

**The Credit Money and  
State Money Approaches**

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# THE CREDIT MONEY AND STATE MONEY APPROACHES

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The primary purpose of this article will be to draw out explicitly the link between the state money and credit money approaches, after first discussing the nature of money via historical and sociological analysis.<sup>1</sup>

## THE IMPORTANCE OF THE HISTORICAL RECORD

Many analyses of money begin with some story about the evolution of money from sea shells, to precious metals, to bank deposits and finally to modern “fiat” money. Why do economists feel a need to turn to history? I suppose it is primarily to shed light on the nature of money, to focus attention on those characteristics of money that they believe to be essential. The barter story highlights the medium of exchange and store of value functions of money. A natural propensity to truck and barter is taken for granted. Attention is diverted away from social behavior and toward individual utility calculation. Social power and economic classes are purged from the analysis, while “the market” is exalted. Fundamental change, if it exists at all, is transactions-cost reducing except where government interferes, creating inefficiencies.

By contrast, the credit approach locates the origin of money in credit and debt relations, while markets are secondary or even non-existent. The analysis is social—at the very least it requires a bilateral relation between debtor and creditor. The unit of account is emphasized as the numeraire in which credits and debts are measured. The store of value function could also be important, for one stores wealth in the form of others’ debts. On the other hand, the medium of exchange function is de-emphasized; indeed, one could imagine credits and debts without a functioning market.

Most of those adopting a credit approach would want to push social analysis much farther. Innes (1913, 1914, 1932) suggests that we can locate the origins of credit and debt relations in the elaborate system of tribal wergild designed to prevent blood feuds. Wergild fines were paid directly to victims and their families, and were established and levied by public assemblies. A long list fines for each possible transgression was developed, and a designated “rememberer” would be responsible for passing it down to the next generation. Note that each fine was levied in terms of a particular good that was both useful to the victim and more-or-less easily obtained by the perpetrator.

As Hudson (2004) reports, the words for debt in most languages are synonymous with sin or guilt, reflecting these early reparations for personal injury. Originally, until one paid the wergild fine, one was “liable”, or “indebted” to the victim. We still think of a traffic fine as an “obligation” to pay, and speak of the criminal’s debt to society. Hudson also

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<sup>1</sup> This paper presents a summary of Chapter 8 of my book, L.R. Wray (ed), *Credit and State Theories of Money: the contributions of A. Mitchell Innes*, Cheltenham, Edward Elgar, 79-98. It was presented April 1, 2004 at “The Nature, Origins, and Role of Money” conference sponsored at UMKC by the Center for Full Employment and Price Stability.

makes it clear that the words for money, fines, tribute, tithes, debts, manprice, sin, and, finally, taxes are so often linked as to eliminate the possibility of coincidence. It is almost certain that wergild fines were gradually converted to payments made to an authority. This could not occur in an egalitarian tribal society, but had to await the rise of some sort of ruling class. As Henry (2004) argues for the case of Egypt, the earliest ruling classes were probably religious officials, who demanded tithes (ostensibly, to keep the gods happy). Alternatively, conquerors require payments of tribute by a subject population. Tithes and tribute thus came to replace wergild fines, and fines for “transgressions against society”, paid to the rightful ruler, could be levied for almost any conceivable activity.

Eventually, taxes would replace most fees, fines and tribute. These could be self-imposed as democracy swept away the divine right of kings to receive such payments. “Voluntarily-imposed” taxes proved superior to payments based on naked power or religious fraud because of the social nature of the decision to impose them “for the public good”. The notion that such taxes “pay for” provision of “public goods” like defense or infrastructure added another layer of justification, as did the occasionally successful attempt to convert taxes from a “liability” to a “responsibility”. In any case, with the development of “civil” society and reliance mostly on payment of taxes rather than fines, tithes, or tribute, the origin of such payments in the wergild tradition have been wiped clean from the collective consciousness.

