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Economic Sociology: European Electronic Newsletter

**Provided in Cooperation with:**
Max Planck Institute for the Study of Societies (MPIfG), Cologne

Suggested Citation: Ingham, Geoffrey (2004) : The nature of money, Economic Sociology: European Electronic Newsletter, ISSN 1871-3351, Max Planck Institute for the Study of Societies (MPIfG), Cologne, Vol. 5, Iss. 2, pp. 18-28

This Version is available at:
http://hdl.handle.net/10419/155831

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# THE NATURE OF MONEY

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In a series of papers over the past five years or so and now in a forthcoming book (*The Nature of Money*, 2004), I contend that the methodology of orthodox economics is quite unable to explain the existence of money. Furthermore, sociology has failed properly to build on the superior alternative explanations - for example, seventeenth and eighteenth century 'credit theory' and the nineteenth century Historical School's 'state theory' which influenced Weber and Simmel. As Randall Collins perceptively remarked, it is as if modern sociology has neglected money because it was not thought to be 'sociological enough' (Collins 1979). Since this observation, there has been a revival of interest (Dodd 1994; Zelizer 1994; Carruthers and Babb 1996; Leyshon and Thrift 1997; Hart 2000). But there is a considerable way to go. In the first place, money is still given scant treatment in representative economic sociology texts; for example, Carlo Triglia's *Economic Sociology* (2002) devotes only three pages to it. In contrast to the other economic institutions covered in this important textbook, the author had very little in the way of sociological material on which to draw. Neil Fligstein's *The Architecture of Markets: An Economic Sociology of the Twenty-First Century Capitalist Societies* (Fligstein 2001) – another exemplary work – does not contain any discussion of what is, arguably, the pivotal institution of modern capitalism. There is not even an entry for 'money' in the index. Apart from a ritual reiteration of the obvious importance of 'trust', sociology has not been concerned with the social and political production of money. With a few notable exceptions (for example, Carruthers and Babb 1996), modern sociology is almost entirely concerned with very general descriptions of the consequences of money for 'modern' society (Giddens, 1990), its 'social meanings' (Zelizer 1994), and, more indirectly, with the Marxist problem of 'finance capital'. Money's existence has been taken for granted.

As I have implied, this state of affairs is the result of the division of intellectual labour that occurred in the social sciences after the *Methodenstreit*. Economics abandoned any theoretical interest in the ontology of money and sociology appeared to shun those very sociological and historical questions about money that were an essential part of the methodological battles. Outside the Marxist schools, sociology began to redefine its interest in the economic realm in terms of the 'social' and 'cultural'.[1] It is significant that most interpretations of *The Philosophy of Money* have taken Simmel at his misleading word that *The Philosophy of*

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[1] A recent article in the *Journal of Classical Sociology* entitled 'The Sociology of the Sociology of Money' makes no reference to the intellectual relationships between economics and sociology and argues that the 'sociological study of money can … be appropriated by the new cultural studies' (Deflem 2003: 67).

*Money* is not really about money, but rather about how money expresses the essence of modern life (Dodd 1994: 175). This one-sided emphasis on the cultural and the narrowly social would not matter if economics, during its long twentieth century hegemony, had provided an adequate explanation of money's existence and functions; but, as I have already pointed out, it did not. Counterintuitively, orthodox mainstream economic theory, as this developed from the late nineteenth century, concluded that money itself was not analytically significant. The fundamental meta-theory is expressed in the model of a 'real' economy comprising myriad bilateral exchanges between rational maximizing agents. Money is seen as a 'neutral veil' over these essentially barter exchanges (for a concise account of the economic orthodox mainstream, see Smithin 2003). That is to say, the 'real' economy model does not acknowledge that there is a structural difference between barter and money exchange. As a Nobel Prize winner explained: 'Even in the most advanced industrial economies, if we strip exchange down to its barest essentials and peel off the obscuring layer of money, we find that trade between individuals or nations largely boils down to barter' (Samuelson 1973: 55).

In short, the fundamentally important question of the nature of money somehow got lost in the post-*Methodenstreit* fragmentation of the social and historical sciences.

