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## The Role of Money in Capitalism

Money plays the primordial role in the genesis and subsistence of capitalism. However, in theoretical economics, money is often relegated to a secondary role. Dobb (1947, 5–7) distinguishes three different schools of thought on capitalism—the Geist school, the monetary school, and the Marxian school. The Geist school explains capitalism in terms of the substantive rationality of market exchange. The Marxian school explains capitalism in terms of class and production relations (only). The monetary school (at least implicitly) starts with money as a social relation, which in turn *makes possible* both market exchange and the more extensive set of relationships known as capitalism.

In the classical and neoclassical tradition, capitalism is often identified simply with the market (Heilbroner and Milberg 1995). The underlying political and social conditions are ignored. Since the market is treated as a barter-like place of exchange, the role of money becomes insignificant. The different explanations of capitalism stem from two competing theories of money, which can be traced back to the Greek philosophers Plato and Aristotle.<sup>1</sup> One

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theory is called the “catallactic” theory, from a Greek word for “to exchange” (von Mises 1981, 462; Schumpeter 1994, 63). It holds that money is primarily a medium of exchange evolved spontaneously from barter for the purpose of minimizing transaction costs (Menger 1892). Historically, various precious metals were chosen as media of exchange because they were the most salable commodities. Hence, the catallactic theory is often referred to as “metallist” theory.<sup>2</sup> Furthermore, the value of metallic money is supposedly based on the intrinsic content of the metal. Metallic money is therefore both money and a commodity at the same time. The other school may be called “chartalist” from an adjective derived by Knapp from the Latin *charta* (Goodhart 1998; Wray 1998). Schumpeter similarly refers to the “credit or claim theory” (Ingham 2004, 6). Chartalism emphasizes the means of payment and unit of account functions of money rather than the medium of exchange. Money is “a debt-relation or a promise to pay that exists between human beings” (Bell 2001). Alternatively, money is a social relation (Ingham 1996; 2000; 2004). General acceptability by the public is the necessary condition of money. In particular, money is that which is accepted as taxes or other payments by the state (Innes 1914, 161; Knapp 1924, 95; Lerner 1947, 313; Wray 1998, 4). The value of money is based on social arrangements rather than the intrinsic content of the “stuff” of which money is made.

The two different schools of thought lead to two fundamentally different approaches to economics—“real analysis” and “monetary analysis” described by Schumpeter (1994). Keynes (1973) also distinguishes a real-exchange economy from a monetary economy. For Keynes, a monetary economy is that in “which money plays a part of its own and affects motives and decisions and is . . . one of the operative factors . . . the course of events cannot be predicted, either in the long period or in the short, without a knowledge of the behaviour of money . . . [e]veryone would . . . agree that it is in a monetary economy in my sense . . . that we actually live” (1973, 408–411).

There are also different views of the relationships between money, the market, and capitalism. The catallactic school views market as an “institution-free” aggregate of barter-like exchanges

among agents. Money evolved spontaneously from idealized barter to reduce transaction costs and increase the efficiency of exchange (Menger 1892). This theory is obviously not defensible on the grounds of historical verisimilitude (Dowd 2000). With current developments in information and communications technology, a contemporary nuance is that money *per se* might actually be dispensed with (King 1999, 25–27; Woodford 1998). There would be a “virtual” barter economy, essentially making the Walrasian ideal an empirical reality at long last. This is clearly a *chimera* from the alternative point of view. For the chartalist school, money is a prerequisite for the market economy and capitalism. Price is not the same as a barter exchange ratio. Price transforms myriad subjective and unstable preferences into an intersubjective and stable scale of values, and is always expressed in pecuniary units. Money “is logically anterior and historically prior to market exchange” (Ingham 2004, 25).