The key innovation, then, lay in the transformation of what had been the transgressor’s debt to the victim to a universal “debt” or tax obligation imposed by and payable to the authority. The next step was the recognition that the obligations could be standardized in terms of a unit of account. At first, the authority might have levied a variety of fines (and tributes, tithes, and taxes), in terms of goods or services to be delivered, one for each sort of transgression. When all payments are made to the single authority, however, this wergild sort of system becomes cumbersome. Unless well-developed markets exist, those with liabilities denominated in specific goods or services could find it difficult to make such payments. Or, the authority could find itself blessed with an overabundance of one type of good while short of others.

Denominating payments in a unit of account would simplify matters—but would require a central authority. As Grierson (1977, 1979) remarked, development of a unit of account would be conceptually difficult. (See also Henry 2004.) It is easier to come by measures of weight or length—the length of some anatomical feature of the ruler (from which, of course, comes our term for the device used to measure short lengths), or the weight of a quantity of grain. By contrast, development of a money of account used to value items with no obvious similarities required more effort. Orthodoxy has never been able to explain how individual utility maximizers settled on a single numeraire. (Gardiner 2004; Ingham 2004) While use of a single unit of account results in efficiencies, it is not clear what evolutionary processes would have generated the single unit. Further, the higgling and haggling of the market is supposed to produce the equilibrium vector of relative prices, all of which can be denominated in the single numeraire. However, this presupposes a fairly high degree of specialization of labor and/or resource ownership—but this pre-market specialization, itself, is hard to explain. Once markets are reasonably

well-developed, specialization increases welfare; however, without well-developed markets, specialization is exceedingly risky, while diversification of skills and resources would be prudent. It seems exceedingly unlikely that either markets or a money of account could have evolved out of individual utility maximizing behavior.

To be sure, we will never “know” the origins of money. First, the origins are lost “in the mists of time”—almost certainly in pre-historic time. (Keynes 1930, p. 13) It has long been speculated that money predates writing because the earliest examples of writing appear to be records of monetary debts. Recent scholarship indicates that the origin of writing is exceedingly complex—it is not so simple to identify what is “writing”. (Schmandt-Besserat 1989) Similarly, it is not clear what we want to identify as money. Money is social in nature and it consists of a complex social practice that includes power and class relationships, socially constructed meaning, and abstract representations of social value. (More below.) As Hudson (2004) rightly argues, ancient and even “primitive” society was not any less complex than today’s society. (And Gardiner (2004) argues that ancient language—the most social of all behavior—was more complex than modern language.) Economic relations were highly embedded within complex social structures that we little understand. When we attempt to discover the origins of money, we are identifying institutionalized behaviors that appear similar to those today that we wish to identify as “money”. Orthodox economists see exchange, markets, and relative prices wherever they look. For the orthodox, the only difference between “primitive” and modern society is that these early societies are presumed to be much simpler—relying on barter or commodity monies. Hence, economic relations in earlier society are more transparent; innate propensities are laid bare in the Robinson Crusoe economy for the observing economist. While heterodox economists try to avoid such “economistic” blinders, tracing the origins of money necessarily requires selective attention to those social practices we associate with money—knowing full well that earlier societies had complex and embedded economies that differ remarkably from ours.

This negative assessment does not mean that I believe we can learn nothing from a study of money’s history. Far from it. Nonetheless, we must be modest in our claims. Further, we should always keep in mind the purpose of the historical analysis: to shed light on the nature of the social institution we call “money”.

## MONEY AS A SOCIAL RELATION

While Institutionalists have long viewed money as an institution, indeed, as the most important institution in a capitalist economy, most economists have not delved deeply into this. (Dillard 1980) However, if we are to understand the nature of money, it is important to uncover the social relations that are obscured by this institution.