### Money's Puzzles and Paradoxes

Despite the non-essential and 'neutral' analytical status accorded to money, its 'functions' are none the less described by economics in terms of the familiar economics textbook list. Significantly, this evades any sustained consideration of the ontology of money – rather, 'money is what money does'.[2] It is a medium of exchange, store of value, means of unilateral payment (settlement), and measure of value (unit of account). The contradiction between these 'functions' and the conception of the 'neutral' monetary 'veil' in abstract economic theory is immediately apparent. Each function is fundamental for the continuance of routine activity in the modern capitalist world. In the first place, as Adam Smith and the classical economists made clear, a medium of exchange, makes for the efficient operation of the division of labour and exchange of products that creates the 'wealth of nations'. Secondly, and perhaps most remarkably, money is able to store abstract value, as pure purchasing power, for longer periods than is necessary for any particular exchanges. The consequences of this property define the freedom and flexibility of the modern world. A feudal lord could demand specifically a quantity of honey and poultry from his serfs and thereby directly determine their labour; '[b]ut the moment he imposes merely a money levy the peasant is free, insofar as he can decide whether to keep bees or cattle or anything else' (Simmel 1978 [1907]: 285-6). With money, decisions can be deferred, revised, reactivated, cancelled; it is 'frozen desire' (Buchan 1997). But, '[a]ll of these consequences are dependent on what is, in principle, the most important fact of all, the possibility of monetary calculation …' (Weber 1978: 80-81). This third attribute of money, as a measure of value (money of account),

[2] In 1878 the American economist Francis Walker decided to put the 'metaphysics' of money aside and to be guided by this simple functionalist assumption, which subsequent generations of economists have followed (Schumpeter 1994 [1954]: 1086).

enables the calculation of actual and potential costs and benefits, profits and losses, debts, prices. In short, money is the basis for the progressive rationalization of social life.

However, money should not be seen simply as a useful instrument; it has a dual nature. Money does not merely have 'functions' – that is to say, beneficial consequences for individuals and the social and economic system. In Mann's terminology, money is not only 'infrastructural' power, it is also 'despotic' power (Mann 1986). Money expands human society's capacity to get things done, as Keynesian economics emphasizes; but this power can be appropriated by particular interests. This is not simply a question, as it is in much Marxist analysis, of the possession and/or control of quantities of money – the power of wealth. Rather, the actual process of the production of money in its different forms is inherently a source of power. For example, modern capitalist money is bank credit-money that is produced on the basis of credit ratings that reinforce and increase existing levels of inequality by imposing differential interest rates. In the most general terms, as Weber, contended, money is a weapon in the struggle for economic existence. Moreover, the dual elements in the nature of money can also be contradictory in that particular interest's advantages may undermine the public benefits. This is a familiar theme in the ultra-liberal economic critique of the government's debt-financed spending that gives it an interest in inducing inflation to reduce the real value of the debt.

As I have intimated, only a very little probing into these well-known observations reveals further longstanding puzzles and paradoxes. Perhaps the greatest paradox is that such a commonplace as money should give rise to so much bewilderment, controversy, and it must be said, error. It is not well understood. Arguably, one of the most brilliant thinkers in economics in the twentieth century struggled unsuccessfully for forty years to finish his 'money book'. I was dismayed to discover that Joseph Schumpeter, according to one of his close Harvard colleagues, was never able to get 'his ideas on money straightened out to his own satisfaction' (quoted in Earley 1994: 342).[3]

Some of the puzzles that lie behind our everyday familiarity with money are revealed by a closer look at the textbook list of 'functions'. Leaving aside economic analysis's misleading implication that the functions explain the existence and nature of money, the presence of multiple attributes in the list raises two questions. Do all the functions have to be performed before 'moneyness' is established? If not, which are the definitive 'functions'? In short, how is money to be uniquely specified? For two thousand years or so, money was identified by the integration of the four functions in the form of coin (and later in notes directly representing coin) – that is, 'money proper' in the late nineteenth century Cambridge economists' lexicon. The value of the coin (or note) was either the embodiment or direct representation of a valuable commodity. This common sense designation of money, as a tangible object, persists and has led to widespread confusions – for example, that electronic money heralds the 'end of

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[3] The puzzle of money is apparent in the frequent use in the literature of the passage from Charles Dickens's *Dombey and Son* in which Paul's ask his father 'What is money?'. Mr Dombey describes some coins to which Paul replies that he understands that, but wants to 'what's money after all'. See Jackson 1995 for this and a wide selection of expressions of similar bewilderment and the range of different conceptions of money.