### **Money, Private Property, and Business Activity**

It is always possible to define as “economic” any activity oriented toward gaining the means of subsistence, including a purely self-sufficient individual as in the overused “Crusoe” example. It is perhaps something of this kind that led neoclassical economists to believe that it was possible to construct “a science that ignored money” (Dostaler and Maris 2000). However, the self-sufficient producer is not a viable basis on which to construct a theory of social relations. More seriously, writers such as Heinsohn and Steiger (2000) and Trigilia (2002) identify three generic types of socioeconomic organizations, the customary or tribal society, the command or feudal society, and the property-based society (Heinsohn and Steiger 2000, 68; Trigilia 2002, 18).

In the customary society, reciprocity is the main principle regulating production and distribution. There is no independent legal system to enforce the “rules,” which depend upon informal customs and tradition. Gift exchange is the dominant type of trade. In a command society, the ruling class, the state, the aristocracy, or the “party” (in twentieth-century state socialism) enforce the prin-

ciple of redistribution to regulate production, consumption, and accumulation. The ruling class extracts planned levies (usually in kind) from a class of serfs. In return, the serfs receive a portion of the central storage, but again no independent institutions exist to protect the serfs. Administrated trade is the dominant type of trade. In the property-based society, the market regulates production, distribution, and accumulation, and there are independent institutions to enforce property rights and contracts. Almost invariably, market trades are conducted in monetary terms.

Institutions are “durable systems of established and embedded social rules that structure social interactions” (Hodgson 2002, 113). Examples are language, money, law, weights, and measures. The three socioeconomic systems can be treated as institutions. Reciprocity, redistribution, and the market are the constitutive rules of the three systems (Searle 1999, 123). Furthermore, institutions build upon institutions (Searle 1999, 128–131). For example, law as an institution is built upon language; hence the institution of language is logically anterior to the institution of law. An important issue here is the relation between the institutions of money and property.

In the property theory of money (De Soto 2000; Heinsohn and Steiger 2000), the fundamental idea is to distinguish possessional rights and property rights. The former are “restricted to the physical use of resources” (Heinsohn and Steiger 2000, 68), whereas the latter “encompass the *non-physical* uses of encumbering the property for backing money and collateralizing credit” (Heinsohn and Steiger 2000, 70). The intuitive idea is that property rights enable the use of resources as collateral. Collateral enables entrepreneurs to borrow money, and hence expand their capital. De Soto (2000, 39–68) argues that a formal (legal) property system is therefore the key to the development of capitalism. Money is defined in terms of debt, but collaterals are that which make debt possible. Therefore money is “an anonymized claim to property” (Heinsohn and Steiger 2000, 85). On this view, the institution of money is built upon the institution of property, analogous to the logical relation between language and law.

The property theory recognizes both that money of account is the primary function of money, and that money is essentially a

credit relation, but there are two faulty arguments in the theory. First, without the concept of a unit (money) of account, one cannot express any kind of credit relation. The very concept of property, at least the one interesting for economists, must have some definite monetary value. This monetary quantification of property is the reason *why* it can be used as collateral. Hence, the concept of “property,” unlike the primitive concept of “possessiveness,” presupposes a money of account. Second, not all loan contracts are based on collateral (Schumpeter 2002). Heinsohn and Steiger (2000, 83) recognize this, but argue that even without specific collateral, creditors provide loans on the basis of the imputed and unspecific collateral owned by debtors. At the operational level of the practice of bank lending, this is incorrect. A loan is based either on the expected cash flows yielded by business activity or on pledged collateral.<sup>3</sup> Property theorists erroneously reduce the former to the latter. According to Minsky, “in structuring a loan . . . based on prospective cash flows, the loan officers may insist on a margin of safety in the form of pledged collateral. But this would not be the primary consideration: cash-flow-oriented loans are made on the basis of the prospective value added of . . . business endeavors” (1986, 233). Further, creditworthiness is essentially a social relation. Loan decisions are made by evaluating the future ability and willingness of the debtor to fulfill the commitment. This evaluation is a subjective judgment based on information obtained, and trustworthiness of the applicant (a social relation), under the guidance of the general criteria of the bank. In such a loan, asset collateral is only an additional safety margin, and is not the fundamental reason for a cash-oriented loan. In summary, as Weber puts the point, “(f)rom the evolutionary standpoint, money is the father of private property” (and not the other way around) (2003, 236).

