ACTA SOCIOLOGICA 1998

On the Underdevelopment of the 'Sociology of Money'

Geoffrey Ingham
Christ's College
Cambridge, UK

ABSTRACT
As a result of the division of intellectual labour that followed the *Methodenstreit* in the social sciences, sociology neglected the analysis of the social production of money and has concentrated instead on its social effects or social meanings. Moreover, sociology tacitly endorsed the flawed conception of money as a 'veil' masking either the 'real' economy or the 'social relations' of production. Building on the approach of the 'historical school' of economics and Keynes and the post-Keynesians, an alternative theory of money, seen as primarily abstract money of account, is outlined. With this approach it is possible to develop an explanation for the development of capitalism's distinctive form of bank and state credit-money. Sociology should recover intellectual responsibility for the analysis of monetary phenomena such as inflation, interest rate determination, etc., as the outcome of economic conflict grounded in price-setting struggles.

Geoffrey Ingham, Christ's College, Cambridge CB2 3BU, United Kingdom

1. Introduction

The modern world is inconceivable without money; it is, as Simmel argued, the very essence of 'modernity'. Yet for most of this century, sociology – which for some is the distinctive intellectual framework for interpreting 'modern' society – has made very little contribution to our understanding of money. To be sure, there has been a renewal of interest in the subject, most effectively by Hart (1986), Baker (1987), Dodd (1994) and Leyshon and Thrift (1997); but, with these exceptions, the revival highlights the *theoretical* weakness of the sociological analysis of money. As the authors of a recent comprehensive survey of the literature concede, modern sociology has taken the existence of money for granted (Mizruchi & Stearns 1994). Sociology has been concerned instead with highly general and simple descriptions of money's place in 'modern' society (Giddens 1990), its social, psychological and cultural meanings or effects (Zelizer 1994), and, more obliquely, with the ownership and control of finance–capital. None of these approaches, however, has directly broached the actual social production of money.

It could be maintained that this is an 'economic' problem which lies outside sociology's proper domain. Such an argument might have some force if economics provided a satisfactory account of the existence of money, but it does not (Ingham 1996). Economic analysis usually begins with the list of money's functions which was drawn up in the late 19th century, and, generally speaking, it remains true to say that for economics, money is what money does. In the conventional analysis, money functions as a medium of exchange, a measure of value/unit of account, a means of payment, and a store of value. It is held that it evolved to overcome the inefficiencies of barter and/or to reduce transactions costs for the individual.[1] Both arguments are logically flawed (Ingham 1996). Macroeconomics and the authorities who rely on its work are occupied in measuring the quantity of money and monitoring its supply, but an examination of this literature and the events of the past twenty years uncovers considerable disagreement and uncertainty amongst the experts as to which are money's most important or definitive functions, and *how* it actually performs them.[2] Furthermore, it is conceded that a prestigious branch of the dominant neoclassical economic paradigm – general equilibrium theory – cannot actually find an essential place for money in its conceptual schemes.[3]

The reason for this puzzling state of affairs, in which the social sciences cannot adequately account for the pivotally important institution of modern society, lies in the legacy of the division of intellectual labour between economics and sociology, which followed the methodological disputes (*Methodenstreiten*) in history and the social sciences at the turn of the last century. As a result, money fell under the jurisdiction of economics, and this fact alone explains sociology's indifference; but it was the particular 'theory' held by the victorious economists that was to have a significant impact on both disciplines' understanding of money. After the *Methodenstreit*, economic thought became dominated by the idea that money was epiphenomenal – that is to say, it was treated as a neutral 'veil' over the underlying 'real' natural economy. This conception, incorporated into modern economics as part of the intellectual inheritance of 'pure theory', was actually based on an increasingly anachronistic 'metallist' or 'commodity' theory of money. In deference to economics' jurisdiction over monetary matters in the social sciences, this theory of money was absorbed uncritically into mainstream sociology. Consequently, modern sociology became doubly disabled: it abnegated responsibility for a field of study to which 19th century social historians and sociologists had already made valuable contributions, and simultaneously tacitly accepted an inadequate narrowly economic conception of money (Ingham 1996). It is often claimed that Marxism avoided these errors, but its analysis of money has been similarly weakened by the intellectual legacy of Marx's own interpretation of the commodity theory of money, which similarly holds that money 'veils' or 'masks' an underlying 'reality'.

The first part of this paper comprises a brief critical account of the 'neutral veil' conception of money in the social sciences. Money, I shall argue, is not only socially produced, but is a social relation (Ingham 1996). Secondly, I argue that the revival of the sociology of money must move beyond a tendency to theorize the specifically *non*-economic aspects of money, which is to be found, for example, in the emphasis placed upon the importance of 'trust', money's effects on social relations, or its different social meanings and uses.

2. The concept of money in mainstream economics and sociology

Economic orthodoxy: money in the 'real' economy

Methodological disputes played a large part in the specialization and professionalization of the social sciences of modern academia during the late 19th and early 20th centuries. The new disciplines were not only identified substantively by their spheres of competence, but also by the methods by which this specialization and professionalization was established (Swedberg 1987; Machlup 1978). A central question involved the relative merits of formal deductive logic and explanation by means of general laws (*Naturwissenschaften*) as opposed to a more interpretative and empirical procedure (*Kulturwissenschaften*).[4] The former natural science model increasingly dominated economic theory, which took on an even more marked positivist complexion with the development of 'marginal utility' theory, based on axioms of individual rational choice and the associated equilibrium model of the perfectly competitive market. The metatheory of the 'economy' underlying these abstractions involves the conceptualization of a system comprising exchange ratios between commodities expressed in money terms (object–object relations), established as the result of individual acts of utility calculation (individual agent–object relations). These relations – object–object and agent–object – comprise the 'real' economy. Agent–agent relations – that is, social relations – form no part of the model; in this pure theory of exchange, human agents are literally only the 'carriers' of commodities. All other aspects of human interaction are theoretically irrelevant.[5]

It is this metatheory that renders money epiphenomenal; that is, it is cast as a neutral 'veil' which 'symbolizes' or 'signifies' the exchange ratios of commodities in the 'real' natural barter economy.

> Real analysis proceeds from the principle that all the essential phenomena of economic life are capable of being described in terms of goods and services, of decisions about them, and of relations between them. Money enters the picture only in the modest role of a technical device that has been adopted in order to facilitate transactions . . . so long as it functions normally, it does not affect the economic process, which behaves the same as it would in a barter economy: this is essentially what the concept of Neutral Money implies. Thus, money has been called a 'garb' or 'veil' of the

> things that really matter . . . Not only can it be discarded whenever we are analysing the fundamental features of the economic process, but it must be discarded, just as a veil must be drawn aside if we are to see the face behind it. Accordingly, money prices must give way to exchange ratios between the commodities that are the really important thing 'behind' money prices . . . saving and investment must be interpreted to mean saving of some real factors of production . . . such as buildings, machines, raw materials; and, though 'in the form of money', it is these physical capital goods that are really lent when an industrial borrower arranges for a loan. (Schumpeter [1954] 1994:277)

As Mill expressed it, money enables us to do more easily what we would do without it. This conception was systematically incorporated in the work of Walras, Marshall, Wicksell and others around the turn of the century, and it became the implicit paradigm for orthodox non-Keynesian economic analysis in the 20th century.[6]

'Real' analysis of money derives from the 'metallist' or 'commodity' theory, in which it is argued that money can function as a medium of exchange only if it is a commodity with an exchange value independent of its form as 'money'. Thus, there can be an exchange ratio between the 'real' values of precious metals (or wheat or beans) in the form of money, and other commodities. As Carl Menger – a leading economic 'theorist' in the *Methodenstreit* – argued, rational actors in a barter economy would realize the advantage of holding stocks of the most saleable commodity as a convenient medium of exchange (Menger 1892). Thus, as an unintended consequence of individual rationality, precious metals, which possess the complementary attributes of portability, divisibility, durability, etc., become money, and thereby the inconveniences of barter are overcome.[7] It was on the basis of such theories that the commodity–exchange theorists (or 'metallists') put their case that all forms of money should either be, or represent directly, real commodities.