money' (Cohen 2001). But a closer inspection of the coinage era reveals that matters are not quite so simple. For much of this long period, coins were not stamped with any numerical value – that is, they did not bear any unit of account. This meant that the coin's nominal monetary value and bullion value could and did vary considerably. The sovereign usually assigned the nominal values of coins in accordance with a declared money of account. In medieval Europe, for example, changes in the value of money were mainly the result of the alteration of the nominal unit of account by the king in relation to an 'imaginary' standard of value – 'crying' the coinage up or down, not the alteration of its precious metallic content. Furthermore, many units of money of account – such as the 'pound' of pounds, shillings and pence – were never minted as coin (Einaudi 1953 [1936]). Similarly, guineas continued as a money of account – that is, for pricing goods and debt contracts – for centuries after the coins had ceased to circulate.

'Cash' – portable things that we take to be money – is still used in eighty five per cent of all transactions, but they now amount to only 1 per cent of the total value of monetary transactions. In other words, actual media of exchange are now a relatively insignificant element of most monetary systems; but consciousness of money is still formed to a significant extent by the small-scale transactions. The Euro's introduction in the form of notes and coins is dated from 2002, but the 'money' had existed as a means of setting prices, contracting debts and as a means of payment for over a year before it was embodied in these media of exchange. In short, the question is where is the quality of 'moneyness' located?

There are, in very general terms, two quite different answers to this question. As Schumpeter observed, there are 'only two theories of money which deserve the name … the commodity theory and the claim theory. From their very nature they are incompatible' (Schumpeter quoted in Ellis 1934: 3). Most orthodox economic theory focuses on the concept of money as, essentially, a medium of exchange. This has three meanings that are not always carefully distinguished. Money is either itself an exchangeable commodity (for example, gold coin), or it is a direct symbol of such a commodity (convertible note), or it may be the symbolic representation (*numeraire*) of a commodity standard – cow, barrel of oil, value of 'basket' of commodities.[4] In this view, money is seen as the universal commodity in that it is exchangeable for all others. It should be noted that in this conception 'moneyness' is somewhat tautologically 'exchangeability' – that is, the most 'liquid' commodity. It is at least strongly implied that all other qualities and functions in the conventional list – that is, money of account, means of payment, store of value – follow from, or can be subsumed under, medium of exchange. In sharp contrast, a heterodox 'nominalist' argument maintains that money 'in the full sense of the term can only exist in relation to Money of Account' (Keynes 1930: 3). (Nominalism is closely linked to the notion that money consists in 'claims' and 'credits', not merely tradable objects or their symbols.) In this conception, an abstract money of account is logically anterior to money's forms and functions; it provides all the most important advantages that are attributed to money in general and a medium of exchange in particular. Money of account makes possible prices and debt contracts, which are all that are

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[4] In Walras's 'moneyless' model of the economy the *numeraire* symbolizes an already existing value of an arbitrarily chosen commodity as the benchmark standard of value by which the calculation of the exchange rates between commodities can be made. See the discussion in Ingham, 2004, Chapter 2.

required for extensive multilateral exchange to take place. Money accounting, with or without an actual 'money stuff', is the means by which modern market exchange is made possible – that is, of producing action at both spatial and temporal distance. In this conception money is abstract – but an abstraction from what?

The crux of the matter is whether a uniform value standard of a medium of exchange can be established without the prior existence of an abstract measure (money of account). In the orthodox economic account, a scale for the measurement of value (money of account) arises spontaneously from Adam Smith's primeval 'truck barter and exchange'. The most exchangeable commodity becomes money. These can then be counted to make a measure of value, or money of account. However, this raises a fundamentally important question. Could myriad barter exchanges based on individual subjective preferences produce an agreed scale of values? Can the 'idea' of money – that is, as a measure of value – be derived, as Jevons the late nineteenth century economist famously argued, from individually rational solutions to the 'inconveniences' of barter? How are inter-subjective hierarchies of value produced from subjective preferences? Posed in this way, the question of money becomes one of the fundamental questions of sociological and economic theory.[5]

