Anarchist Notes on the Theory of Money, Credit, and Capital

Part II: Past, Present and Future of Money

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I. City-States, Temple Economies, and their Credit Systems

It makes no sense to seek the historical origin of money unless we start from a definition of what money *is*. I start from L. Randall Wray's contention that the defining feature of money is providing a unit of account, and that all the other conventionally assigned attributes of money are secondary where they exist at all.

> In this approach, money cannot be identified by its peculiar individual physical "characteristics" (malleable, durable, transportable), nor by its functions (transactions medium, means of payment, etc.). Rather, money is defined with respect to the operation of the economy as a whole. Money is identified as a unit of account; it becomes the social measure of value in all monetary economies. It is an abstract "measuring unit."...
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> It is necessary to distinguish between money as a measuring unit and those assets denominated in the money of account. Thus, bank deposits are not money, but are denominated in the social unit of account — that is, money (the dollar in the US). Similarly, it is necessary to distinguish between money and those various functions performed by assets denominated in the unit of account: money is not what money does. Some money-denominated assets function as media of exchange or means of payment. While these functions are typically fulfilled by certain money-denominated assets, this does not make any particular asset that so functions money.[1]

In other words money is the unit of account, "the numéraire in which credits and debts are measured."[2]

The conventional account is just the opposite. If we start at the earliest point touched on by conventional histories of money — or by conventional economics texts' speculations on the origins of money — we are almost always presented with a Robinsonade in which specie money was introduced as a "universal commodity" in response to the problems of "dual coincidence of wants" in the previous barter regime. The metallists' just so story regarding the origin of money defines it primarily in terms of its function of medium of exchange and means of payment, and traces it back to a "primitive barter economy" whose historicity, to put it charitably, is about on the level of the original contract or the peaceful appropriation of land from the common.

This can be traced back to Aristotle, who theorized that money arose as a

1L. Randall Wray, *Introduction to an Alternative History of Money*. Working Paper No. 717 (Levy Economics Institute of Bard College, May 2012), pp. 8-9.

2Éric Tymoigne and L. Randall Wray, *Money: An Alternative Story*. The Levy Economics Institute, Bard College. Working Paper No. 45 (University of Missouri at Kansas City, July 2005). Unpaginated.

solution to the problems associated with barter.

> When the inhabitants of one country became more dependent on those of another, and they imported what they needed, and exported the surplus, money necessarily came into use. For the various necessities of life are not easily carried about, and hence men agreed to employ in their dealings with each other something which was intrinsically useful and easily applicable to the purposes of life, for example, iron, silver, and the like.[3]

Aristotle's theory of the origin of money, Sasan Fayazmanesh writes, has "nothing to do with reality."

> Even though his primordial theory of how money came into being sounds simple and rational, it is nevertheless fictitious. The first community or family, its lack of exchange, its division into parts, the subsequent barter of such things as wine for corn, the development of more complex forms of exchange, the difficulties associated with carrying the necessities of life, the agreement among men to employ useful objects, the stamping of these objects, etc., are all figments of Aristotle's imagination and have no historical support.[4]

Mainstream theories of the origin of money, up until the 20th century at least, were mostly warmed-over Aristotle. They have all speculated, with a degree of certainty approaching statements of fact, that money arose as a solution to practical problems associated with barter.

> In one form or another, Aristotle's story has been repeated by many generations of economists up to the present time. The explanation is indeed the backbone of monetary theory to this day, and it is difficult to find a modern textbook that does not repeat some version of it.[5]

Adam Smith, for example, speculated: "One man, we shall suppose, has more of a certain commodity than he himself has occasion for, while another has less."

> The former consequently would be glad to dispose of, and the latter to purchase, a part of this superfluity. But if this latter should chance to have nothing that the former stands in need of, no exchange can be made between them…. In order to avoid the inconveniency of such situations, every prudent man in every period of society, after the first establishment of the division of labour, must naturally have endeavoured to manage his affairs in such a manner, as to have at all times by him, besides the peculiar produce of his own industry, a certain quantity of some one commodity or other, such as he imagined few people would be likely to refuse in exchange for the

3Aristotle, *The Politics of Aristotle*, translated with Introduction and notes by Benjamin Jowett (Oxford: Clarendon Press, 1885), p. 16.
4Sasan Fayazmanesh, *Money and Exchange: Folktales and Reality* (New York: Routledge, 2006), p. 24.
5*Ibid.*, p. 11.

produce of their industry.

