, M1 versus M2 versus M3, and so on. Financial innovation and deregulation have obviously proceeded even more rapidly in the past twenty-five years, making the search for a unique monetary aggregate which fulfills textbook requirements even more futile.

An opposite temptation suggested by the textbook triad is to question whether the different functions logically need to be bundled together in the same asset or set of assets, and whether it is possible to design a coherent system in which the monetary functions are separated. This viewpoint also questions whether such a system would function more efficiently than the current one, and which of these alternatives would have evolved in the imagined ideal natural economy. Comprehensive discussions of these issues are to be found, for example, in Cowen and Kroszner (1994), Greenfield and Yeager (1983, 1989), and Selgin and White (1994).

Finally, there are the debates on which is the most important or significant of the different functions of money, and (perhaps even more importantly to contemporary economic theorists) which is the most capable of being modelled with the requisite degree of formalism. For example, both the search models discussed earlier, and cash-in-advance models based on the original suggestion of Clower (1967), try to model formally the medium of exchange function, while overlapping generations of models following Samuelson (1958) focus on money as a store of value, as do portfolio choice models in the tradition of Tobin (1958). For an overview of the neoclassical literature see Walsh (1999); or, in a more accessible treatment Laidler (1993); and for a reasoned critique see Hoover (1996). Frequently however the debates over the usefulness or otherwise of the formal models boil down to the assertion that they each emphasize one of the monetary functions at the expense of the other (s), and, as mentioned, the unit of account aspect invariably seems to be on the back burner.

As is demonstrated in a number of the contributions in this volume, a major weakness of the textbook triad approach is that it draws attention away from the hierarchical nature of monetary systems in practice. Even if there is a multiplicity of media of exchange in any given monetary system, there invariably seems to be a unique asset which constitutes the medium of (final) settlement or medium of redemption in the given social setting. This corresponds to what is described as base money in the mainstream literature, or *valuata* money in the chartalist or state money approach discussed by Wray (Chapter 3 of this volume). Dow and Smithin (1999) have argued that a hierarchical system is in some sense fundamental, and that a logical prerequisite for a functioning system of monetary production is that the medium of (final) settlement and the unit of account are unambiguously united in the same asset, even in the presence of a multiplicity of actual exchange media. Only in these circumstances does taking a long position in the production of goods for sale in the market become a feasible or viable proposition.

It is clear from both current practice and historical example that various exchange media other than the final medium of settlement can arise, but by definition they attract less confidence, and must be related to the ultimate means of payment in some way, such as by redemption pledges. This results in the notorious fragility of credit-based systems in periods of crisis, when the reliability of the substitute media has been called into question for some reason. In the typical banking system the substitute media, after all, consist simply of the balance-sheet counterparts on the liabilities side to the credits which have been granted on the prospect of future income, sales, or profit.

Another key issue is whether the ultimate reserve asset is in relatively fixed supply (e.g.if it is a commodity such as gold). It is clear that monetary systems in which the reserve asset is not in fixed supply will operate in a different fashion from those in which it is. In the former, supplies of the reserve assert can be readily increased whenever the issuing institution itself is willing to make loans of some kind. Hence the emergence of the 'pure credit economy' (Wicksell 1962 [1898], Hicks 1989), in which the money supply becomes 'fully endogenous'. The interest rate on the 'loans' granted by the issuing institution then becomes the main instrument by which the reserve asset is rationed, rather than any quantity principle. Furthermore, as mentioned earlier, control over the monetary instruments and the monetary institutions which operate them, becomes one of the main 'contested terrains' in the struggle for political control and supremacy in the society (Parguez 1999). In the contemporary era of electronic money, these points should be even more clear than formerly.

Each of the authors whose work is represented in this volume has made a number of distinguished, and in many cases provocative, contributions to the debates sketched out above. A wide range of points of view and different schools of thought is represented, some of which are in broad agreement with the type of argument put forward here, while others tend to the opposite, or least a different, direction. Each contributor was asked to set down her or his current position on the key question of the role of money in the economy and society, in order to provide the reader with authoritative statements of as many as possible of the alternative arguments and theories. It is hoped that the cumulative effects of the work presented here will be to clarify the issues in dispute, suggest directions for further research, and, at a minimum, provoke some re-examination of the fundamental assumption of neutral money which underlies much of contemporary economic theory.