As discussed above, the typical economic analysis starts with barter and the innovative use of money as a medium of exchange. On the surface, this appears to be an “evolutionary” approach that recognizes human agency. However, the orthodox economists turn money into a “natural” phenomenon free from social relationships.

Although economists allow that money is a human invention assuming different forms in different times and places, they adopt an evolutionary perspective that de-emphasizes money's contingency and its ultimate foundation in social convention. As capitalist economies became more complex, money 'naturally' assumed increasingly efficient forms, culminating in the highly abstract, intangible money of today. (Carruthers and Babb 1996, p. 1558)

The innate propensity to “truck and barter” leads naturally to the development of markets. The market, itself, is free of social relations—one checks ideology, power, and social hierarchies at the door when one enters the market place. It is then “natural” to choose a convenient medium of exchange to facilitate impersonal transactions. The ideal medium of exchange is a commodity whose value is natural, intrinsic—free from any hierarchical relations or social symbolism. Obviously, precious metal is meant to fit the bill. The value of each marketed commodity is denominated in the medium of exchange through the asocial forces of supply and demand. Regrettably, nations have abandoned the use of intrinsically valuable money in favor of “fiat” monies. Some economists (Wanniski, Greenspan before he headed the Fed) advocate return to a gold standard, but most accept that this is politically infeasible. Hence, it is necessary to remove as much discretion as possible from monetary and fiscal authorities, to try to ensure that modern fiat money operates in a manner similar to operation of a commodity money. Monetary growth rules, prohibitions on treasury money creation, balanced budget requirements, and the like (not to mention currency boards and dollar standards for developing nations), are all attempts to remove discretion and thereby restore the “natural”, asocial, monetary order. Even some “pure credit” theorists argue that government is, or should be, in the same situation as any other “individual”, with “liabilities” that have to “compete” in frictionless financial markets. (Merhling 2000; Rossi 2000)

Thus, many “forget” that money is a social creation, with social relations hidden under money's veil. As Hilferding put it:

In money, the social relationships among human beings have been reduced to a thing, a mysterious, glittering thing the dazzling radiance of which has blinded the vision of so many economists when they have not taken the precaution of shielding their eyes against it. (Quoted in Carruthers and Babb, 1996, p. 1556)

Simmel put it more concisely: money transforms the world into an “arithmetic problem”. (Quoted in Zelizer 1989, p. 344) The underlying relations are “collectively ‘forgotten about’” in order to ensure that they are not explored. (Carruthers and Babb 1996, p. 1559) Doubters need only examine how money is introduced into modern macroeconomic (“arithmetic”) analyses (and recall Friedman's 1969 famous presumption that money is simply dropped by helicopters).

## THE CREDIT THEORY OF MONEY

Schumpeter made a useful distinction between the “monetary theory of credit” and the “credit theory of money”. The first sees private “credit money” as only a temporary

substitute for “real money”. Final settlement must take place in real money, which is the ultimate unit of account, store of value, and means of payment. Exchanges might take place based on credit, but credit expansion is strictly constrained by the quantity of real money. Ultimately, only the quantity of real money matters so far as economic activity is concerned. Most modern macroeconomic theory is based on the concept of a deposit multiplier that links the quantity of privately created money (mostly, bank deposits) to the quantity of high powered money, HPM. This is the modern equivalent to what Schumpeter called the monetary theory of credit, and Friedman (or Karl Brunner) is the best representative.

The credit theory of money, by contrast, emphasizes that credit normally expands to allow economic activity to grow. This new credit creates new claims on HPM even as it leads to new production. However, because there is a clearing system that cancels claims and debits without use of HPM, credit is not merely a temporary substitute for HPM. Schumpeter does not deny the role played by HPM as an ultimate means of settlement, he simply denies that it is required for most final settlements.