It was, in fact, commonplace of the classical economic sociology literature (Weber 1978; 2003) that a money of account is the prerequisite for rational accounting, the publication of price lists and financial results, and the calculation of profit and loss generally. This view was also shared by Keynes: “(m)oney-of-account . . . is the primary concept of a theory of money” (1930, 3). Ingham explains: “money of account makes possible prices and

debt contracts . . . money accounting, with or without an actual ‘money stuff,’ is the means by which modern market exchange is made possible . . . producing action at both spatial and temporal distance” (2004, 21–23). For business operations to be conceivable at all, there must be some mechanism whereby payments actually can be made, and profits realized in some socially objective form, not reducible to private utilities.

### Money as a Unit of Account and Means of Payment

Dow and Smithin (1999), drawing on Hicks (1989), identify an important element of a monetary economy as the existence on a unique ultimate or final monetary asset in which the twin functions of the unit of account and means of (final) payment are combined.<sup>4</sup> Contrary to suggestions made in the “new monetary economics” (NME) literature of the 1980s (Fama 1980), the two functions are inseparable. This asset corresponds to what is known as “base money” in mainstream literature or *valuata* money in the chartalist or state theory literature (Knapp 1924, 102–105; Wray 1998, 26). A means of payment is not the same thing as the medium of exchange. Almost anything can fulfill the latter role, depending on the tacit agreement of the parties to any transaction. The notion of a means of payment draws attention to the inevitably hierarchal element in monetary systems as emphasized by contemporary “neo-chartalists” (Bell 2001).

A unit of account is required because the representative business transaction has a temporal dimension (Hicks 1989). It is not a simple “spot” payment of goods for money or money for goods. There are three temporally separate stages: making a contract or bargain, delivery of goods or services, and delivery of means of payment. After the initial contract is made, two debts are created.<sup>5</sup> On one side, there is a debt in money, on the other, a debt in goods and services. Money plays two roles, it fixes the term of the original contract, and it is the means by which payment is effected. The unit of account function incorporates the “standard of deferred payment.” It provides a stable measure enabling a transaction to comprise various temporal stages. This is more than simply solv-

ing the problem of the double coincidence of wants. It makes dynamic business transactions possible. Further, it is not practical to have a means of payment different from the unit of account. In such a case, one has to agree on the “exchange rate” at the time of entering the contract. This will add unnecessary uncertainty and transaction costs, which are avoided if the parties use units of the means of payment as the standard.

### **Money as the Necessary Condition for Substantive and Formal Rationality in Capitalism**

Money plays pivotal roles in both the substantive and formal aspects of capitalism. Formal rationality designates “the extent of quantitative calculation or accounting which is technically possible and . . . actually applied” (Weber 1978, 85). Substantive rationality designates “some criterion (past, present, or potential) of ultimate values . . . regardless of the nature of these ends.” Hence, the substantive rationality of capitalism must be the normative end, whereas its formal rationality is the method by which the end is achieved. In volume 1 of *Capital*, Marx presents a “monetary theory of production”:

The expansion of [exchange] value, which is the objective basis or mainspring of the circulation  $M-C-M'$ , becomes his subjective aim, and it is only in so far as the appropriation of ever more and more wealth in the abstract becomes the sole motive of his operations, that he functions as a capitalist . . . the restless never-ending process of profit-making alone is what he aims at. (1977, 449)