In Chapter 2 Geoffrey Ingham makes the case, as he has done in previous work, that money is most usefully seen as a socially constructed (and continually re-negotiated) category, and is constituted by social relations between the monetary and other economic agencies in the society. Serious implications for the social control and production of money, and for the impact of changes in monetary variables on the so-called real economy would immediately follow. Ingham approaches the issues from the perspective of a sociologist, and makes a number of references to classic writers such as Simmel, Durkheim, and in particular Weber. However, in earlier work (Ingham 1998) he has also made the point that neither the orthodox economics nor the orthodox sociology of the present day have really got to grips with subject of money, since the academic disciplines split to follow their different paths after the *Methodenstreit* at the end of the nineteenth century. The sociologists ceded the field to the economists (presumably on the grounds that money is pre-eminently an economic subject), but as has been shown, the prevailing tendency among the economists was also to relegate the discussion of money to a very low order of priority. It would seem, however, that any unified social science worthy of the name must at some point seriously confront what has always been, and still is, one of the key social institutions in everyday life.

Unlike their mainstream colleagues, the charge of neglecting money could hardly be made against economists of the so-called 'neo-chartalist' school. Chapter 3 is contributed by L.Randall Wray, who is one of the leading figures of this school, and has set out the main principles in a recent book (Wray 1998). Wray would not disagree with Ingham that money is a social relation, but he is quite specific as to the nature of that relation. Modern money is pre-eminently state money, and the liabilities of state central banks acquire the status of *valuata* money or base money because of the coercive power of the state, and in particular its ability to levy taxes on its citizens payable in its own currency. This is a modern revival of the views of Knapp (1924), the originator of the state theory of money, and Keynes (1930), who both used the term 'chartal' in describing money. The approach is also known as the 'taxes drive money' view. An important implication, which I believe would also accepted by a number of the other contributors, is that control over the monetary system in this sense *enables* a wide range of public policy initiatives, which need not be restrained by essentially self-imposed financing constraints, such as the need to balance the budget. This type of reasoning, of course, lay behind the once-popular 'functional finance' version of Keynesianism, associated with Lerner (1943), which has now been abandoned by economic orthodoxy. Wray and his colleagues would similarly argue in favour of an ELR (employer of last resort) programme, operated by governments, who, on this view, should be concerned only with the substantive benefits of such a scheme, and not with essentially spurious worries about whether such a proposal can be 'afforded'.

Chapter 4 contains an exposition by Gunnar Heinsohn and Otto Steiger of their own 'property theory' of interest and money. There is clearly a good deal of affinity between their views and those of the previous two authors (see, e.g., Heinsohn and Steiger 1989) and perhaps also on some policy questions. None the less, there are also important differences. For example, on questions such as the ultimate genesis of money. Heinsohn and Steiger argue that money can only arise in societies based on the institution of private property, and that it is created in a credit contract when property is encumbered and collateralized. The rate of interest is therefore interpreted as a 'property premium', that which must be given up when property is encumbered. This, the authors stress, is an immaterial yield which exists as a result of the legal/social relations in the society, it is not the same as a physical yield resulting from the actual possession of resources. This view of money can then be applied to a variety of theoretical and policy issues of the monetary economy. For example, in their paper, the authors discuss the unfolding of the typical business cycle in these terms. Their work has attracted a good deal of attention, as well as much controversy, in the German-language literature, as witnessed, for example, by the critiques of Betz and Roy (1999) and Laufer (1998). Their contribution here provides an accessible English-language version of the theory.