Ironically, the acceptance of this theory occurred at the same time as the rapid growth not only in the use of base metal and paper currency, but also of credit-money that represented not commodities, but 'promises to pay'. Hence the self-inflicted 'Menger's paradox': institutions such as money 'make for the common interest, and yet . . . conflict with the nearest and immediate interests of contracting individuals, in that an 'individual should be ready to exchange his goods for little metal disks apparently useless as such, or for documents representing the latter' (Menger, quoted in Jones 1976:757). Modern neoclassicism's attempt at a resolution, which is consistent with the axiom of individually rational maximization, has been to update Menger and attempt to demonstrate that non-commodity money reduces transactions costs for the individual (Jones 1976; Ostroy & Starr 1974; Clower 1984. For a critical discussion of this and other related models, see Hoover 1996). However, the very best that this theory can show is that once in existence and widely accepted, non-commodity money can be an 'individual' as well as a 'public' good (Ingham 1996).

From the present standpoint, it is important to note that the 'real' analysis of money, which underpins neoclassical economic theory, is a *market* theory of the 'logical' origins and functions of money (see Schumpeter [1954] 1994, chapter 6 for the distinction between 'logical' and 'historical' origins). Consequently, money is conceptualized exclusively in terms of the *medium of exchange* function in which it represents 'real' commodities and acts as a neutral 'lubricant' of exchanges between them.

Money in sociological theory

This mainstream economic conception of money has had a deleterious effect across a range of historical and social sciences, some of which had made valuable contributions to the analysis of money before their abortion in the wake of the *Methodenstreit*. I shall be concerned with sociology, but history and social anthropology have been similarly affected (Hart 1986, 1990).[8]

As I have suggested, most recent sociology of money observes the division of intellectual labour and the authority of economics. Almost all empirical work falls into one of two main categories: the study of the social and cultural consequences of a money economy, especially money and 'modernity', and neo-Marxist studies of banks and finance–capital. With few exceptions, sociology has borrowed its definition or theoretical conception of money directly from orthodox economics' functional theory, in which money is primarily a medium of exchange (and, relatedly, a store of value) (Mizruchi & Stearns 1994:313–314). This is apparent in a pervasive theoretical counterpart in sociology to the economic theory of money as a neutral 'medium' which symbolizes the commodities of the 'real' economy, or, alternatively, as 'value' that confers power. It is implied in general schemes for the sociological analysis of the 'economy' and can be traced, for example, to Parsons and Marx.

Parsons' early work played an important part in the creation and consolidation of the division of intellectual labour between economics and sociology, in which the latter was to be distinct from, but complementary to, economics (Parsons 1934, 1937, 1940). Later, in *The Social System* and, with Smelser, in *Economy and Society*, money explicitly has its place as a symbolic generalized medium of social communication and interaction (Parsons 1950; Parsons & Smelser 1956; Ganssman 1988; Dodd 1994). Like language, money was seen to facilitate the integration of the functionally differentiated parts of the social system, in the same way that economists saw it as the 'medium' of communication through prices and as a 'vehicle' for the flow of commodities. But as 'sign', 'symbol', 'vehicle', 'lubricant', etc., money was seen to be 'neutral', in that it did not have any effect on the underlying constitution of 'real' economic and social systems. In this, Parsons slavishly followed economic neoclassicism in the equation of utility with value-in-exchange: value is only realisable in exchange; money itself is only a symbol of value, that is, in itself, as a symbolic medium, it is without value (Ganssman 1988:308). In short, Parsons did not think money was important for sociology, and so could be left to the economists, as he was convinced of 'the essential soundness, from a sociological view, of the main core tradition in economics' (Parsons [1953] 1961).

Despite their differences, other sociological theorists such as Habermas and Luhmann have followed Parsons in using the money–language analogy in their explications of the 'social system' (Dodd 1994; Ganssman 1988). Here again, money, as a medium of communication, is analysed in terms of its effects, for example, in fostering 'systemic complexity'. But its existence is taken for granted and, apart from superficial references to trust and confidence, nowhere is the social production of money explained.[9]

Marx and Marxism on money

In Marx's critique of 'classical' political economy, money is not merely a symbolic medium of exchange; it is also, as the alienation of 'value', a means of domination. However, as I implied earlier and now wish elaborate, for Marx, class power is exercised *through* money; but the control of the actual production of credit money in the financial system is not considered an autonomous source of social power, or a basis for class power, independent of the ownership and control of the means of production of commodities. Marxist political economy provides a sociologically informed alternative to mainstream economics, but their underlying conceptions of money are very similar. In Marx's thought, money also 'symbolizes' and 'veils' an underlying 'reality', albeit one that is at odds with the one depicted in orthodox economic theory.

Notwithstanding his critique, Marx's view of money was very similar to contemporary 'classical' political economy's 'commodity' theory: 'Gold confronts other commodities as money only because it previously confronted them as a commodity . . . It acts as a universal measure of value, and only through performing this function does gold . . . become money' (Marx 1976:162, 188). Other forms of money, including bank notes, trade credit, and bills of exchange, are money insofar as they 'represent' precious metals (on the one hand) by being convertible at a fixed ratio, and (on the other) the exchange of 'real' commodities in actual production or circulation.

This orthodoxy is given Marx's distinctive stamp by his elaboration of the labour theory of value. Precious metals are able to function as money because their mining and minting embody labour: 'Gold can serve as a measure of value only because it is itself a product of labour' (Marx 1976:192). The originality of Marx's contribution lay in his argument that monetary relationships do not merely represent or signify a natural *economic* 'reality', but also 'mask' the latter's underlying *social* 'reality'. As the objectification of human labour, money represents its alienation under capitalist social relations of production; these 'social' relations form the underlying 'reality', which appears as 'economic' relations in a monetized – that is, in a fetishized and alienated – form. For Marx, there are *two* veils: behind money lie 'real' economic 'forces' and, in turn, behind these lie the real social relations that again appear as monetary relations.[10] Tearing away these monetary 'masks' or 'veils' will 'demystify' capitalism. Indeed, it is essential to get behind the purely monetary relations in order to understand the social relations of any particular mode of production. This kind of reasoning is precisely why Marx is claimed for sociology. The argument is also used to challenge orthodox economics (see Foley 1987), but it also implies that money can be 'bracketed' in the analysis of social structure. Given two 'veils' rather than one, Marx's position, from an analytical standpoint, is exactly the same as that outlined by Schumpeter ([1954] 1994) as 'real' analysis. Of course, money is also 'power', but capitalists, according to Marx, are powerful not merely through their possession of money, but through their control of the means and relations of production. However, this emphasis on the production of commodities fails to grasp the relative autonomy of the development of the means and social relations of production of modern bank and state credit-money.

Nonetheless, it would be a mistake simply to see Marx as just another 'classical' economist who analysed 'real' factors as social rather than economic 'forces'. Indeed, one of his enduring intellectual contributions was to insist that the *differentia specifica* of capitalism, as opposed to simple commodity production, is the appropriation of value in the form of abstract wealth (M-C-M). It is this characterization of capitalism as an essentially money economy that has led some post-Keynesian economists to use Marx's work as an exemplar of 'monetary analysis' – that is to say, of the view that 'money matters', and is not merely a neutral veil (Rogers 1989; Wray 1990). However, post-Keynesian monetary analysis focuses on the autonomous role of banks in the creation of 'endogenous' credit-money in capitalism. I wish to push their reasoning a little further by suggesting that this production of bank-credit (and state-credit) money is a constitutive feature of capitalism. But, as I have suggested, this formulation is not be found in Marx; it is not the monetary system of credit-money creating banks that are specific to capitalism, but only the capital–labour social relation. Marx had as much difficulty as many of his contemporaries in conceptualising credit outside the commodity theory of money (Cutler et al. 1978:24–26).[11] To repeat and to (mis)use Marx's terminology, I would argue that money and, in particular, bank-credit money should be seen as a 'force of production' in its own right, and that this 'force' consists in the 'means' and the 'social relations' of the monetary and banking systems.