> Many different commodities, it is probable, were successively both thought of and employed for this purpose….
>
> In all countries, however, men seem at last to have been determined by irresistible reasons to give the preference, for this employment, to metals above every other commodity.[6]

Although he wrote at considerably greater length, Carl Menger — the founder of Austrian economics — essentially restated Smith's hypothesis with more technical language.

> Consider how seldom it is the case, that a commodity owned by somebody is of less value in use than another commodity owned by somebody else! And for the latter just the opposite relation is the case. But how much more seldom does it happen that these two bodies meet! Think, indeed, of the peculiar difficulties obstructing the immediate barter of goods in those cases, where supply and demand do not quantitatively coincide….[7]

People with a superfluity of one kind of good, who were in need of another kind of good, circumvented this problem, in cases where no one with the good of which they were in need was in need of what they had to offer, by bartering their goods for some other more salable good, which they had a higher likelihood of exchanging for the goods they desired.[8] Over time, through a spontaneous process, some especially salable good, which was also convenient by reason of its portability, divisibility, and other features, gradually emerged as a generally acceptable medium of exchange.

This scenario amounts to a transposition of modern society, atomistic and exchange-based — in all its essentials minus money — into the prehistoric past. It then imagines what a rational, utility-maximizing economic man would do in order to facilitate exchange in such an environment. Its main shortcomings are that, not only is there absolutely no historical evidence of money arising under such circumstances, but it contradicts everything we know about the communal property forms and gift economies that predated the rise of states and money economies. As Michael Hudson writes:

> The underlying problem is one of ideological blinders. The individualistic theory has been expounded in the form of an antigovernment fable of how money might have originated among individuals, or at least among modern individuals transplanted five thousand years into the past and

6 Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, vol. 1. The Glasgow Edition of the Works and Correspondence of Adam Smith. R.H. Campbell and A.S. Skinner, general eds. Textual editor W.B. Todd (Oxford University Press, 1976). 1981 Liberty Classics reprint, pp. 37-38.

7 Carl Menger, *On the Origin of Money* (1892). Pdf version hosted at Anna's Archive <https://annas-archive.org/md5/95ba428fbf81d04258c3e3b175f4cccd>, p. 9.

8 *Ibid.*, p. 16.

> paying cash on the barrel. Such speculation describes a world that hypothetically might have developed, but without regard to how civilisation's early economic institutions actually evolved. Its criterion for acceptability has become simply whether its assumptions are logically consistent, not whether they are grounded in historical reality.[9]
>
> Monetary historiography based on the cuneiform record stands in contrast to the deductive approach of modern economic individualism. That school starts with the assumption that individuals seeking their own self-interest must have developed nearly all modern social institutions. In this view such individuals hit upon the fortuitous invention of money as a means of economizing on the transaction cost of their commercial exchanges in the context of what had been barter trade.[10]

Likewise, histories of the origins of banking — usually medieval goldsmiths lending against their gold reserves — start with specie money in use and accepted, as a matter of course, as the commodity in which money lenders dealt.

As Hudson presents them, the conventional account of money and credit — like liberal theories of the social contract and the original appropriation of property — are bourgeois nursery fables or just-so stories that start from the assumption of atomized individuals.

> Today's economic ideology rarely deems public agencies to have played a productive role in civilization's takeoff. Archaic surpluses are assumed to have been produced by individuals who lent out cattle, seeds or tools in exchange for interest to be paid out of their yield or output, which in due course came to be monetized.
>
> This myth assumes that interest and mercantile profit are universal and timeless — while depicting palaces, temples and public regulations as drags on economic development, not catalysts for a takeoff.[11]

Contrary to this conventional picture, scholars like Wray, Hudson and David Graeber tell us the first money was credit. To quote Wray again: "The origins of money are not to be found, then, in a hypothesized exchange society based on barter. Instead, money develops as a unit of account, or, as the terms in which debts are written…."[12]

Graeber argues, at greater length, that "[c]redit systems, tabs, even expense

9Michael Hudson, "The Archaeology of Money: Debt versus Barter Theories of Money's Origins," in L. Randall Wray, ed., *Credit and State Theories of Money: The Contributions of A. Mitchell Innes* (Cheltenham, UK and Northampton MA: Edward Elgar, 2004), p. 114.

10*Ibid.*, p. 120.