The most startling paradox is, as I have already pointed out, the fact that the mainstream tradition of modern economics does not attach much theoretical importance to money. Two assumptions in orthodox economics account for this counterintuitive position; both are fundamentally mistaken. First, as we have noted, it is maintained that money is a 'commodity'. Obviously, since the demise of precious metal currencies and standards of value, it is no longer argued that money need consist of a material with an 'intrinsic' exchange value. But for modern economic theory, money is a commodity in the sense that it can be understood, like any other commodity, by means of the orthodox methodology of micro-economics – 'supply and demand', 'marginal utility' and so on.[6] In this conception, although 'cash' is now reduced to insignificance, there can, nevertheless, be a 'stock', or 'quantity' of 'things' that 'circulate' or 'flow' with varying 'velocity'. These metaphors are as misleading as the underlying theory on which they are based. As Schumpeter quipped, the velocity of money may be so great that it finds itself in two places at the same time (Schumpeter 1994 [1954]: 320). Even in this orthodox view, money has to be, at the very least, a rather special commodity. For example, apart from the many other considerations, the production of the supply of money is always subject to rigorous control and is not permitted to respond freely to 'demand'. (The severity of the punishments meted out to counterfeiters is testimony to the rigour.) The 'scarcity' of money is always the result of very carefully constructed social and political arrangements.

The 'neutrality' of money is the second paradoxical tenet held by orthodox economic theory. As we have noted, money is 'neutral' in the 'long run' because it is argued that variation in its 'quantity' can affect only the level of prices and not output and growth in the economy.

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[5] In essence, this is Parsons's problem in *The Structure of Social Action* (Parsons 1937).

[6] As explained in Ingham (2004), Chapter 2, the *analytical* structure of the modern orthodox economic analysis of money is derived fundamentally from the original Aristotelian commodity theory in which money is conceptualized as a 'thing' that acts as a medium of exchange because it possesses value.

Indeed, money is not even accorded an analytical place in some of the most prestigious mathematically sophisticated models of the economy – such as Arrow-Debreu's general equilibrium. In short, mainstream economics cannot provide a satisfactory explanation of money's existence and functions; that is to say, orthodox economics has failed to specify the nature of money.

Moreover, this has not been, as they say, a mere 'academic' problem, as shown by the difficulties following the application of the 'neutral veil' conception and the 'quantity theory' to 'monetarist' policy. In the late 1970s and early 1980s, it was thought that regulating the quantity of money in circulation could control inflation, as it was believed occurred under the gold standard. It failed. In the first place, it should be noted that there was an apparent contradiction in the insistence that something without efficacy (the 'neutral veil') should be rigorously controlled. This was resolved with the time-honoured distinction between the short and long runs. In the long run, equilibrium between the quantities of money and goods would prevail. But short run harmful disequilibria in which the supply of money outran the supply of goods, causing a rise in the price level, could occur and should be eradicated. However, it soon became apparent that monetarists could not reach agreement on what 'money' was and precisely how it got into the economy. Regardless of any other practical or operational problems, controlling a quantity of something that could not be clearly identified was well nigh impossible. Within a short time, measures of money proliferated in those countries whose governments practised 'monetarism' – numerous Ms were progressively introduced from M0 (notes and coins and cheques) to M10 and beyond. But they were all measures of what? Furthermore, it became evident that the imperfectly identified and measured quantities of money did not seem to be as closely related to prices, as the basic 'quantity theory' maintained.

As a practical policy doctrine, 'monetarism' was very short-lived – it scarcely lasted a decade in the US and UK from the late 1970s. However, the underlying theory on which it was based has been retained in mainstream economic theory by attributing the anomalies in the relation between quantities of money and prices to short run, temporary, and analytically ad hoc factors. Consequently, the very same conception of money persists as the theoretical underpinning of a different kind of monetary policy in which quantitative money aggregates are no longer considered to be important. Quantity theory's axiom of long run monetary neutrality in the equilibrium of 'nominal' money and 'real' economic 'variables' remains the ostensible foundation for policy, but no longer gives guidance to practical action (Issing 2001). In short, the relationship between the orthodox conception of money in economic analysis and practical monetary policy is now tenuous to the point of incoherence.

More recently, as I have already hinted, the same orthodox analytical framework has led to the conjecture that advances in communication and information technology will replace money in the operation of economic systems. Even the Deputy Governor of the Bank of England has entertained the idea that such an 'end of money' could render central banks redundant (King 1999). As we shall see, these conjectures are as profoundly mistaken as earlier 'monetarism' and the error stems just as directly from the same confusion over of the nature of money. To identify forms of money and their circulation with the quality of 'moneyness' is to misunderstand the phenomenon. It is a basic 'category error' which has

persisted since the classical Greek commodity theory of metallic coinage. This misidentification of money has produced enormous analytical difficulties and quite bizarre intellectual contortion in orthodox economics' treatment of the so-called 'dematerialization' of money since the late nineteenth century.