The next chapter, by Alain Parguez and Mario Seccareccia, also deals with a theoretical approach to monetary economics and monetary institutions which has perhaps been more widely discussed in continental Europe than in the North American and other English-language literature (Graziani 1990, Deleplace and Nell 1996). They provide an exposition and explanation of the 'theory of the monetary circuit', or TMC. On this view, money is quite simply the by-product of the balance sheet operations of financial institutions or 'banks', which, in the particular set of social relations which have evolved to create the monetary economy, play a well-defined role in the sequence of transactions necessary to set production in train and create new wealth. Debts are created to allow private firms, or the state itself, to begin the production process by acquiring the necessary financial resources. These debts can then be reimbursed if the debtor can acquire a sufficient quantity of the banks's own outstanding liabilities (e.g., by the sale of output) not only to repay principal plus interest, but also to generate a monetary profit. The conditions which are necessary to complete the circuit in this way then generate the core theoretical propositions and policy positions which flow from the approach. Parguez and Seccareccia also relate the circuit approach to other versions of monetary theory, including the neoclassical barter-exchange theory, and two heterodox approaches, post-Keynesian theory and the neo-chartalist theory discussed above. They conclude that the so-called horizontalist version of Post Keynesian theory (e.g. Moore 1988, Kaldor 1986, Lavoie 1992) is the closest to circuit theory, compared with that of the rival structuralist wing which remains closer to the views expressed in Keynes's *General Theory*. On the difference between the views of horizontalists and structuralists, see also Rochon (1999). The authors also identify a number of similarities of outlook between the neo-chartalist position and the circuit theory, with the exception, perhaps, of the emphasis that the former places on taxes.

Chapter 6, contributed by Victoria Chick, deals specifically with the role of money in the Post Keynesian theory of effective demand. She makes explicit what has often been left implicit, that in Post Keynesian theory an increase in effective demand, the driving force of the system, is always understood to be accompanied by an endogenous increase in the money supply. The monetary/financial system therefore plays a crucial enabling or accommodating role, if not a causal one. As in the previous chapter by Parguez and Seccareccia, Chick also addresses the relationship between Post Keynesian monetary thought and that of other heterodox schools, including the circuit school. It is argued that in practical situations the methods of financing spending decisions are more varied and complex than is recognized in some of the simpler theories, and therefore that the extent of any economic expansion must be influenced by the outcome of the financing decisions.

It will be evident the first few chapters of this volume all deal with one version or another of aheterodox approach to the role of money in the economy. However, in chapter 7 there is a change of tack and Kevin Dowd provides an authoritative statement of the more widely-accepted argument that money emerges from an initial situation of barter via the optimizing response of individual agents, guided by the 'invisible hand' of the market. As most of the contributors to this volume obviously take a different view, I am most grateful to Dowd, and also to Peter G.Klein and George Selgin, who contribute a piece on the Mengerian theory in chapter 11, for allowing their work to appear in this forum. In my view, this exchange of ideas, and the detailed presentation of alternative points of view, is essential in furthering the academic debate. In addition to a thorough exposition of the market-based theory, Dowd also makes the interesting argument that the historical accuracy *per se* of the competing theories is not really the main point at issue. Even if money and monetary institutions did not in fact evolve in the sequence usually described in the textbooks, the logical/theoretical demonstration that they *could* have done so is still important. It shows that the spontaneous emergence of a market-based monetary order, without intervention by the state, is a least a theoretical possibility or benchmark. If such an order can also be shown to have desirable welfare properties (to use the standard economic jargon), then it can reasonably be the basis for policy advocacy, for example, in favour of 'free banking' or *laissez-faire* in the financial services industry (Dowd 1996). One imagines, however, that a number of the other authors in the volume would question whether a regime of capitalist monetary production is feasible on this basis (see Dow and Smithin 1999).

Chapters 8 to 13 each contain the name of a major thinker or thinkers on monetary issues in their titles, and are arranged in a rough chronological order on that basis. In Chapter 8 Scott Meikle discusses Aristotle's views on money. Classical Greece was clearly not a monetary production economy in the sense in which Keynesian writers and others use the term. Nevertheless, Meikle shows that many of the same ethical and analytical issues which have concerned later writers were already present in Aristotle's work.

Chapters 9 and 10 are both concerned with the modern Marxist approach to money, and are intended by their authors, Steve Fleetwood and Peter Kennedy, to be complementary. Both authors address and seek to resolve the difficulties for classical Marxian theory which are apparently posed by contemporary forms of money, which are all more or less insubstantial, consisting of electronic money, paper money, token coins, and so forth. The difficulty which this poses for Marxian theory is that Marx conceived of money as a commodity (in the standard Marxian sense), and, moreover, as a special commodity which has emerged as the 'universal equivalent' (e.g. gold). So, in ways which (ironically) are reminiscent of the problems of the orthodox real-exchange theory (with all due allowances for differences in terminology and philosophical perspective), the Marxian theory also is in danger of being perceived as anachronistic. Fleetwood and Kennedy both seek to dispel this view.