The influence of the anachronistic and misleading commodity–exchange theory of money is evident in later Marxist writing. In *Finance Capital*, for example, Hilferding attempted to understand the role of banks in the centralization of capital and the changing structure of capitalism, but the theoretical analysis is flawed by the attachment to Marx's version of commodity theory's 'real' analysis of money. In a manner entirely consistent with contemporary orthodox economic 'theorists', Hilferding argued that 'money . . . originates in the exchange process and requires no other condition' (Hilferding [1910] 1981:36; see also 376).[12] He recognized that credit – as a promise to pay – is a social relationship, but persisted with the orthodox attempt to anchor its creation and supply directly in the 'real' economy of production: 'Because of its *origin*, the *quantity* of credit money is *limited* by the level of production and circulation. Its purpose is to turn over commodities, and in the final analysis, it is covered by the value of the commodities the purchase and sale of which it has made possible' (Hilferding [1910] 1981:64–65, emphasis added). Banks 'lubricate' the capitalist process through the payments and clearing mechanism, and they garner the bourgeoisie's 'idle capital' together with the 'idle money of all other classes, for use in production' (Hilferding [1910] 1981:90; see also Marx 1959:403). All this is perfectly true: banks assume ever greater control over finance–capital. However, following Schumpeter, I would argue that the distinctive character of capitalist banking lies in the creation of credit-money, not merely the collection of pre-existing 'little pools' into larger reservoirs for lending on (Schumpeter [1954] 1994:1113). In his attachment to the commodity theory, Hilferding was unable to see that a greater source of bank–capitalist power lay in the capacity to 'manufacture' money through the act of lending and the creation of new deposits.[13]

Similarly, more recent Marxist economists have continued to make a sharp distinction between money and credit, and to describe the latter as 'fictitious' (Harvey 1982; Foley 1983). Loan capital and credit are held to be 'fictitious' because they are based on 'value' which is yet to be either created or realized. This cumbersome and distorting formulation results in a number of related theoretical difficulties. First, the opposition between 'real' forms of money and 'fictitious' credit is false, and results directly from the tacit acceptance of the commodity theory of money and the conception of an underlying 'real' economy. As we shall see, Simmel ([1907] 1978) and others realized that more sense could be made of money with the assumption that all money was credit. In its narrow focus on 'real value', commodity theory could never satisfactorily explain the actual process of the production and circulation of 'coin' – as opposed to precious metal – and, for example, why clipped coins could circulate at their face value. Second, modern Marxist economics has continued Hilferding's quest to anchor credit-money theoretically in 'real' goods, whether or not they have actually been produced. For example, Lipietz refers to credit-money as the 'antevalidation' and 'pseudo-validation' of commodities (Lipietz 1985:91). This framework tends to foreclose the analysis of how credit-money is actually produced – that is, of the social relations of modern credit-money. As Keynes argued, the creation of credit-money represents neither actual 'real' saving nor 'real' commodity-money. At the point of its production, capitalist bank-money is a promise to (re)pay; that is, it is no more nor less than a social relationship.

Marx's pervasive influence on sociology is apparent in sociologists' general tendency to analyse economies in terms of 'relations of production'. Mann's attempt, for example, to write a sociological world history from the standpoint of the gradual extension of 'infrastructural' and 'despotic' social power is explicitly critical of Marxism's narrowly economic conception of power, to which he adds 'ideological', 'military', and 'political' organization as autonomous sources of social power. However, as with Marx, money itself in this scheme is epiphenomenal; 'economic power' and 'economic organization' are conceptualized entirely in terms of production and exchange (Mann 1986:25). Mann devotes considerable attention to the growth of the state's organizational control of finance, but monetary institutions as such are scarcely referred to. The growth of bank- and state-credit money in the 16th and 17th centuries is one of the most important foundations of the modern world, and should be considered a source of 'social' (economic) power *sui generis*, with its own conditions of existence. However, these critical developments are omitted from Mann's account.

Similarly, Runciman's quandary regarding ancient Rome's status as a 'capitalist' society might have been less perplexing if he had stepped outside the tacit Marxian and Weberian sociological orthodoxy concerning 'modes of production'. 'Rome's mode of production was capitalist', Runciman argues, 'in every respect except the dominance of a formally free labour force' (Runciman 1995:37). However, the Roman economy also lacked any kind of extensive banking system, let alone the credit-money-creating banks of early modern Europe.[14] The production and command of mobile credit-money was as important as formally free labour in the evolution of capitalism, and its mobility lay precisely in its non-commodity form as part of a new and complex social structure of debtor–creditor relations expressed in an abstract money of account.[15]

The most important attempts in sociology to gain a theoretical grasp of money were made by Simmel and Weber. These will be discussed in the following section. At present, I simply wish to reiterate that the recent attention given to Simmel's *The Philosophy of Money* has been almost entirely in relation to the sociological interpretation of 'modernity' (Dodd 1994). Most commentary has focused on Part II, which is concerned with the effects of money on, for example, 'Individual Freedom' (chapter 4) and 'Style of Life' (chapter 6). This one-sided emphasis has been at the expense of the neglected 'Analytical Part I', which belongs to the rich historical and sociological tradition in the analysis of the evolution of money that was stifled after the *Methodenstreit*. Similarly, Weber's understanding of money was informed by the debate between the 'theoretical' and 'historical' schools of economics. In typical fashion, he tried to effect a compromise, claiming both von Mises ('theory') and Knapp ('history') as the major influences on his thinking (Weber 1978:78). But Weber's writing on money is scarcely mentioned in the vast exegesis.[16]

3. Towards a 'social economics' of money

The commodity–exchange theory of money contains three closely related defects. These are more obvious in relation to modern forms of non-commodity credit or 'fiduciary' money, but they are also general deficiencies – that is to say, commodity theory is not even a good guide to commodity-money. First, in searching for 'moneyness' in 'money stuff' (the form or substance of money), commodity–exchange theory fails to recognize that all money is based on abstract systems of accounting for value. 'Money of account, namely that in which debts and prices and general purchasing power are expressed, is', as Keynes stressed, 'the primary concept of a theory of money' (Keynes 1930:3; Ingham 1996; Hoover 1996).[17] Second, commodity–exchange theory's preoccupation with the commodity form prevents it from developing an adequate explanation of the modern credit-money form (Ingham 1996). Third, the commodity–exchange theory is a 'market' theory, and accords a very limited and secondary role to the 'state' in the origins and maintenance of monetary systems.

Two alternative approaches did address these issues, but they remained marginal to mainstream economic thinking and were cut off from modern sociology after the *Methodenstreit* settlement. First, the German 'historical school' focused on money as an abstract unit of account in relation not only to market–exchange, but also to unilateral payments of debt (taxes, tithes, fines, wergeld, etc.) between a political community or 'state' and its members. Actual payment might be in kind or in a money form declared to be legal tender.[18] Second, from as early as the early medieval period onwards, money was understood not only as 'real' coin, but also as an abstract accounting system – that is, the 'imaginary money' by which the 'book-money' of debits and credits was created (Einaudi [1936] 1953). Later, in the early 19th century, the English 'Banking School', in opposition to the commodity theorist 'Currency School', sought to develop further the understanding of money not so much as a commodity, but as a 'promise' to pay – that is, as credit (Wray 1990; Smithin 1994; Schumpeter [1954] 1994). These lines of enquiry contained the germs of a 'credit theory of money' as opposed to a more orthodox '(commodity) money theory of credit' (Schumpeter [1954] 1994:717). Furthermore, as such theories required that attention be given to social relations and not only to exchange ratios between commodities, they were implicitly more 'sociological'.[19]

Money of account

The widely accepted late 19th century theory that money evolved as an efficient solution to the inconveniences of barter contains a fundamental lacuna. Maintaining a store of the commodity most in demand in order to ease the problems caused by an absence of a 'double coincidence of wants' – as Menger argued, does not in itself explain the existence of an abstract money accounting system that makes possible price lists and, more importantly, the recording of debt. Such systems of monetary calculation exist independently of any actual 'money stuff' that might be acceptable in exchange or payment. As Keynes dismissively observed: 'Something which is merely used as a convenient medium of exchange on the spot may approach being money . . . But if this is all, we have scarcely emerged from the stage of barter' (Keynes 1930:3).[20] Similarly, the historian and numismatist Grierson insists that it is not merely the marketability of the commodity that renders it 'money', but the fact that it is counted. The tobacco used as a medium of exchange in 17th-century Virginia, for example, was a 'money substitute', but became 'money', he argues, when its value was fixed at 3 shillings which, as they were not minted or in circulation, had a 'virtual' existence (Grierson 1977:17, 19).[21] Thus, I would argue, following Keynes and Grierson, that money is a *conceptual scheme* for the measurement of value, which lies behind any particular *form* that it might take as a means of payment – coin, paper, plastic, electronic, etc.