It is very significant that the analysis of money was a prominent issue in the *Methodenstreit* that shaped the disciplinary divisions in the social sciences in the late nineteenth and early twentieth centuries. As we have noted, Schumpeter saw at the time that the two opposing sides held two incompatible theories of money. The 'claim' or 'credit' theories of money to which he referred had existed, at least since the fifteenth century, as alternatives to the dominant Aristotelian commodity conception. In picking up the threads a century later, *The Nature of Money* may be seen, in part, as an exercise in the 'intellectual archaeology' of the social sciences. But of course this can only be the beginning; the aim must be to construct an adequate theory of the nature of money as a social phenomenon.

## The Nature of Money: An outline

A theory of money should provide answers to three closely related questions. What is money? Where does it come from, or how does it get into society? How does it get/lose its value? Part I is theoretical and examines the answers given to them by the main traditions in the social sciences. First, the intellectual development in mainstream economics of the notion of money as a commodity and/or a neutral symbol of commodities is examined. Here I elaborate the contention that this understanding of money is deficient because it is quite unable to specify money – that is to say, how money differs from other commodities. It follows that if the question of what money is cannot be answered then the other two – where it comes from and how it gets and loses value – are also likely to be unsatisfactory. Indeed, the question of how money gets into society has been dismissed as irrelevant. As Milton Friedman famously remarked, economics might just as well assume that money is dropped by helicopter and then proceed with the analysis of the effects of different quantities on the price level. The quantity theory of money is deeply infused in both the academic and common sense answers to the third question of how money gets or loses its value. But I shall argue that there are good grounds for challenging the presumption of direct and linear causation from the quantity of money to the level of prices.

Secondly, the strands of the alternative conceptions of money that Schumpeter identified are drawn together in a discussion of money as 'abstract value' and a 'credit', or 'claim'. Attention is drawn to the close relationship of these theories to the state, or 'chartalist' theory of money. Together, they provide the foundations for a non-market theory of money that Keynes referred to as the 'underworld' of monetary analysis. This account aims to make more explicit what I take to be the inherently sociological nature of these 'nominalist', 'credit', and 'state' theories of money.

An analysis of money in classical and modern sociological theory is intended to show the deleterious effects of the narrowly economic conception of money (both neoclassical and Marxist) on modern sociology. A short exegesis of Simmel and Weber on money focuses on the hitherto neglected parts of their work.

These extended analytical critiques of the major tradition form the basis for a sketch of the ‘fundamentals of a theory of money’. This is organised in relation to the three basic questions referred to above and attempts to reclaim the study of money for sociology. The aim is not simply to perpetuate the existing disciplinary divisions, nor to advocate that a ‘sociological imperialism’ replaces economics’ hegemony in these matters. I construe ‘sociological’ in what is today in some circles a rather old-fashioned Weberian manner. As Collins has persuasively argued, the social/cultural, economic, and political ‘realms’ of reality are each, at one and the same time, amenable to ‘social/cultural’, ‘economic’, and above all ‘political’ analysis (Collins 1986). Moreover, by a ‘sociology of money’ I intend more than the self-evident assertion that money is produced socially, is accepted by convention, is underpinned by trust, has definite social and cultural consequences and so on. Rather, I argue that money is itself a social relation; that is to say, money is ‘claim’ or ‘credit’ that is constituted by social relations that exist independently of the production and exchange of commodities. Regardless of any form it might take, money is essentially a provisional ‘promise’ to pay whose ‘moneyness’, as an ‘institutional fact’ (see Searle 1995), is assigned by a description conferred by an abstract money of account.

Money is a social relation of credit and debt denominated in a money of account. In the most basic sense, the possessor of money is owed goods. But money also represents a claim or credit against the issuer – monarch, state, bank and so on. Money has to be ‘issued’. And something can only be issued as money, if it is capable of cancelling any debt incurred by the issuer. Orthodox economics works from different premises and typically argues that if an individual in a barter exchange does not have the pig to exchange for the two ducks, it would be possible to issue a document of indebtedness for one pig. This could be held by the co-trader and later handed back for cancellation on receipt of a real pig. Is the ‘pig IOU’ money? Contrary to orthodox economic theory, I argue that it is not and, moreover, that such hypothetical barter could not produce money. Rather, for money to be the most exchangeable commodity it must first be constituted as transferable debt based on an abstract money of account. More concretely, as Knapp argued, a state issues money, as payment for goods and services, in the form of a ‘promise’ to accept it in payment of taxes. A bank issues notes, or allows a cheque to be drawn against it as a claim, which it ‘promises’ to accept in payment by its debtor. Money cannot be said to exist without the simultaneous existence of a debt that it can discharge. But note that this is not a particular debt, but rather any debt within a given monetary space.