The other main feature of Marxian monetary economics, of course, is its own version of the circuit, M-C-M' (see Meikle, Chapter 8 of this volume). The capitalist production process is seen as transforming an initial amount of money, M, into commodities, C, and then into a presumably greater 'value' of money, M'. It seems to me that many of the issues at stake can be condensed into the question how this is supposed to happen. The simple answer given by many of the credit-based endogenous money theories discussed earlier is that monetary profits must be generated by *money creation* over and above the initial costs of production. This is why, for example, so much attention is paid to the role of government budget deficits in sustaining aggregate demand, and why surpluses are perceived as a danger.

One sector or another must be continuously willing to go into deficit in order to generate monetary profits, and, as a practical matter, the most likely candidate is the public sector. However, as is well known, this is not the route taken by classical Marxian theory. The latter involves a 'real' theory of exploitation in which employers extract surplus value, defined in terms of labour power, from the workforce. As Fleetwood and Kennedy discuss, there are therefore basically two potential responses to contemporary financial developments for Marx-inspired theory. One is to develop a credit-based theory of exploitation (with similar mechanisms to the other credit-based theories discussed) which is informed by Marxian social theory, but nonetheless abandons the original commodity theory of money. Some scholars have moved in this direction, and Fleetwood and Kennedy provide references to the literature. The second is to affirm the essential validity of Marx's original analysis of money, capitalism and exploitation, which then implies that modern developments must in some way represent a disempowerment of the original value relation. Money (as originally defined) is seen as losing its power to structure the relations of production. In other words capitalism, as analysed by Marx in a historically specific setting, must be undergoing a metamorphosis. This is the case made by both of our contributors, who focus on the theoretical and practical aspects respectively.

In Chapter 11, Peter G.Klein and George Selgin seek to provide experimental evidence, via computer simulations, for Menger's rather different commodity theory of money. As with Dowd's contribution in Chapter 7, the objective is to discover the logical conditions under which a unique commodity money could emerge as a generalized medium of exchange from an initial state of barter. More can be learned about the viability of the original Mengerian theory by varying the experimental conditions, such as changes in the number of agents and changes in the number of goods. The authors conclude that convergence on a single exchange medium can occur theoretically, even if the agents have a very limited amount of information at the outset.

Gilles Dostaler and Bernard Maris, in Chapter 12, look at money from a diametrically opposed perspective, and focus in particular on the psychological aspects on the role of money in the social order. Such ideas as the irrational love of money, greed, and the urge for accumulation for its own sake, are certainly widely discussed in popular culture, and are constant themes in myth and folklore. However, they have only rarely featured in economic literature. Most economists shy away from such topics, because of their (psychologically-based?) desire to construct a rational science. The authors point out, however, that interestingly enough, at least one famous monetary economist, Keynes, sometimes adopted an approach to money and capitalism which was very close to that of Freud, and that the two thinkers (who were near contemporaries) had a reciprocal effect on the development of each other's thought in small, but important, ways. It is therefore legitimate to speak of a 'Freudo-Keynesian' concept of money, which would have very different implications for the conduct of economic and social policy than the more orthodox notions of rational choice.

Finally, in Chapter 13, Colin Rogers and T.K.Rymes discuss two important issue in monetary economics, one old and one brand new. The first concerns the theory of banking which Keynes put forward in his *Treatise on Money* (1930). This had famously disappeared by the time of the *General Theory* in which 'technical monetary detail falls into the background' (Keynes 1936:vii). The authors argue that this omission was very much to the detriment of the latter book. They also discuss developments in modern payments systems in which regulatory and technical change have created a situation in which the net clearing balances of the major banks and near banks (the 'direct clearers' in the Canadian institutional conntext), can be kept at effectively zero on average. Central bankers can none the less control monetary policy via interest rate changes, as they are still able to set the ultimate penalty rate on negative balances (the bank rate or discount rate), the rate which they would pay on any positive balances, and the spread between them. These instruments, together with the continuing ability to put the system as a whole into an overall negative position if needed, are sufficient to influence rates in the inter-bank market (the overnight rate in Canada), and thereby the whole complex of rates tied in to this key indicator. Nonetheless, as the authors point out, it is possible to interpret this *'modus operandi* of the bank rate' (Keynes 1930 1:166) as a system operating without a traditional monetary base or 'nominal anchor'.