This is a key conception, even if Marx’s own understanding of money *per se* remains resolutely that of a commodity (Ingham 2004; Smithin 2000). This relentless drive for profit is the substantive rationality of capitalism. Certain opponents of capitalism might object to the term *rationality* here. After all, there is a school of thought that labels the acquisitive drive as “irrational” from the psychological point of view, based on Freudian motives and so on (Dostaler and Maris 2000). Evidently, this is not the sense in which the term is used here. Moreover, this type of argument can be something of a double-edged sword. A distaste for the mores of

capitalism may be thought to have psychological roots also, and other social systems may give reign to other types of psychological proclivity. Keynes said “it is better for a man to tyrannize over his bank balance than over his fellow citizens” (quoted in Dostaler and Maris 2000, 247–248). It is also important to realize that neo-classical utility maximization is categorically different from this profit-making value. The former may be defined as “whatever that an agent wants or desires,” but, again, there is no value system assumed here. The important point is that substantive rationality is always developed historically and concretely in a particular time and space. It can and does originate from other (noneconomic) values. This is the subject of economic sociology as defined by Schumpeter (1994, 21).

Based on the above discussion, capitalism must be considered as more than the market. A market is simply an actual or virtual location where traders interact, and exchange goods, services, and assets. It lacks the formal rationality of capitalism—capital accounting—as well as the substantive rationality—the drive for profit. Moreover, exchange in-kind or barter is qualitatively different from market exchange *par excellence*. This view is a direct antithesis to the neoclassical approach, which considers exchange in-kind as exchange *par excellence*. In the monetary approach, a market exchange *par excellence* is always an exchange in monetary terms (Weber 1978, 83). Rational accounting is the “method of enterprise,” which “determines its income yielding power by calculation according to the methods of modern bookkeeping and the striking of a balance” (Weber 2003, 275). An enterprise is able to set financial goals, to calculate profit or loss, evaluate financial performance, and perform control functions. It is obvious that capital accounting must be conducted in monetary terms. Hence, a money of account is the necessary condition of rational capital accounting.<sup>6</sup>

### **The Importance of “Capitalist Credit Money”**

Ingham (2000; 2004) stresses that another key element of the role that money plays in capitalism is some sort of mechanism for credit



creation, what he calls “capitalist credit money.” This issue has also been emphasized in post-Keynesian theories of endogenous money (Kaldor 1986; Lavoie 1992; Moore 1988; Wray 1990), in the theory of the monetary circuit (Graziani 2003; Parguez 1996; Parguez and Seccareccia 2000; Rochon 1999), and by Schumpeter (2002) in his theory of entrepreneurship.

According to Ingham, “this creation of credit-money by lending in the form of issued notes and bills, which exist independently of any particular level of incoming deposits, is the critical development . . . the *differentia specifica* of capitalism” (2004, 115). What occurs, specifically, is that, first, private debts in various forms—such as demand deposits (checking deposits), time deposits, credit cards, and promissory notes—are created by private financial institutions. These debts are created in a two-sided balance sheet operation. Second, some of these private debts become transferable and anonymous, and then can be used for payment of good and services, and become private money. Third, via the relationship with the state central bank, some of these private monies become public money legitimized and guaranteed by the monetary authority.

As noted, there is a hierarchy of money based on the degree of acceptability. The degree of acceptability is mainly a function of the creditworthiness of the original issuer. Money “is always credit because its value rests upon the recipient’s confidence that he will be able to acquire a certain quantity of goods in exchange” (Simmel 2004, 179). At the top of the hierarchy is a specific form of chartal money, state money, representing the ultimate means of payment. According to Knapp, “[i]n the monetary system of state there must be one kind of money which is definitive, as opposed to provisional (convertible) money” (1924, 102). State money is money *par excellence* because it is the unit of account and the final means of payment, and both Knapp and modern neo-chartalists focus on the coercive power of a state in collecting taxes to explain why state money is accepted.