Money may appear to get its ability to buy commodities from its equivalence with them, as implied by the idea of the purchasing power of money as measured by a price index. But this misses out a crucial step: the origin of the power of money in the promise between the issuer and the user of money – that is, in the issuer’s self-declared debt, as outlined above. The ‘claim’ or ‘credit’ must also be enforceable. Monetary societies are held together by networks of credit/debt relations that are underpinned and constituted by sovereignty (Aglietta and Orlean 1998). Money is a form of sovereignty and as such it cannot be understood without reference to an authority.

This framework for an alternative sociological analysis of money’s properties and logical conditions of existence informs the historical and empirical analysis in Part II. Having

rejected orthodox economics' conjectural explanations of money's historical origins, an alternative is presented in an analysis of the historical origins of money and its pre-capitalist forms. First, the origin of money is not sought by looking for the early use of tradable commodities that might have developed into proto-currencies, but rather, following the great Cambridge numismatist Philip Grierson, to look behind forms of money for the very idea of a measure of value (money of account). This again takes up and builds on the nineteenth century Historical School's legacy and adds from more recent scholarship. A discussion of early coinage and its development to sophistication in the Roman Empire has two aims. The first is to cast doubt on the almost universally accepted axiom in orthodox economic analysis that the quantity of precious metal in coins was directly related to the price of commodities – that is to say, for example, that debasing the coinage caused inflation. The second theme resurrects another contentious issue from the *Methodenstreit* – the question of whether the ancient world was 'capitalist'. At the time, the economic 'theorists' argued that their explanatory models applied universally across time and space; 'economic man' and his practices were to be found throughout history. The Historical School, including Weber, argued otherwise and I elaborate their case with a more 'monetary' interpretation of pre-capitalist history.

The development of capitalist money is given a detailed treatment, arguing that one of capitalism's distinctive structural characteristics is to be found in its social relations for the production of 'credit-money'. Capitalism is founded on the social mechanism whereby private debts are 'monetized' in the banking system. Here the act of lending creates deposits of money. This did not occur in the so-called banks of the ancient and classical worlds. Aside from its extended application of the theoretical scheme, this discussion is also intended to be a correction of the standard sociological account of the rise of capitalism. Here there is an overwhelming tendency to adhere to a loosely Marxist understanding in terms of the relations of production combined with a cultural element taken from *The Protestant Ethic*. One-sided emphasis on this work has led to a quite grotesque distortion of Weber's work (Ingham 2003). In the construction of an 'ideal type' of the 'social relations of production' of capitalist credit-money, I attempt to draw out the implicit sociology in some of the more heterodox economic accounts of the empirical 'stylised facts' involved in credit-money creation. Attention is drawn to the 'performative' role of orthodox economic theory in the social production of the 'fiction of an invariant standard' (Searle 1995, Mirowski 1991).

This is followed by three case studies of types of 'monetary disorder'. Economic orthodoxy has difficulty in accounting for monetary 'disorder' because of the commitment to the notions of money's neutrality and long run equilibrium of money and goods as a 'normal' state of affairs. If however, money is seen as the a social relation that expresses a balance of social and political forces and, further, there is no presumption that such a balance entails a normal equilibrium, then, monetary 'disorder' and instability are to be expected. The rise and fall of the 'great inflation' of the 1970s, the protracted Japanese deflation of the 1990s, and Argentina's chronic inability to produce viable money are examined.

Three further empirical examples of currently topical issues are used to illustrate the approach. The first is a critique of the many recent conjectures that the impact of technical change on the evolution of forms of money – e-money, etc – might bring about the 'end of

money' and, consequently, central banks. These are the result of the fundamental and widespread category error by which 'moneyness' is identified by a particular 'form' of money. The second looks at the claims that local barter schemes might significantly encroach or even supersede formal money. Thirdly, the different analytical approaches to the eurozone single currency experiment are examined. A short conclusion attempts to tie the argument and analysis together and points to the unresolved questions.

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