Like Schumpeter, Innes focused on credit and the clearing system. Innes mocked the view that “in modern days a money-saving device has been introduced called *credit* and that, before this device was known all purchases were paid for in cash, in other words in coins.” (1913, 389) Instead, he argued “careful investigation shows that the precise reverse is true”. (1913, 389) Rather than selling in exchange for “some intermediate commodity called the ‘medium of exchange’”, a sale is really “the exchange of a commodity for a credit”. Innes called this the “primitive law of commerce”: “The constant creation of credits and debts, and their extinction by being cancelled against one another, forms the whole mechanism of commerce...” (1913, 393) The following passage is critical.

By buying we become debtors and by selling we become creditors, and being all both buyers and sellers we are all debtors and creditors. As debtor we can compel our creditor to cancel our obligation to him by handing to him his own acknowledgment [sic] of a debt to an equivalent amount which he, in his turn, has incurred. (1913, 393)

The market, then, is not viewed as the place where goods are exchanged, but rather as a clearing house for debts and credits. Indeed, Innes rejected the typical analysis of the village fairs, arguing that these were first developed to settle debts, with retail trade later developing as a sideline to the clearing house trade. On this view, debts and credits and clearing are the general phenomena; trade in goods and services is subsidiary—one of the ways in which one becomes a debtor or creditor (or clears debts).

Finally, banks emerge to specialize in clearing:

Debts and credits are perpetually trying to get into touch with one another, so that they may be written off against each other, and it is the business of the banker to bring them together. This is done in two ways: either by *discounting bills*, or by *making loans*. (Innes 1913, 402)

There is thus a constant circulation of debts and credits through the medium of the banker who brings them together and clears them as the debts fall due. This is the whole science of banking as it was three thousand years before Christ, and as it is to-day. (Innes 1913, 403)

## THE STATE THEORY OF MONEY

Another useful distinction is made by Goodhart (1998), between the metalist approach and the chartalist—or state money--approach. The latter emphasizes that money evolves not from a pre-money market system but rather from the penal system. (Grierson 1977, 1979; Goodhart 1998; Wray 1998) Hence, it highlights the important role played by “authorities” in the origins and evolution of money. More specifically, the state (or any other authority able to impose an obligation) imposes a liability in the form of a generalized, social unit of account--a money--used for measuring the obligation. This does not require the pre-existence of markets, and, indeed, almost certainly predates them. Once the authorities can levy such obligations, they can name what fulfills this obligation. They do this by denominating those things that can be delivered, in other words, by pricing them. This resolves the conundrum faced by methodological individualists and emphasizes the social nature of money and markets—which did not spring from the minds of individual utility maximizers, but rather were socially created.

Note that the state can choose anything to function as the “money thing” denominated in the money of account: “Validity by proclamation is not bound to any material” and the material can be changed to any other so long as the state announces a conversion rate (say, so many grains of gold for so many ounces of silver). (Knapp 1924, 30) What Knapp called the State money stage begins when the state chooses the unit and names the thing accepted in payment of obligations to itself. The final step occurs when the state actually issues the money-thing it accepts. In (almost) all modern developed nations, the state accepts the currency issued by the treasury (in the US, coins), plus notes issued by the central bank (Federal Reserve notes in the US), plus bank reserves (again, liabilities of the central bank)—HPM. The material from which the money thing issued by the state is produced is not important (whether it is gold, base metal, paper, or even digitized numbers at the central bank). No matter what it is made of, the state must announce its nominal value (that is to say, the value at which the money-thing is accepted in meeting obligations to the state).