However, throughout the history of capitalism and *a fortiori* in today’s economy, bank credit money is, by far, quantitatively the dominant money (Hicks 1989). The banks can create money (1) be-

cause of their relationship with the issuer of definitive money (and because in fact bank money is routinely also accepted in payments of taxes): also (2) because, via fractional reserve banking, they can lend more than is deposited with them. Banks are not simply financial intermediaries, which transmit household saving to business investment. Credit creation is, in fact, the actual business of banking. In the scheme of things in capitalism, moreover, credit creation explains, first, how is it possible that entrepreneurs can acquire the resources to set production in train, and, second, how it is possible to realize profits in monetary terms. For the latter, what is relevant is credit granted to other entrepreneurs, consumers, and the state (in the guise of the ministry of finance), which creates the demand for the products of the producers, and enables the realization of a surplus (an excess of selling price over costs including interest costs) in monetary terms (Seccareccia 1996). From this point of view, money, rather the whole set of social relationships described under that rubric, is the necessary condition of entrepreneurship. The circuit school, horizontalists and others treat money as a flow variable rather than a stock (Graziani 2003). Bank finance for investment is not related to previous saving. Saving is not a determinant of investment. Graziani states the most significant insight of the circuit school:

the possibility that firms can carry out their production plans is not in the hands of savers and their willingness to supply an adequate amount of saving, but rather in the hands of the banks and their willingness to supply the required liquidity. (2003, 151)

The creation of bank credit money is the fundamental source that supports the dynamic development of capitalism. If this is not available, entrepreneurs have no means to acquire capital. Schumpeter asks the pertinent question: “[w]hence come the sums needed to purchase the means of production necessary for the new combinations if the individual [entrepreneur] concerned does not happen to have them?” (2002, 71–72).

The need for an elastic credit system, combined with the need for a centralized authoritative base money is conducive exactly to the type of situation existing with contemporary central banks, in

which a policy-determined interest rate (such as an overnight rate on settlement balances in the clearinghouse) is the basic regulatory mechanism. This is a point long stressed by post-Keynesian horizontalists, for example. However, although the contemporary discussion of “interest-rate operating procedures” is portrayed as something new by the economists of the “new consensus,” in truth something similar has usually been the case more or less from the start of capitalism (cf., the nineteenth-century doctrine of bank rate). The failed attempts (inspired by monetarism) to actually regulate the quantity of money in the 1970s and 1980s were, in fact, a historical anomaly.

The key for economic growth in a capitalist society is the need for deficit financing by at least one sector of the macroeconomy. It is not true that this is “the creation of new purchasing power out of nothing” (Schumpeter 2002, 73), as is often mistakenly stated. The social relationships described above are as “real” as any other social institution. This deficit financing can originate from the “animal spirits” of other entrepreneurs, or from consumer debt. However, historically and practically, the source has often been the government budget deficit. This is why austerity economic policies such as the egregiously misnamed “Growth and Stability Pact” in the European Union, and the advice given by international organizations such as the International Monetary Fund in times of financial crisis, so often appear misguided and even dangerous (Stiglitz 2002, 109–110). Metaphorically speaking, by shrinking the elastic production of credit money, the “life force” of capitalism is drained from the body. An elastic supply of credit, and deficit financing, is actually a necessary condition for any economic expansion in the real sector. From this point of view, the monetary authority must make sure that the real interest rate (the price of credit money) is low enough to induce the desired expansion of the money supply. Whereas “excessive” creation of money may be undesirable because it will lead to bubbles, the inadequate creation of money is even more dangerous because it will lead to recession or depression. Lerner states: “[d]epression occurs only if the amount of money spent is insufficient . . . inflation occurs only if the amount of money spent is excessive” (1947, 314).

### **Preserving the Value of Accumulated Financial Capital**

The final element of the role of money in capitalism has to do with the rewards, incentive, and prestige system. How does one accumulate wealth and continue to enjoy the profits, wages, and so on, made in the past? The answer is primarily by accumulating money and other financial resources denominated in monetary terms. Again, money has a temporal dimension. It makes the link between work in the past and reward in the future. Without money, all reward for work or entrepreneurship must be received “here and now” on the spot. Hence, money provides the freedom to choose when, where, and how to be rewarded. In neoclassical language, the reward is maximized. Further, this reward can be transferred to an heir even after one has died. In a symbolic sense, the reward for one’s effort can outlive the individual.