Is it reasonable to assume that an abstract money of account/measure of value emerges spontaneously from the 'natural propensity to truck barter and exchange'? Or does the very idea of money originate elsewhere and enable the development of markets based on diverse wants and preferences, the comparison of heterogeneous goods, and multilateral transactions? This latter position was taken by some of the German 'historians', and it would appear that Keynes followed their lead through his endorsement of Knapp's *State Theory of Money* and his own investigation of ancient middle eastern monetary systems (Keynes 1930). Grierson has presented a more thoroughly researched version of this thesis. Barter, it is argued, involves the comparison of individual needs and 'not values in the abstract' (Grierson 1977:19). The origins of such measurement systems are not to be found in the market, 'but in a much earlier stage of communal development, when worth and wergeld were interchangeable terms' (Grierson 1977:33). Wergeld ('worth-payment') comprised the scales of compensations for insults and injuries, which were used as alternatives to debilitating feuds and *lex talionsis* (Grierson 1977:28). Moreover,

> The conditions under which these laws were put together would appear to satisfy much better than the market mechanism the prerequisites for the

> establishment of a monetary system. The tariffs for damages were established in public assemblies, and . . . (s)ince what is laid down consists of evaluations of injuries, not evaluation of commodities, the conceptual difficulty of devising a common measure for appraising unrelated objects is avoided. (Grierson 1977:20–21)[22]

Apart from the valuable contribution to the historical record, granting analytical primacy to money of account as an abstract conceptual system for measuring value – *moneta imaginara* as opposed to *moneta real* (Einaudi [1936] 1953) – has considerable theoretical consequences (Hoover 1996). If money is essentially an abstract measuring system, then all 'money' (as opposed to simple media of exchange) is 'virtual', including not just 'modern' or even 'postmodern' money, as some social scientists have recently suggested (e.g. Leyshon & Thrift 1997:20–22, 28–30, and the implications in Giddens 1990). Furthermore, emphasis on the concept of money of account for the recording of debts and contracts is the necessary step towards a 'credit theory of money' (Schumpeter [1954] 1994:717; Hicks 1989; Hoover 1996), and the acknowledgement that money is best understood as a particular structure of social relations, and not merely an 'object' that mediates between other 'objects'.

The credit-money form and the 'dematerialization' of money

From around the mid-16th to mid-18th centuries, the money form in western Europe underwent an evolutionary transformation: it became progressively 'dematerialized' (Simmel [1907] 1978).[23] Signifiers of debt measured in money of account – that is, promises to pay – gradually became widely used as media of exchange and means of payment. Commodity money continued to function alongside these new forms until it was finally abandoned in the 20th century. There were two closely related sources of this change: first, money took the form of claims against banks, such as bills of exchange and promissory notes, etc.; and second, the form of claims against the state, which were held directly in the form of liquid bonds and became the basis for a 'fiduciary' issue of paper currency (Dickson 1967; Lopez 1979; Kindleberger 1984; Davies 1994; Carruthers 1996). In short, signifiers of both 'private' and 'public' debt became money. This was a complex and lengthy process, and here I wish only briefly to indicate the fundamental social structural changes that were involved in the growth of bank credit-money.[24]

Capitalist credit-banking practices had a number of sources, of which the bill of exchange was one of the most important.[25] They probably originated among Islamic traders and spread to the Mediterranean, where they were used extensively from the 14th century onwards in the European commercial system, which centred on the 'fairs' organized financially by the Italian city-state bankers (on the Islamic origins, see Udovitch 1979; Abu-Lughod 1989). The system required two networks, one of traders and another of bankers. A trader would draw a bill on a local banker, which he then used as payment for goods 'imported' from a considerable distance. The 'exporter' of the goods would present the bill to his local banker, who would make cash payment. The members of the banking networks would meet at regular intervals to settle their accounts and set the rates of interest on the bills (Boyer-Xambeu et al. 1994; Kindleberger 1984).

At this stage of development, the financial device involved trade-credit, and entailed only a partial, but nonetheless very important temporal and spatial dissociation from commodity-money and the other commodities it signified. As the bill directly represented goods in circulation, these technical innovations in the monetary system could be readily accommodated within the orthodox commodity–exchange theory of money. The bill of exchange could be seen as a 'neutral veil', as it was, for example, in the early 19th century, under the 'real bills' doctrine of credit-money (Smithin 1994). This was the position on credit taken by the 'metallists' and commodity theorists in the 19th century, including Marx and Hilferding, in addition to the orthodox 'classical' schools.

As banking networks became more extensive, a critically important 'mutation' occurred: the bills became detached from a direct relationship to any 'real' commodities, and began to serve as autonomous media of exchange and means of payment – so-called 'dry exchange'. The bills existed as 'pure' debt; that is to say, they were no longer based directly on 'goods', but rather on 'promises' to pay. In the early stages, this credit-money circulated in quite restricted capitalist networks. However, the liquidity of bills and other forms of paper, and the eventual creation of widely and generally accepted credit-money, were made possible by a second level of dissociation.

Having become detached from commodities, credit instruments such as bills of exchange (signifying debt) became detached from particularistic (person-to-person) debt relations. The social structural change that underpinned this critical step was the establishment in law and custom of the fungibility (negotiability or transferability) of debt.[26] This seems to be a clear example of diffusion: from early 16th-century Italy, through Holland, to its most successful development in late 17th-century England (Atiyah 1979:135–138; Weber [1927] 1992, chapter 20; Carruthers 1996:127–131). Bearers of a bill now had legal recourse against previous holders, and therefore creditors were able to transfer their claims on a debtor to a third party. In short, these changes enabled the transformation of personal indebtedness, recorded in units of account, into an impersonal means of payment – that is, money. The transition was slowly accomplished with the establishment of a mutually supportive network of promises to pay, based on a combination of banks and states (Ingham 1997).

Throughout the 18th and 19th centuries, the credit and banking system developed rapidly throughout the capitalist world, but it caused consternation for the 'metallists' and commodity–exchange theorists. Was credit-money 'really' money, and if so, what was the basis for its value? Orthodoxy continued to distinguish 'money' from 'credit', but as capitalist banking practice became the norm during the 19th century, there were moves to break with this conception. In the debates that preceded the English Bank Charter Acts of the 1840s, the 'Banking School' sought to conceptualize credit-money outside the commodity or metallist orthodoxy of their opponents in the 'Currency School'.[27] Later German 'historical' economists, such as Hildebrand and Knies, searched for the social and political (i.e. non-commodity) bases of money, and, in particular, of credit-money.

Orthodoxy's resistance to anything other than the commodity–exchange theory and the 'real' conception of the economy continued well into the 20th century. Insofar as the actual activity of banks was the subject of 'real' economic analysis, it was understood simply as intermediation between savers and borrowers – especially in transforming small deposits into larger loans, and in the reduction of transactions costs through the issuing and clearing of cheques and bills. In this view, banks acted as functionally effective 'lubricants', but did not change the operation of the underlying 'real' exchange economy.[28]

However, from the late 19th century, a growing number of economists observed that banking practice involved the 'manufacture' of money. Lending involved the creation of a deposit, recorded in a money of account, which stood in a relatively autonomous relationship to any incoming 'balance' of deposits. This difference has been expressed pithily in the distinction between the 'real' conception of banking practice, in which 'deposits make loans', and the 'credit' theory that 'loans make deposits' (Schumpeter [1954] 1994:1110–1117; see also Rogers 1989; Wray 1990). This is the essence of capitalist practice, that is, the speculative creation of bank-money for the production of future value. Moreover, credit-money consists in networks of promises to pay involving the particular interests of banks, credit-rating agencies and the state, which do not produce money simply in response to the functional 'needs' of production and exchange. Rather, this relatively autonomous production of credit-money makes possible ever more complex systems of production and exchange.[29]

With its model of exchange ratios between commodities 'veiled' by the neutral monetary signifier, economic orthodoxy had no way of conceptualising bank-money as a promise to pay, and therefore as a social relationship. But banking practice, including central banking, was the social practice of constructing credible rules for the production of promises to pay that were considered prudent and legitimate by all concerned. Keynes' *A Treatise on Money* sought a theoretically new economic understanding of bank-money, but he expressed it in an unequivocally 'social constructionist' manner:

> It is evident that there is no limit to the amount of bank-money which the banks can safely create *provided that they move forward in step.* The words italicized are the clue to the system . . . Each Bank Chairman sitting in his parlour may regard himself as the passive instrument of 'outside forces' over which he has no control; yet the 'outside forces' may be nothing but himself and his fellow chairmen, and certainly not his depositors. (Keynes 1930:26–27)

Soon after the publication of Keynes' *Treatise*, Robbins defined the theoretical essence of economics as the rational choice analysis of allocation under conditions of scarcity (Robbins