Innes insisted that even state money is credit, however, it is a special kind of credit, “redeemed by taxation”. (1914, p. 168) For the government, a dollar is a promise to ‘pay’, a promise to ‘satisfy’, a promise to ‘redeem,’ just as all other money is. Innes argues that even on a gold standard it is not gold that government promises to pay. If government paper money is submitted in exchange for gold, government promises to pay have not been reduced:

It is true that all the government paper money is convertible into gold coin, *but redemption of paper issues in gold coin is not redemption at all, but merely the*

*exchange of one form of obligation for another of an identical nature.* (1914, p. 165)

Whether the government's IOU is printed on paper or on a gold coin, it is indebted just the same. What, then, is the nature of the government's IOU? This brings us to the "very nature of credit throughout the world", which is "the right of the holder of the credit (the creditor) to hand back to the issuer of the debt (the debtor) the latter's acknowledgment or obligation". (1914, p. 161)

The holder of a coin or certificate has the absolute right to pay any debt due to the government by tendering that coin or certificate, and it is this right and nothing else which gives them their value. It is immaterial whether or not the right is conveyed by statute, or even whether there may be a statute law defining the nature of a coin or certificate otherwise. (1914, p. 161)

What, then, is special about government? The government's credit "usually ranks in any given city slightly higher than does the money of a banker outside the city, not at all because it represents gold, but merely because the financial operations of the government are so extensive that government money is required everywhere for the discharge of taxes or other obligations to the government." (1914, p. 154) The special characteristic of government money, then, is that it is "redeemable by the mechanism of taxation" (1914, p. 15): "[I]t is the tax which imparts to the obligation its 'value'.... A dollar of money is a dollar, not because of the material of which it is made, but because of the dollar of tax which is imposed to redeem it" . (1914, p. 152)

By contrast, orthodox economists are "metalists" (as Goodhart 1998 calls them), who argue that until recently, the value of money was determined by the gold used in producing coins or by the gold backing paper notes. However, in spite of the amount of ink spilled about the gold standard, it was actually in place for only a short period. Typically, the money-thing issued by the authorities was not gold-money nor was there any promise to convert the money-thing to gold. Indeed, as Innes insisted, throughout most of Europe's history, the money-thing issued by the state was the hazelwood tally stick: "This is well seen in medieval England, where the regular method used by the government for paying a creditor was by 'raising a tally' on the Customs or on some other revenue getting department, that is to say by giving to the creditor as an acknowledgment [sic] of indebtedness a wooden tally." (1913, p. 398) Other money-things included clay tablets, leather and base metal coins, and paper certificates. Why would the population accept otherwise "worthless" sticks, clay, base metal, leather, or paper?

The government by law obliges certain selected persons to become its debtors....

This procedure is called levying a tax, and the persons thus forced into the position of debtors to the government must in theory seek out the holders of the tallies or other instrument acknowledging a debt due by the government, and acquire from them the tallies by selling to them some commodity or in doing them some service, in exchange for which they may be induced to part with their tallies. When these are returned to the government treasury, the taxes are paid. How literally true this is can be seen by examining the accounts of the sheriffs in England in the olden days. They were the collectors of inland taxes, and had to



bring their revenues to London periodically. The bulk of their collections always consisted of exchequer tallies, and though, of course, there was often a certain quantity of coin, just as often there was, one at all, the whole consisting of tallies. (1913 p. 398)

Contrary to orthodox thinking, then, the desirability of the money-thing issued by the state was not determined by intrinsic value, but by the nominal value set by the state at its own pay offices.

Once the state has created the unit of account and named what can be delivered to fulfill obligations to the state, it has generated the necessary pre-conditions for development of markets. The evidence suggests that early authorities set prices for each of the most important products and services. Once prices in money were established, it was a short technical leap to creation of markets. This stands orthodoxy on its head by reversing the order: first money and prices, then markets and money-things (rather than barter-based markets and relative prices, and then numeraire money and nominal prices). The next step was the recognition by government that it could issue the money-thing to purchase the mix it desired, then receive the same money thing in the tax payments by subjects/citizens. This would further the development of markets because those with tax liabilities but without the goods and services government wished to buy would have to produce for market to obtain the means of paying obligations to the state.