Accumulation in financial terms under capitalism, as a route to power and influence, contrasts sharply with other methods of acquiring power/prestige under other social systems, such as accumulating land under feudalism. In capitalism, in fact, all physical property is only useful in this respect insofar as it is marketable for money. As pointed out by Seccareccia (1997, 126–129), the monetary mechanism is a means of overcoming the forces of entropy, which would otherwise degrade physical structure. This requires a social contract that possession of money is a valid claim on the currently produced goods and services of the society. According to Simmel, “money is only a claim on society . . . money appears, so to speak, as a bill of exchange from which the name of the drawee is lacking” (quoted in Ingham, 2004, 38). For this social contract to work, it is required, of course, that money retain its value over time, and (what is often forgotten) that the social structure remains sufficiently intact such that goods and services (on which a claim may be exercised) will indeed be produced in the future.

Evidently, if the availability of credit for new entrepreneurs requires that real interest rates should be as low as possible, this aspect of the monetary system militates in the opposite direction. A particular problem would exist if real interest rates became nega-

tive, as then the real value of financial resources would be eroding over time.

### **The Essence of Economic Conflict**

In the *Tract on Monetary Reform*, Keynes (2000, 5) distinguished three economic classes in capitalism. They are “the investing class” (financiers/rentiers), “the business class” (entrepreneurs), and “the earning class” (workers). These classes may overlap. The “same individual may earn, deal, and invest” (Keynes 2000, 5). However, realistically, an individual predominately belongs to one of the three classes. More importantly, the distinction is useful because it focuses clearly on the incentives to engage in each type of economic activity. The workers sell their time and work for a salary or wage. They can be employees proper or contract workers. They “risk” their time, and sometimes their physical strength, rather than their own money. The investing class invests money for an “economic rent” in the form of interest or dividends. What distinguishes them from entrepreneurs is that they do not actually operate their own businesses. “Banks” belong to this class, and are a crucial source of financing. The business class actually operates their businesses. Entrepreneurs are examples. The “idealized” entrepreneur acquires all necessary financing from the investing class. The business class is the group that actually conducts the M-C-M' flow. In addition to the three classes, government is a main economic actor, and a mediator/intermediary between the three groups.

Keynes's argument was that inflation, as such, need not be of much concern either to the business class or labor. In times of rising prices, labor has little difficulty in securing wage increases to match, whereas the entrepreneurs may actually gain as the value of stocks of finished goods and work-in-process appreciates on their hands. The financial interests, however, whose wealth is denominated in terms of money, do have a strong aversion to inflation. Nonetheless, a crucial point was glossed over in this discussion, and continues to be in the contemporary debate. Beyond the conventional focus on inflation *per se*, on a closer look it becomes clear that the underlying cause of the conflict is actually the real

interest rates changes that must occur as part of any attempt to change inflation by monetary means. In the case of the business class, for example, for there to be any genuine profiteering for inflation, the real rate of interest must fall. Otherwise, in a continuing production process, refinancing the next period's production at the new higher prices would eliminate the nominal profits on the sale of today's goods. In the case of the earner, Keynes's argument was that labor can cope reasonably well with inflation. Nonetheless, labor does have a definite interest in the real interest rate changes that may be necessary to change inflation. High real interest rates, for example, will tend to cause unemployment to rise and real wages to fall. Even for financiers, it must be true that, in any reasonably sophisticated financial system, the real problem is not so much inflation itself, as the extent to which financial capital is protected from inflation, or its real return. In a high-inflation environment, a genuine problem from the rentier point of view would be if real interest rates are negative, so that the required inflation protection is not present. Therefore, although policy objectives tend to be articulated in terms of targets for the inflation rate, the actual point of contention is the real rate of return on financial instruments.