Presumably, the existence of a unique *valuata* money, combining the attributes of unit of account and means of (final) settlement (in this case the liabilities of the central bank) would continue to be important as the lynch-pin of the system, because otherwise there could hardly be a penalty for falling into a negative settlements position. However, it is evidently impossible to think of this system operating in terms of quantitative changes in the monetary base feeding through to the broader aggregates via some kind of money multiplier. Instead the system works precisely through the central bank controlling interest rates, which leads in turn to productive agents in the economy deciding whether or not to become indebted to the banking system, and the wide variety of consequences which flow from such decisions.

The connection to Keynes is the argument that the banking theory of the *Treatise* anticipated this kind of world, and provided a starting point for the type of monetary theory which would be relevant in the new environment. According to Keynes 'it is broadly true to say that the governor of the whole system is the rate of discount' (Keynes 1930 2:189). Rogers and Rymes argue that economic theory would be more advanced today if Keynes had retained the banking theory of the *Treatise* in his *General Theory*. In particular, the relevance of changes in banking activity for both real rates of interest and real economic growth would be much better understood. On the latter points see also Smithin (1994, 1997, 1998).

It should be mentioned finally that in the course of preparing this volume, it was discovered that the title *What is Money*? was anticipated as long ago as 1913 in a little-known article by W.Mitchell Innes, published in the *Banking Law Journal*. Several of the contributors to this volume have studied Innes's arguments and make reference to his article. The coincidence of titles is perhaps not all that surprising. Rather more so is the content of Innes's argument, which not only provides a concise summary of the traditional commodity-exchange theory of money, and criticizes it on logical and historical grounds, but also proposes an alternative credit-based theory of money. In other words, the actual subject matter of Innes's contribution also anticipates the concerns of the present work. I hope that contemporary readers will feel that each of the contributors has finally taken up Innes's challenge to thoroughly re-evaluate what he called 'the fundamental theories on which the modern science of political economy is based' (Innes 1913:377), and collectively have made some progress towards the construction of a more relevant theory of the role of money in the capitalist economy for the twenty-first century.

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# 2 'Babylonian madness': on the historical and sociological origins of money

*Geoffrey Ingham*

## Introduction

Following initiation into the 'Sociog' tribe (Leijonhufvud 1973), I lived for many years among the 'Econ', working as an underlabourer on what was referred to as the 'social context' of economics. During this time, I became interested in London's capital markets and asked some of the 'Econ Bigmen' for guidance (Ingham 1984). I wanted to know, in simple terms, what money was. They seemed amused by my naivety and explained that money, as such, was not really as important as common sense might suggest. But, I was not convinced, and lacking a thorough grounding in microeconomic analysis, found it difficult to accept the counter-intuitive 'neutral veil' conception. General equilibrium theory's inability to provide an essential place for money in its formulations was even more puzzling (Hahn 1982). I dropped the matter for quite a time.

When I eventually returned to money, a much more congenial Post Keynesian literature was available.[1] It led me back to Schumpeter (1994 [1954]); but more importantly, I also discovered the first two chapters of Keynes's *A Treatise on Money* (1930) and, subsequently, what he referred to as his 'Babylonian madness'. For five or six years in the 1920s, Keynes studied metrology and numismatics in a search for the historical and logical origins of money in the ancient Near East civilizations.[2] At times he thought the enterprise to be 'purely absurd and quite useless'; but, none the less, 'became absorbed to the point of frenzy'.[3] However, his instinct was surely sound. This method of inquiry, I shall argue, leads to a better understanding of money than pure theory, supported or otherwise by fanciful historical conjecture.[4]

Keynes was also aware of the rich body of work on money that the German historical school had produced around the turn of the century.[5] By the 1920s, however, this had been more or less expunged from the growing economic orthodoxy, and even Keynes's flirtation with the historical and sociological approach to money was short-lived. As he was implicitly aware, it sat uneasily with his classical economic education. However, a clearer conception of money's essential properties and its role in the economic process requires the rehabilitation of this kind of perspective, which has lain dormant outside not only mainstream economics, but also modern sociology (Ingham 1998b).