#### IMPLICATIONS FOR OPERATION OF MODERN MONEY SYSTEMS

When a modern government spends, it issues a check drawn on the treasury; its liabilities increase by the amount of the expenditure and its assets increase (in the case of a purchase of a good produced by the private sector) or some other liabilities are reduced (in the case of a social transfer). The recipient of the check will almost certainly present it to a bank for currency or deposit. In the former case, the bank's reserves are first increased and then are reduced by the same amount. In the latter case, reserves are credited in the amount of the deposit. The reserves credited as the bank's asset and as the central bank's (CB) liability are nothing less than a claim on government-issued money, or, a leveraging of HPM. In other words, treasury spending by check really is the equivalent of "printing money" in that it increases the supply of HPM. Unless bank required reserves increase by an equivalent amount, the banking system finds itself with excess reserves after the treasury has spent.

The important thing to notice is that the treasury can spend before and without regard to previous receipt of taxes or prior bond sales. In the US, taxes are received throughout the year (although not uniformly as tax payments are concentrated around April 15 ). These are mostly paid into special tax accounts held at private commercial banks. (Bell 2000) It is true that the treasury transfers funds to its account at the CB when it wishes to spend, but this is really a reserve maintenance operation designed to minimize effects on reserves. When the treasury spends, bank reserves increase by approximately the same amount (less only cash withdrawals) so that the simultaneous transfer from tax accounts to the CB neutralizes reserve effects. Tax payments lead to a reserve drain as the treasury

submits checks received to the CB for clearing, at which point the CB debits bank reserves.

These additions to/subtractions from reserves are carefully monitored and regulated by coordination between the CB and the treasury. Things would be much simpler and more transparent if tax receipts and treasury spending were perfectly synchronized. In that case, the treasury's spending would increase reserves, and the simultaneous tax payments would reduce them. If the government ran a balanced budget there would be no net impact on reserves, so there would be no need for complex coordination between the CB and treasury using tax and loan accounts. However, when spending exceeds tax revenues (a budget deficit), there is a net injection of reserves. It is possible that the extra reserves created happen to coincide with growing bank demand for reserves—in which case the treasury and CB need do nothing more. More probably, the net injection of reserves leads to excess reserves, offered in the overnight market. Excess reserves cause the overnight rate to fall below the CB's target, inducing it to drain reserves either through an open market sale or by reducing its discounts. When the treasury runs a sustained deficit, the CB must continually intervene, eventually running out of bonds to sell. This is why, over the longer run, responsibility for bond sales to drain excess reserves must fall to the treasury—which faces no limit to its own sales of bonds as it can create new bonds as needed.

While it may sound strange, we conclude that treasury bond sales are not a borrowing operation at all, but are a reserve draining operation (that substitutes one kind of government liability for another). Indeed, the treasury cannot really sell bonds unless banks already have excess reserves, or unless the CB stands ready to provide reserves the banks will need to buy the bonds. If the treasury typically tried to first “borrow” by selling bonds *before* it spent, it would be draining reserves it will create only *once* it spends. As it drained required or desired reserves, it would cause the fed funds rate to rise above the CB's target—inducing an open market purchase and injection of reserves.

Another way of putting it is that government spends by issuing IOUs, and the private sector uses those IOUs to pay taxes and buy government bonds. Obviously, if government spending were the only source of these IOUs, the private sector could not pay taxes or buy bonds *before* the government provided them. In the real world, government spending on goods and services is the main, but not the only source, of the IOUs needed by the private sector to pay taxes and buy government bonds. In addition, the CB provides reserves through discounts or open market operations (or, gold and foreign currency purchases), and these IOUs are perfect substitutes for treasury IOUs.