1935), and Parsons published his paradigmatic social theory in which there was a clear division of 'methodology' between itself and economics (Parsons 1937). Ironically, there was no place in this scheme for such a radically 'sociological' analysis of money and banking as Keynes had outlined. Consequently, the approach implied in *A Treatise on Money*, which was derived in part from the German social sciences, remained outside the reconstructed sociology of the mid-20th century.[30] Keynes' essentially 'sociological' formulations were also lost to economics; after its rehabilitation into orthodox neoclassical economics, most Keynesian monetary analysis focused on the *demand* for money in terms of the 'portfolio selection' and 'liquidity preference' of rational individual maximizers. The *actual production* of money has received little attention (see deCecco 1987:1–9). This emphasis on abstract systems for 'accounting' for debt, and the use of these instruments as media of exchange and means of payment, led further to a consideration of the proposition that all money was credit. To use Schumpeter's distinction, 'credit theories of money' – as opposed to 'monetary theories of credit' – gained wider acceptance, but they did not become orthodox in economics.[31]

Following the lead of the German 'historical school', Simmel put this case most forcefully: '(M)oney is only a claim against society. Money appears so to speak as a bill of exchange from which the name of the drawee is lacking.' Against this view, he noted that it is argued 'that credit creates a liability, whereas metallic money payment liquidates any liability; but', Simmel continued, ' this argument overlooks the fact that liquidation of the individual's liability may still involve an obligation for the community. The liquidation of every private obligation by money means that the community now assumes this obligation to the creditor' (Simmel [1907] 1978:177; see 174–179). In this view the monetary relationship is not primarily the economic exchange between transactors, but between the transactors and the monetary community which establishes its liquidity. In other words, money is not merely socially produced; rather, it is itself a social relation (Ingham 1996). It is commonly assumed even by its opponents that the commodity theory of money – in which money was a neutral signifier of real commodities – provides an adequate account of the era of commodity money, but not of its modern credit forms. But, as Simmel argued and Boyer-Xambeu et al. (1994) have shown, precious metal coinage of the medieval monetary system must be understood as an elaborate social system, part administered and part market. The transformation of a commodity (silver, gold) into money (coin with an exchange value expressed in a unit of account) cannot be explained without reference to the system of relations between the sovereign, mints, moneyers, money changers, bankers and traders. Not only do all forms of money have a fiduciary basis, they also consist in relations based on the calculation and realization of economic interests.

The state and money

The long continuity of disputes in economic thought involving widely divergent conceptions of the nature of money also involves an unresolved controversy over the proper role and function of the state in its creation.[32] The debate hinges on the extent to which economists depart from, first, a belief that money is essentially produced by the 'market', and, second, that such markets are self-regulating.

Outside the arcane realms of pure economic 'theory', which has no conceptual space for either money or the state (Ingham 1996), the issue remains contentious. A strong position regarding the self-regulating market has advocated 'free banking' in which money would be denationalized – that is, 'privatized', and issued by competing banks. 'Regulation' in the usual sense of administration, management and control would be unnecessary once market forces were allowed to function untrammelled by the state. The market in competing currencies would be self-regulating once individual rational appraisals had been freed from the inflationary behaviour of states and the 'moral hazard' created by central banks (see White 1984).

Aside from the problematic assumption of the self-equilibrating market, these theories tend to conflate the state's regulatory or 'public goods' role and its participation in the 'market' as an economic agent in its own right. From seignorage in the era of commodity money to the use of public debt as credit-money, states' own economic interests have been involved in the production of money. The 'monetarist' and 'free banking' advocacy of monetary deregulation, to the point of complete privatization, is based on the deprecation of the state as an economic player and, in particular, the use of its debt as the basis for fiduciary money. Unless checked, it is argued, this creates a constant source of increase to the money supply, and thereby inflation. Modern states have an interest in reducing the real value of their debt by tolerating, if not actively encouraging, inflation. This argument would reject any causal inference between the use of early modern states' promises to repay their debts as a base for a fiduciary issue of money, and the expansion of capitalism. Ultra monetarists and free bankers subscribe to the orthodox 'neutral veil' theory of money, in which its supply increases to match 'real' economic activity, unless distorted by an 'oversupply' from the chronically indebted state. Leaving aside this aspect of the controversy, evidence for the corollary, that a self-regulated 'market', comprising nothing other than rational maximizing individuals, would provide viable money, is extremely thin. Consequently, most mainstream economists subscribe to a weaker or agnostic view with regard to the efficacy or perfectibility of markets, assigning a 'public goods' role to the state in the provision and regulation of money. Within this perspective, there is wide range of disagreement as to the optimum extent of state involvement.

The absence of a satisfactory commodity–exchange or market theory of money lends weight to the theoretical case that authentic monetary systems require 'authoritative foundations': first, an agreed money of account; second, an acceptable and trusted means of payment (Grierson 1977; Keynes 1930); and third, substantive governance rules. The key question is whether these 'authoritative foundations' are necessarily a prerogative of the 'state'. The point is of critical importance in relation to the current 'leakage' of money out of the hands of modern sovereign nation states. On one level, this has occurred through the power of global financial corporations and their self-regulatory bodies, such as the Bank for International Settlements, and through the recent growth of other transnational regulatory and clearing mechanisms, private transnational credit-rating agencies, and in the plans for transnational currencies such as the 'Euro'. On another 'lower' level, local exchange trading schemes and their currencies represent further erosion of the state's influence. These are important issues which I shall pursue elsewhere. At present, I wish briefly to discuss a further dimension of the state's involvement with money which highlights the contribution sociological analysis might make to what are usually seen as unequivocally 'economic' problems. Whilst it is generally acknowledged that sociology could contribute to the understanding of the 'authoritative foundations' outlined above, the problem of the 'value' of money remains firmly in the domain of economics.

An abstract nominal money of account is the foundation for genuinely monetary systems, but the extreme 'cartalist' (or 'state') theory that 'money is a *value* created by law' (Barbon, late 17th century, quoted in Schumpeter [1954] 1994:296) is equally untenable as the more orthodox economic theory that money is a 'value' created by individual calculation of utility. An authority might enforce a nominal unit of account and means of payment as currency, but it is obvious that money's acceptability and utility can never be simply a matter of its *formal validity*. In his critique of Knapp's *State Theory of Money*, Weber pointed out that money must also possess a *substantive validity*; that is to say, there must be a reasonable expectation that it will hold its exchange value over time. But neither the 'state' nor any other administrative organization can produce at will the invariant standard by which money can perform its essential functions. Leaving aside the effects of its own fiscal activities, it can only provide the 'footing' or 'standard' as a basis for the subsequent determination of money's stability.[33] In his application of Austrian economics' general defence of the market, Weber averred that money can never be a 'mere 'voucher' for unspecified utilities'; its purchasing power can only be established through the struggle between producers and possessors of both money and goods: 'Prices are expressions of the struggle; they are instruments of calculation only as estimated quantifications of relative chances in this struggle of interests' (Weber 1978:108; see also Hoover 1996).[34]

If we accept that the production of money and the production of goods are relatively autonomous social processes, then this 'struggle for economic existence' by banks, corporations, labour and the state itself also involves an inescapable contradiction. Establishing the substantive validity of money ('value') *necessitates* an ever-present threat of an 'over' or 'under' supply of money in relation to goods. In other words, the relative stability of an effective money system can only be achieved at the risk of instability – that is, through the free play of conflicting interests. In particular, capitalism is constituted not only by formally free capital and labour, but also by 'free' credit creating banks. Consequently, there is a constant tension and trade-off between the expansion of value through the creation of credit (and debt), and the breakdown of monetary stability through its over-expansion in relation to production (Hirsch & Goldthorpe 1978; Maier 1978; Rowthorn 1977; Mirowski 1991).[35] Thus, capitalism moves through cycles of monetary regulation and deregulation, booms and recessions. The symbiosis and dialectical struggle between the state and money-capital is at the centre of these fluctuations. On the one hand, states' debts continue to be highly profitable for bank capital and, with the absolute 'dematerialization' of money, the most trusted and viable of the promises to repay these debts have become base-money for the entire system. In addition, states provide regulation and safety nets in the event of systemic bank collapse. On the other hand, in the search for profit, money-capital first constantly seeks to break loose from such systems of regulation (Davies 1994), and secondly, threatens the stability of these base-money currencies through the speculative pursuit of short-term gain on the exchanges.