## Money in orthodox economic analysis

Two basic methodological tenets in mainstream economics, consolidated after the theorists' victory in the *Methodenstreit,* have prevented the development of an adequate conceptual framework for the understanding of money (Ingham 1996b, 1998b).[6] The first is the retention of the model of an essentially barter exchange economy in 'real' analysis in which money is *essentially* a commodity (Schumpeter 1994 [1954], Rogers 1989, Smithin 1994); and the second, the methodological individualism of the rational utility maximization model. Within this paradigm, an acceptable theory of money has come to be one which does not violate the above canons.

### *Money as a convenient medium of exchange*

The metatheory of the 'real' economy that underpins (neo)classical analysis is concerned exclusively with money as a *medium of exchange*. The other functions (unit of account, means of payment, and store of value) are taken for granted or assumed to follow from the medium of exchange function. As either a commodity itself, a medium of exchange can have an exchange ratio with other commodities; or, as no more than a symbol or token, it can *directly* represent 'real' commodities. In this conception, money can only act as a 'neutral veil' or 'lubricant'. Money is not an autonomous economic force–it does not make a difference–rather, it merely enables us, according to Mill, to do more easily that which we could do without it.[7]

Real analysis and, ultimately, the equations of general equilibrium models are not, as it is generally supposed, purely the results of the axiomatic-deductive method. The 'real economy' abstraction actually derives from an inaccurate historical conception of a small scale, pre-capitalist 'natural economy' or the 'village fair'.[8] In this model, economic activity is seen to involve routine spot trades in which media of exchange can be readily taken to be the direct representation of real commodities– that is, as their 'vehicles' –by the continuously transacting economic agents. The natural economy does not possess a complex social-economic structure; it is essentially simple barter with a monetary veil.

This restricted view of money, and, indeed of economic activity in general, creates a number of problems. In the first place, I shall argue that taking all other functions of money (money of account, means of payment/

settlement, store of abstract value) for granted, is not only unwarranted, but also diverts the theoretical focus from fundamental questions regarding the actual social processes by which money is produced and the problematic relationship between money and goods is socially enacted.[9] Second, the narrow concern with media of exchange has created difficulties in understanding modern capitalist credit money, in which special signifiers of debt (promises to pay) issued by states and banks, become means of payment and stores of abstract value.

In their preoccupation with the theory of the value in exchange of the 'money-stuff' of actual media of exchange, the nineteenth century commodity exchange theorists and their neoclassical heirs appeared to have missed the central importance of money of account. This is evident, for example, in Edgeworth's parable of the two men taking a barrel of beer to sell at the races, by which he provided a neat illustration of the assumptions that underlie the view of money as a neutral veil over real exchange. As the men become thirsty on their journey, one of them asks the other if he may buy a share of the beer with the only threepenny piece they have between them. As the day gets hotter, both men become thirstier and the transactions multiply. Eventually, the velocity of circulation of this 'vehicle' of a single coin, as it passes from one to the other, is able to finance the sale of the entire barrel (quoted in Robertson 1928). It is interesting to note the contrived equilibrium conditions of symmetrical, dyadic trade in the example. It is more important to realize, however, that the transactions –symmetrical or not–could have been recorded in *money of account* to be settled at a later date by an acceptable means of payment.

Following Keynes's 'Babylonia' and the German historical school, I shall argue that money of account is the pivotal element of monetary practice.[10] Money of account is the *essential* means by which price lists are constructed and multilateral, inter-temporal exchange is made possible. Markets, such as the Champagne Fairs of the late Middle Ages, demonstrate (Boyer-Xambeu *et al.* 1994) that actual money-stuff is not required for the immediate transactions, and Edgeworth's beer carriers ought really to have known this. Only monetary practice in the sense of an abstract system of accounting ('book money') and an agreed means of payment to effect an eventual settlement is needed. If the latter is universally acceptable so much the better; but extensive and complex monetary practice (as opposed to barter) involving price lists and debt contract, denominated in abstract value, is possible without it: as, for example, in eighteenth century Boston.[11] Indeed, there are compelling reasons for agreeing with Keynes (1930:3) that 'Money of Account…is the primary concept of a Theory of Money' (see also Keynes 1982:252–5, 1983:402; Hicks 1989). However, money of account cannot simply be assumed to be the spontaneous outcome of 'truck, barter and exchange': the very idea of money needs to be explained. And the economic theory of pure exchange, based as it is on a basic