We conclude that the purpose of government bond sales is not to borrow reserve, but to offer an interest-earning alternative to undesired reserves that would otherwise drive the fed funds (overnight) rate toward zero. Note that if the CB paid interest on excess reserves, the treasury would never need to sell bonds because the overnight interest rate could never fall below the rate paid by the CB on excess reserves. Note also that in spite of the widespread belief that government deficits push up interest rates, they actually reduce the overnight rate to zero unless the treasury and CB coordinate efforts to drain

the resulting excess reserves. (For proof, note that for many years the overnight interest rate in Japan has been kept at zero, in spite of government deficits that reached 8% of GDP, merely by keeping some excess reserves in the banking system.) On the other hand, budget surpluses drain reserves, causing a shortage that drives up the overnight rate unless the CB and treasury buy and/or retire government debt. Needless to say, orthodoxy has got the interest rate effects of government budgets exactly backwards.

## CONCLUSION: AN INTEGRATION OF THE CREDITARY AND STATE MONEY APPROACHES

To put it as simply as possible, the state chooses the unit of account in which the various money things will be denominated. In all modern economies, it does this when it chooses the unit in which taxes will be denominated and names what is accepted in tax payments. Imposition of the tax liability is what makes these money things desirable in the first place. And those things will then become the money-thing at the top of the “money pyramid” used for ultimate clearing.

Of course, most transactions that do not involve the government take place on the basis of credits and debits, that is, privately-issued money-things. This can be thought of as leveraging activity—a leveraging of HPM. However, this should not be taken the wrong way—we are not hypothesizing some fixed leverage ratio (as in the orthodox deposit multiplier story). Further, in all modern monetary systems the central bank targets an overnight interest rate, standing by to supply HPM on demand to the banking sector (or to withdraw it from the banking sector) to hit its target. Thus, both the CB and treasury supply HPM. However, the central bank never drops HPM from helicopters. It either buys assets or requires collateral against its lending, and it may well impose other “frown” costs on borrowing banks. Hence, while central bank provision of HPM provides a degree of “slop” to the system, the value of HPM is ultimately determined by what the population must do to obtain it from government.

Likewise, the privately-supplied credit money is never dropped from helicopters. Its issue simultaneously puts the issuer in a credit and debit situation, and does the same for the party accepting the credit money. For example, a bank creates an asset (the borrower’s IOU) and a liability (the borrower’s deposit) when it makes a loan; the borrower simultaneously becomes a debtor and a creditor. Banks then operate to match credits and debits while net clearing in HPM. Borrowers operate in the economy to obtain bank liabilities to cancel their own IOUs to banks. There is an important hierarchical relation in the private debt/credit system, with power—especially in the form of command over society’s resources—underlying and deriving from the hierarchy. Ultimately, the ability to impose liabilities, name the unit of account, and issue the money used to pay down these liabilities gives a substantial measure of power to the authority. There is, thus, the potential to use this power to further the social good, although misunderstanding or mystification of the nature of money results in an outcome that is far below what is economically feasible.

Far from springing from the minds of atomistic utility maximizers, money is a social creation. The private credit system leverages state money, which in turn is supported by the state's ability to impose social obligations mostly in the form of taxes. This allows society to marshal resources for the public purpose. While it is commonly believed that taxes “pay for” government activity, actually obligations denominated in a unit of account create a demand for money that, in turn, allows society to organize social production, partly through a system of nominal prices. Much of the public production is undertaken by emitting state money through government purchase, although extra-monetary means are also invoked (conscription for the military; eminent domain; “nationalization” of resources; control exercised through rules and regulations). Much private sector activity, in turn, takes the form of “monetary production”, or M-C-M' as Marx put it, that is through monetary purchase of required inputs with a view to realizing “more money” with the sale of final product. The initial and final purchases are mostly financed on the basis of credits and debits—that is, “private” money creation. Because money is fundamental to these production processes, it cannot be neutral. Indeed, it contributes to the creation and evolution of a “logic” to the operation of a capitalist system, “disembedding” the economy to a degree never before encountered. At the same time, many of the social relations can be, and are, hidden behind a veil of money. This becomes most problematic with respect to misunderstanding about government budgets, where the monetary veil conceals the potential to use the monetary system in the public interest.

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