From this perspective, it is clear that the 'problem' of monetary stability in capitalism cannot be solved permanently by technically 'correct' economic policies (Hirsch & Goldthorpe 1978). Rather, the control of inflation involves a continuous rebalancing of the power relations between economic interests – in particular, but not only, those between (potential) debtors and creditors, including the state (see Smithin 1996).[36] It is conceivable that modern states, as we know them, might one day cease to be the world's primary political agencies; however, until that time, they will continue play a major role as participants in and as regulators of the 'struggle for economic existence'.[37]

4. Concluding remarks

The study of money has been seriously impaired by the disciplinary fragmentation of history and the social sciences, and the insinuation – via economics – of the distorting assumptions that underpin the conception of the 'real' economy and its equally deficient, anachronistic commodity theory of money. Fortunately, there are signs that these shortcomings will be addressed in the work of a number of economists, sociologists, social geographers and others disaffected by the conventional confines of their disciplines. The essential social nature of money has been stressed in this recent work, but it is vitally important that the social sciences do not fall into the role of 'under-labourers' for mainstream economics in simply providing a more 'social' conception of money's non-economic foundations. In this regard, social theories of money need to restate forcefully that money itself is constituted by social relations and practices (Baker 1987; Dodd 1994; Ingham 1996; Leyshon & Thrift 1997). Recent sociology's revived interest in money has focused on the generation of 'trust' in money, and in the social and political construction of money through 'information networks', 'discourse', 'expert systems' (Giddens 1990; Dodd 1994; Leyshon & Thrift 1997) and the social 'meaning' of money (Zelizer 1994). These contributions are important, but any tendency to 'sociologize' the approach should be balanced by a recovery of some responsibility for what are seen as 'economic' problems, such as inflation, the supply of credit, the determination of interest rates and so on. Sociology should work towards the (re)construction of a theory of the means and social relations of the production of money, in which monetary 'discourse' and 'meanings' are related to the power struggles at the centre of its production. Orthodox economics' functionalism and methodological individualism has prevented a theoretical understanding of the fact that money is not merely an efficient and 'neutral' cost-reducing lubricant of exchange for the rational individual, or a *numeraire* in a self-equilibrating market comprising 'real' values. It is also 'primarily a weapon in the economic struggle' (Weber 1978:107–108). Seen in this way, it is clear that money does not appear in automatic response to the 'needs' of a 'real' economy, nor as an unmediated outcome of individual demand for utility. Rather, money as a system for accounting for value has autonomous conditions of existence insofar as monetary systems are distinct and separate from the production of commodities. In this sense, all money is 'fictitious' or 'virtual' in the process of its production, and its integration with the production and exchange of commodities in the establishing of value is a problematic and precarious accomplishment which is the outcome of conflict (Mirowski 1991). Following Weber, this must be so if money is to perform its functions not simply as a medium of exchange, but as a means for the calculation and transportation of value through time and space. Consequently, monetary 'disorders' are not remediable in any absolute or final sense; they are, rather, the 'price' that is paid for money's unique capacity and powers.

First version received July 1997
Final version accepted November 1997

Notes

[1] As Jevons pointed out in late 19th century, barter requires a 'double coincidence of wants' – that is, **a** has ducks but wants chickens at the same time that **b** has chickens but wants ducks. Money permits the decentralized multilateral exchange of heterogeneous goods (Ostroy & Starr 1974).

[2] The dispute is as old as economics itself. See Schumpeter ([1954] 1994); and Smithin (1994) for a recent excellent and accessible survey.

[3] According to Hahn: 'The most serious challenge that the existence of money poses to the theorist is this: the best models of the economy cannot find room for it.' (Hahn 1982:1; see also Hoover 1996).

[4] There were two fundamental methodological issues. In addition to the wrangle over the relevance of deductive 'theory', the protagonists were also divided on the issue of the relationship between 'science' and 'policy'. A similar, more muted dispute occurred in England, but the result was very similar across the inceasingly professionalized academia: '. . . the historical school was politely relegated to a sort of interdisciplinary no-man's land as being more concerned with ethics and social policy precepts . . . than with pure, universally valid (rather than historically relative) economic science'. (Deane 1978:103) The English economists had also considered and, not without good reason, completely rejected Comte's critique of political economy and his claim that sociology was the unified 'queen' of the social sciences (Swedberg 1987:15–16). With regard to money, the 'historians' Hildebrand, Knies, and a little later, Knapp, are particularly important. See the secondary analysis in Einzig (1966) and Schumpeter ([1954] 1994).

[5] See Ganssman's reference to 'von Wiese's curse', that is, 'a distinction between economics and sociology so simple that it appears irresistible. Economics is to deal with man–matter relations and sociology with man–man relations' (Ganssman 1988:286–287). See also Weber's similar formulation of the distinction between economic and social action (Weber 1978:63–64). In addition, such is the dominance of the axiomatic–deductive method that most mainstream economic theorists now proceed as if any knowledge of what they refer to as social 'context' was redundant and, indeed, some actually argue the case (see Williamson 1994).

[6] According, for example, to one of this century's most influential economists, the Nobel prize winner Paul Samuelson: '. . . even in the most advanced industrial economies, if we strip exchange down to its bare essentials and peel off the obscuring layer of money, we find trade between individuals and nations largely boils down to barter' (Samuelson 1973, quoted in Wray 1990:55). Note also the 'real economy' assumptions implied in the title of Samuelson's paper: 'An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money' ([1958] 1996).

[7] The 'New Monetary Economics' argues that modern information technology provides a solution to the inefficiencies of direct barter, and has raised the possibility of more extensive barter–credit transactions in increasingly cashless economies. Local exchange trading schemes (LETS) with their local 'currencies' are essentially barter–credit systems, based on a labour-time standard. The issue is theoretically intriguing in relation to the question of 'embeddedness' of the trading schemes in 'local' trustworthy networks, and whether these limit the extention of the circulation of local 'pseudo-currencies'. In other words, does 'money', as opposed to barter–credit exchange, require an irreducible level of impersonal trust or legitimacy that does not permit a narrowly technological solution? See Smithin's (1994) remarks on the 'New Monetary Economics'.

[8] The question of 'primitive money' became a central issue in the sterile formalist–substantivist debate on the applicability of deductive economic theory to 'pre-modern' societies. In short, the 'formalists' defined money as commodity which functioned as a medium for market exchange, and concluded that 'primitive' or non-market societies could not, therefore, possess proper money (see Dalton 1976; Melitz 1974; Einzig 1966. For critique, see Polanyi 1957. For references to the historiography of classical Greece, see Davies 1994).

[9] See, for example, Giddens (1990). Ganssman has justifiably observed that such appeals to trust and confidence have 'as much explanatory value as saying that credit comes from *credere*' (Ganssman 1988:293).

[10] Marxist economists frequently assert that 'money is a social relation', by which they mean that economic relations are 'really' social relations mediated or symbolized by money (see Foley 1987). I am arguing that money actually *is* a social relation – or, rather, a complex structure of social relations.

[11] Leyshon and Thrift appear to be moving to a similar revision of their earlier, more favourable view of Marx's theory of money which had been influenced by Harvey's exegesis (Leyshon & Thrift 1997:42–58).

[12] Hilferding dismisses Knapp's sociological 'state' theory for 'eschewing economic explanation'.

[13] Mandel's (1968) *Marxist Economic Theory* presents an excellent account of the development of credit and fiduciary money (Vol. I, chapters 7 and 8), but then argues that only '(m)etallic currency, a product of human labour, possesses an intrinsic value' (258).

[14] As late as the 15th century, deposit banks operated, at least in principle, with 100 per cent reserves (Kindleberger 1984; see also Ingham 1997).

[15] Schumpeter argues throughout his *History of Economic Analysis* ([1954] 1994) that capitalist banking involves the 'manufacture' of money by the creation of deposits through lending. Credit affects the workings of the capitalist engine, 'so much so as to become an essential part of it without which the rest cannot be understood at all' (318; see 317–321). It would appear that Schumpeter was Braudel's source for his emphasis on early modern banking and the monetary aspects of capitalism in his trilogy *Civilization and Capitalism*. (See Braudel Vol. I, [1975] 1985:475–476). The movement of money and finance to centre stage in the interpretation of the development of world capitalism is apparent in Arrighi (1994). For development of this argument, see Ingham (1997).

[16] For example, Holton and Turner's *Max Weber on Economy and Society* devotes only one page to money, and even this is in relation to Simmel's analysis of money as 'the symbol and effect of abstract social relations' (Holton & Turner 1989:100–111).

[17] In this view, money is defined as money of account by which prices of goods and debts are expressed, and the means of payment for the goods or discharge of debt. The medium of exchange function follows. It is critically important to note that the converse is not true; that is, the unit of account and means of payment functions are not covered by medium of exchange.

[18] Based on this analysis, Knies added means of payment to the standard Jevons list of money's functions (see Melitz

1974). In the context of the *Methodenstreit*, this so incensed Menger that he foolishly insisted that money had only one function – as a medium of exchange.