Since the monetary authority controls interest rates by setting the short-term policy rate, and as it is, to a high degree, a politically autonomous body, it plays the pivotal role in maintaining the delicate balance of power among the three economic classes and the government itself. This is an art rather than a science. In general, a low real interest rate is the most conducive for a dynamic capitalism, to ensure an elastic supply of credit money. However, *negative* real interest rates would clearly militate against the investing class, and the ultimate reward/incentive system of the society. Smithin (1996) argues that "low but still positive" real interest rates would represent the most sensible compromise.

### **Conclusion: Money and the State**

It has been shown above that if capitalism is to exist, there must be an ultimate or basic asset with the requisite degree of "moneyness." Furthermore, there is (what conventional economics would call) a

distinct “public good” element to this (Dow and Smithin 1999). There is inevitably a high degree of centralization in the monetary system, and obviously the state is well placed to provide this. The chartalist argument, that state money is base money because of acceptability in the payment of taxes, is obviously a powerful one. This does not mean that a “private” monetary authority is logically impossible. There have been historical examples (Goodhart 1998; Ingham 2004) and, in modern conditions, if the state did abdicate its monetary role (as contemporary “free bankers” advocate), presumably some powerful private financial institution would have to fill the void (Dow and Smithin 1999; Goodhart 1998). What the discussion does achieve is to drive home the argument that the monetary order is socially constructed, rather than deriving automatically from the market. Essentially, in the case discussed, there would have to be a social consensus that the liabilities of the powerful institution “count as” money. It is easy to see, therefore, why historically/empirically the state with its coercive powers has been in the driver’s seat. This explains why the reserve assets in the clearinghouse are typically the liabilities of state central banks, and why the interest rate on these reserve assets is the base interest rate.

Note that the idea of an “authoritative” money as the prerequisite of capitalism, makes nonsense of the type of economic discourse (typical of the textbooks) that postulates some kind of inherent opposition between government and the market, and criticizes various examples of “government intervention.” This type of argument lacks coherence if one is needed for the other to exist. Of course, it remains true that particular state policies may well be inimical to capitalism (100 percent tax rate, for example), and there must be continued discussion of what the optimal policies might be. Nonetheless, an authoritative center of some kind must exist if there is *to be* capitalism, and the idea of a freestanding market system without money, law, property rights, and so on, is evidently a myth.

## Notes

1. Schumpeter extrapolates: “it must be observed that his [Plato’s] canons of monetary policy—his hostility to the use of gold and silver . . . or his idea of



a domestic currency that would be useless abroad . . . do agree with the logical consequence of a theory according to which the value of money is . . . independent of the stuff it is made of" (1994, 54). Whereas Plato left only a few clues on his views on money, Aristotle is a well-known metallist (Schumpeter 1994, 63–64).

2. The term “catallactic” was popularized by von Mises (1981). We prefer this to the more picturesque “metallist” for two reasons. First, today fiat money is not metal-based. Although this school still dominates the mainstream, it is no longer possible to argue that the value of money is based on the material in which money is embedded. Second, the Walrasian treatment of money as a worthless information carrier and *numeraire* must also belong to this school because of their core tenet that the *diffentia specifica* of money is the medium of exchange function (Bell 2001).

3. Only speculative loans are based mainly on the expected future value of the collateral. Minsky calls such loans “Ponzi-type” loans. In other words, the Ponzi loan is not the norm but a risky exception. Fundamentally, a bank is not just a passive financial intermediary but a profit-seeding enterprise.

4. In neoclassical economics, the term *unit of account* is used in emphasizing the medium of exchange function. In Keynesian economics, “money of account” is used in emphasizing the means of payment function. In this paper, both terms are used interchangeably in the sense of Keynes.

5. As Marx puts it, “in other words, a sale is a purchase C-M is also M-C” (1977, 444).

6. Wesley C. Mitchell, whose monetary theory of business cycles foreshadows that of Minsky, puts the same point succinctly: “[b]y giving economic activity an immediate objective aim, and by providing a common denominator in terms of which all costs and . . . gains can be adequately expressed for business purposes, the use of money provided a technically rational scheme for guiding economic effort” (1944, 64).

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