[19] These alternative emphases in economics – on abstract money of account, credit-money and the state – come together in Keynes' *A Treatise on Money*, with which he intended to remedy the absence of a 'printed treatise . . . which deals systematically and thoroughly with the theory and facts of *representative money* as its exists in the *modern world*' (Keynes 1930:vii, emphasis added). His views differed from the orthodox position in thc implication that money cannot be understood simply as a commodity in relation to other commodities, or as a 'veil' over the 'real' relations between commodities.

[20] In the posthumously published *A Market Theory of Money* (1989), Hicks arrived at the same position after a lifetime of economic orthodoxy. See Ingham (1996).

[21] Note also that the 'money stuff' might be 'countable-useful' (slaves, cattle, furs) or 'countable-ornamental' (teeth, beads, shells) (Grierson 1977:33).

[22] I have suggested elsewhere that this argument could be expressed as a Durkheimian proposition that abstract money of account/measure of value is a 'collective representation' for which the analogue is the structure of society, in both its 'moral' and 'utilitarian' dimensions (Ingham 1996).

[23] Although it is not explicitly acknowledged, Simmel was undoubtedly influenced by the analysis of the German 'historical school', particularly Hildebrand's theory of the 'stages' of monetary development: from barter, to commodity-money, to credit-money. It has become commonplace to criticize such developmental theories on the grounds that the 'stages' are not discrete, and that different forms of money co-exist (Kindleberger 1984:21, citing Postan & Braudel). This would seem to be making unduly harsh judgements. If one allows for 'overlap' and rejects any form of teleological evolution, the general historical description has some validity.

[24] There were also technical advances in the means of monetary production which enabled more effective moneys of account; for example, Arabic, as opposed to Roman numbering, and double-entry bookkeeping. On the former, see Bernstein (1996), and on the latter, see Thompson (1994). As Hoover stresses in quoting Gertrude Stein: 'Men can count, and they do, and that is what makes them have money' (1996:204). However, credit-money is not simply a matter of accounting, but also the development of a social structure of depersonalized debtor–creditor relations.

[25] When 'notes' and 'bills' became more 'liquid', this greatly enhanced the creation of credit-money by deposit banks, which now included their creditors' promises to pay as part of their deposit base from which to make further loans. When some states had become fiscally secure and constitutionally legitimate, their promises to pay became base money for the banking network. The removal of state debt from the sovereign's personal responsibility in the bourgeois city-states, republics and constitutional monarchies of the early modern period led to an enormous extension of credit-money in capitalist Holland and England (Hicks 1969; Dickson 1967). Orthodox economic theory has focused on goldsmiths' receipts for precious metals left with them for safekeeping as the precursor of bank notes. Such notes directly represented 'real' commodities and could be used as their proxy, but they were not as important as bills of exchange in the development of modern credit-money.

[26] As Boyer-Xambeu et al. (1994) point out, medieval commodity-money was a sign of sovereignty, and it took several centuries for jurists to discard the medieval concept that all money belonged to the prince (47–48). In other words, depersonalized market money was the outcome of a very long period of evolution, and did not emerge from 'natural' economic exchange.

[27] For accessible account of the crucially important dispute between the Currency and Banking Schools on the definition and theory of money, see Wray (1990), Smithin (1994), and Kindleberger (1984). Significantly, many of the credit theorists had *practical* provincial banking experience.

[28] As late as 1921, the eminent economist Cannan put the case against the credit-money theorists with his cloakroom analogy. If a cloakroom attendant loans out the bags left with him, this would not involve, Cannan maintained, the 'creation' of more bags, and moreover, they would have to be recovered from the borrowers before the owners could use them. It was a remarkable misunderstanding of the distinctive feature of bank-money, by which both depositors and borrowers have simultaneous use of the 'same' money, and of the fact that borrowing creates money through the creation of debt expressed as 'book money' (Schumpeter [1954] 1994:1113–1114).

[29] Note, for example, how Mizruchi and Stearns's sociological surveys tacitly endorses the orthodox economic functionalist argument that 'As economies become more complex . . . barter systems become increasingly cumbersome' (314).

[30] Although there was no direct link between their work, Keynes and Weber shared the same high opinion of Knapp's *State Theory of Money* and other sources from the German historians' approach.

[31] Aside from post-Keynesian theories of endogenous money, other economists have moved towards a 'credit theory of money'. After an academic lifetime of thought on the question, Hicks recanted his orthodoxy and rejected the distinction between 'money' and 'credit', maintaining that 'the evolution of money is best understood if one starts with credit' (Smithin 1994:25). As I have suggested elsewhere, this reluctance to see money as credit, and therefore to abandon the distinction between money and credit, is entirely a consequence of orthodox economic methodology and the effort theoretically to anchor money in the model of the 'real' economy, comprising exchange ratios between commodities, mediated by individual utility maximization.

[32] The debates have involved 'metallists' and commodity theorists, the Currency School of the mid-19th century, and the monetarists of the 20th century. Against them, monetary 'nominalists', the Banking School, 'cartalists' or 'state theorists', and some Keynesians have paid more attention to social and political relationships and institutions which lie outside their opponents' narrowly conceived idea of the 'real' economy of commodity exchange. Schumpeter ([1954] 1994) remains an accessible guide to the older controversies; for the more recent disputes, including 'monetarism' versus 'Keynesianism' and beyond, see Smithin (1994, 1996).

[33] 'Footing' refers to the relationship between money of account and fineness and/or weight of the precious metal. It was the main instrument of official monetary policy in medieval Europe (Boyer-Xambeu et al. 1994).

[34] In line with his effort to transcend the emerging separation of economics and the other social sciences, Weber argued that both state and market were essential in the production of money. In his stimulating discussion, Dodd (1994) tends to underestimate Weber's agreement with economists such as von Mises. Weber used the economists' arguments in his own rejection of the possibility of socialist calculation with a purely nominal administrative money. See Bottomore (1990) for the socialist calculation debate of the 1920s and 1930s. Weber's argument remains of great theoretical importance for the sociology of money, and also for the recent investigations of local exchange trading tokens

(see Williams 1996). In Weber's terms, these are voucher–barter – not truly monetary – systems.

[35] During the hyperinflation of the 1970s in western societies, there was the promise of a genuinely sociological analysis of the production of money, but this faded with ensuing deflation. Like its counterpart in economics, it focused one-sidedly on the demand for money, and neglected the analysis of its supply (see Hirsch & Goldthorpe 1978; Gilbert 1986).

[36] As this is an essentially contested process, there can be no consensual agreement in advance as to the 'correct' or optimum strategy to balance money and goods. Furthermore, it must be stressed that the situation is not remediable by more information or the reduction of uncertainty, as orthodox economics would argue.

[37] For analysis of the role of states in political construction and regulation of international monetary regimes, and, in particular, their part not only in the creation of but also the disintegration and dismantling of the postwar Bretton Woods system, see Helleiner (1994) and Kapstein (1994).

References

Abu-Lughod, J. 1989. *Before Hegemony: The World System, A.D. 1250–1350.* Oxford: Oxford University Press.

Arrighi, G. 1994. *The Long Twentieth Century.* London: Verso.

Atiyah, P. S. 1979. *The Rise and Fall of the Freedom of Contract.* Oxford: Clarendon Press.

Baker, W. 1987. What is Money? A Social–Structural Interpretation. *In* M. Mizruchi & B. Schwartz (eds.), *Intercorporate Relations: A Structural Analysis of Business*, pp. 109–144. Cambridge: Cambridge University Press.

Bernstein, P. L. 1996. *Against the Gods: The Remarkable Story of Risk.* Chichester: John Wiley.

Bottomore, T. 1990. *The Socialist Economy.* Hemel Hempstead: Harvester Wheatsheaf.

Boyer-Xambeu, M. T., Deleplace, G. & Gillard, L. 1994. *Private Money and Public Currencies: The Sixteenth Century Challenge.* London: M. E. Sharpe.

Braudel, F. 1985. *Civilization and Capitalism: The Structures of Everyday Life.* London: Fontana.

Carruthers, B. G. 1996. *City of Capital: Politics and Markets in the English Financial Revolution.* Princeton: Princeton University Press.

Cutler, A., Hindness, B., Hirst, P. & Hussain, A. 1978. *Marx's 'Capital' and Capital Today: Volume Two.* London: Routledge & Kegan Paul.

Dalton, G. 1976. *Tribal and Peasant Economies.* Austin: Texas Press.

Davies, G. 1994. *A History of Money.* Cardiff: University of Wales Press.

Deane, P. 1978. *The Evolution of Economic Ideas.* Cambridge: Cambridge University Press.

de Cecco, M. 1987. *Changing Money: Financial Innovation in Developed Countries.* Oxford: Blackwell.

Dickson, P. 1967. *The Financial Revolution in England.* New York: St. Martin's Press.

Dodd, N. 1994. *The Sociology of Money.* Cambridge: Polity Press.

Einaudi, L. 1953 [1936]. The Theory of Imaginary Money from Charlemagne to the French Revolution. *In* F. Lane & J. Riemersma (eds.), *Enterprise and Secular Change*, pp. 229–261. London: Allen & Unwin.

Einzig, P. 1966. *Primitive Money.* London: Pergamon Press.

Foley, D. 1983. Credit and Fictitious Capital. *In* T. Bottomore (ed.), *A Dictionary of Marxist Thought*, pp. 99–100. Oxford: Blackwell.

Foley, D. 1987. Money in Economic Activity. *In* J. Eatwell (ed.), *The New Palgrave: Money*, pp. 248–262. London: Macmillan.

Ganssman, H. 1988. Money – a Symbolically Generalized Medium of Communication? On the Concept of Money in Recent Sociology. *Economy and Society*, 17, 285–315.

Giddens, A. 1990. *The Consequences of Modernity.* Cambridge: Polity Press.

Gilbert, M. 1986. *Inflation and Social Conflict: A Sociology of Economic Life in Advanced Societies.* Brighton: Wheatsheaf.

Grierson, P. 1977. *The Origins of Money.* London: University of London, Athlone Press.

Hahn, F. 1982. *Money and Inflation.* Oxford: Blackwell.

Hart, K. 1986. Heads or Tails: Two Sides of the Coin. *Man*, 21, 637–652.

Hart, K. 1990. The Idea of Economy: Six Modern Dissenters. *In* R. Friedland & A. Robertson (eds.) *Beyond the Marketplace*, pp. 137–160. New York: Aldine de Gruyter.

Helleiner, E. 1994. *States and the Reemergence of Global Finance.* Ithaca, New York: Cornell University Press.

Hicks, J. 1969. *A Theory of Economic History.* Oxford: Clarendon Press.

Hicks, J. 1989. *A Market Theory of Money.* Oxford: Clarendon Press.

Hilferding, R. [1910] 1981. *Finance Capital.* London: Routledge & Kegan Paul.

Hirsch, F. & Goldthorpe, J. H. (eds.) 1978. *The Political Economy of Inflation.* London: Martin Robertson.

Holton, R. J. & Turner, B. S. 1989. *Max Weber on Economy and Society.* London: Routledge & Kegan Paul.

Hoover, K. 1996. Some Suggestions for Complicating the Theory of Money. *In* S. Pressman (ed.), *Interactions in Political Economy*, pp. 204–216. London: Routledge.

Ingham, G. 1996. Money is a Social Relation. *Review of Social Economy*, 54, 507–529.

Ingham, G. 1997. Capitalism and Money: A Critique and Emendation of Recent Historical Sociology. Unpublished manuscript, Christ's College, Cambridge.

Jones, R. A. 1976. The Origin and Development of Media of Exchange. *Journal of Political Economy*, 84, 757–775.

Kapstein, E. 1994. *Governing the Global Economy.* Cambridge, MA: Harvard University Press.

Keynes, J. M. 1930. *A Treatise on Money.* London: Macmillan.

Kindleberger, C. 1984. *A Financial History of Western Europe.* London: Allen & Unwin.

Leyshon, A. & Thrift, N. 1997. *Money/Space.* London: Routledge & Kegan Paul.

Lipietz, A. 1985. *The Enchanted World: Inflation, Credit and the World Crisis.* London: Verso.

Lopez, R. 1979. The Dawn of Modern Banking. *In* Center for Medieval and Renaissance Studies, University of California, Los Angeles, *The Dawn of Modern Banking*, pp. 1–18. New Haven: Yale University Press.

Machlup, F. 1978. *Methodology of Economics and Other Social Sciences.* New York: Academic Press.

Maier, C. The Politics of Inflation in the Twentieth Century. *In* J. H. Goldthorpe & F. Hirsch (eds.), *The Political Economy of Inflation*, pp. 37–72. London: Martin Robinson.

Mandel, E. 1968. *Marxist Economic Theory.* Vol. I. London: Merlin Press.

Mann, M. 1986. *The Sources of Social Power.* Cambridge: Cambridge University Press.

Marx, K. 1959. *Capital: Vol. III.* London: Lawrence & Wishart.

Marx, K. 1976. *Capital: Vol. I.* Harmondworth: Penguin Books.

Melitz, J. 1974. *Primitive and Modern Money.* Reading, MA: Addison Wesley.

Menger, K. 1892. On the Origins of Money. *Economic Journal*, 2, 239–255.

Mirowski, P. 1991. Postmodernism and the Social Theory of Value. *Journal of Post Keynesian Economics*, 13, 565–582.

Mizruchi, M. & Stearns, L. 1994. Money, Banking and Financial

Markets. *In* N. Smelser & R. Swedberg (eds.), *The Handbook of Economic Sociology*, pp. 313–341. Princeton: Princeton University Press.
Ostroy, J. M. & Starr, R. M. 1974. Money and the Decentralization of Exchange. *Econometica*, 42, 1093–1113.
Parsons, T. 1934. Some reflections on 'The Nature and Significance of Economics'. *Quarterly Journal of Economics*, 46, 511–545.
Parsons, T. 1937. *The Structure of Social Action*. New York: Free Press.
Parsons, T. 1940. Motivation of Economic Activities. *Canadian Journal of Economics and Political Science*, 6, 187–203.
Parsons, T. 1950. *The Social System*. New York: Free Press.
Parsons, T. 1991 [1953]. The Marshall Lectures. *Sociological Inquiry*, 61, 10–59.
Parsons, T. & Smelser, N. 1956. *Economy and Society*. Glencoe Ill: The Free Press.
Polanyi, K. et al. 1957. *Trade and Markets in the Early Empires*. Chicago: Henry Regnery.
Robbins, L. 1935. *The Nature and Significance of Economic Science*. London: Allen & Unwin.
Rogers, C. 1989. *Money, Interest and Capital*. Cambridge: Cambridge University Press.
Rowthorn, R. E. 1977. Conflict, Inflation and Money. *Cambridge Journal of Economics*, 1, 1.
Runciman, W. G. 1995. The 'Triumph' of Capitalism as a Topic in the Theory of Social Selection. *New Left Review*, 210, 33–47.
Schumpeter, J. [1954] 1994. *A History of Economic Analysis*. London: Routledge & Kegan Paul.
Simmel, G. [1907] 1978. *The Philosophy of Money*. London: Routledge & Kegan Paul.
Smithin, J. 1994. *Controversies in Monetary Economics*. Aldershot: Edward Elgar.
Smithin, J. 1996. *Macroeconomic Policy and the Future of Capitalism*. Aldershot: Edward Elgar.
Swedberg, R. 1987. Economic Sociology: Past and Present. *Current Sociology*, 35, 1–216.
Thompson, G. 1994. Early Double-Entry Bookkeeping and the Rhetoric of Accounting Calculation. *In* A. G. Hopwood & P. Miller (eds.), *Accounting as Social and Institutional Practice*, pp. 40–59. Cambridge: Cambridge University Press.
Udovitch, A. 1979. Bankers without Banks: Commerce, Banking and Society in the Islamic World of the Middle Ages. *In* Center for Medieval and Renaissance Studies, University of California, Los Angeles, *The Dawn of Modern Banking*, pp. 255–273. New Haven: Yale University Press.
Weber, M. [1927] 1992. *General Economic History*. New Brunswick, NJ: Transaction Publishers.
Weber, M. 1978. *Economy and Society* Vol. I. Berkeley: University of California Press.
White, L. H. 1984. *Free Banking in Britain: Theory, Experience and Debate*, 1800–45. Cambridge: Cambridge University Press.
Williams, C. 1995. The New Barter Economy. CUDEM Working Paper no. 22. Leeds Metropolitan University.
Williamson, O. 1994. Transaction Cost Economics and Organization Theory. *In* N. J. Smelser & R. Swedberg (eds.), *The Handbook of Economic Sociology*, pp. 77–107. Princeton: Princeton University Press.
Wray, R 1990. *Money and Credit in Capitalist Economies*. Aldershot: Edward Elgar.
Zelizer, V. 1994. *The Social Meaning of Money*. New York: Basic Books.