11Michael Hudson, *And Forgive Them Their Debts: Lending, Foreclosure and Redemption From Bronze Age Finance to the Jubilee Year* (Dresden: ISLET-Verlag, 2018), p. 105. Pagination from pdf at Anna's Archive <https://annas-archive.org/md5/f5211c528878e0e2057bce2259fc7e04>.

12Wray, *Introduction to an Alternative History of Money*), p. 15.

accounts, all existed long before cash."[13] Hudson takes things back to the origin of money as an accounting and credit system used by the bureaucracies of Sumerian temple complexes.[14]

For Wray, money as such did not exist in what he calls "primitive" societies, but made its first appearance only in the temple economies of riverine civilizations like Sumer.

> Much of the confusion over whether primitive economies use "money" results because those who study such societies merely look to see whether these "primitive" societies might have any objects which perform some of the functions we associate with modern "money." Once money is clearly separated from some of the functions it performs in modern monetary economies, it becomes apparent that primitive "monies" are not money.[15]

Hudson, likewise, contends that large-scale economic coordination was first practiced by large public institutions like the temples, from which it decentralized and spread to individual and local transactions. The appearance of a uniform numerical standard of value for exchange, he argues, awaited the rise of large-scale economic institutions; the reciprocal gift exchanges in pre-state villages did not constitute money.[16] Although there had been customarily defined units of payment (cattle, etc.) for debts incurred for injury or breach of the peace, "[w]hat Sumer added were mercantile debts valued in terms of general-purpose money."

> The monetary system was more than just a commodity to be bartered or exchanged; it was nothing less than a common schedule of values for various commodities that could be used interchangeably to settle balances. Often the designated commodity was whatever the payer was able to pay most readily. Cultivators used barley and merchants used silver as the two major modes of payment, but other commodities were assigned standardized proportions (that is, "prices") for settling balances — wool, goats, oxen, copper, gold and other key commodities. What had been informal exchange at more or less spontaneously determined prices, typically among chieftains acting at least nominally on behalf of their communities (if modern anthropological practice is any guide), became more formalized and impersonal as goods were produced in standardized units at uniform prices.[17]
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> A century ago it was widely assumed that production and trade evolved from a small private scale to a larger, ultimately public scale. But just the

13 David Graeber, *Debt: The first 5,000 Years* (Brooklyn and London: Melville House, 2011), p. 18.
14 Hudson, *And Forgive Them Their Debts*, p. 105.
15 Wray, p. 9.
16 Michael Hudson, "Reconstructing the Origins of Interest-Bearing Debt and the Logic of Clean Slates," in Michael Hudson and Marc Van de Mieroop, eds., *Debt and Economic Renewal in the Ancient Near East* (Bethesda: CDL Press, 2002), p. 10.
17 *Ibid.*, pp. 15-16.

> reverse appears to have occurred in antiquity. Sumer's temples and palaces represented a quantum leap in the scale of organizing and articulating economic relations…. It was this scale that promoted the development of economic management techniques, standardized production and distribution units that private individuals later would adopt in smaller contexts.[18]

Although the units of account were defined in terms of quantities of some commodity or other, they did not require the commodity as a means of payment.

> The kind of general-purpose money our civilisation has come to use commercially was developed by the temples and palaces of Sumer (southern Mesopotamia) in the third millennium BC. …[T]hese institutions introduced money prices (and silver money itself) mainly for their own administrative purposes. Their large scale and specialisation of economic functions required an integrated system of weights, measures and price equivalencies to track the crops, wool and other raw materials distributed to their dependent labour force, and to schedule and calculate the flow of rents, debts and interest owed to them. The most important such debts were those owed for consigning handicrafts to merchants for long-distance trade, and land, workshops, ale houses and professional tools of trade to 'entrepreneurs' acting as subcontractors.
>
> Accounting prices were assigned to the resources of these large institutions, expressed in silver weight-equivalency, as were public fees and obligations. Setting the value of a unit of silver as equal to the monthly barley ration and land-unit crop yield enabled it to become the standard measure of value and means of payment…. Under normal conditions these official proportions were reflected in transactions with the rest of the economy.[19]

These temple economies, with their internal units of account defined in terms of measures of precious metals, emerged "more than two thousand years before the first coins were struck."[20]

Hudson asserts: "There is no evidence that money evolved 'naturally' out of barter or for that matter in an agricultural or pastoral context. Such a world has been imagined on the ground of abstract logic at odds with the archaeological and historical record."[21]

Wray agrees. "Temples seem to have played a role in standardizing the unit of account," which happened to be a measure of wheat.[22]

18 *Ibid*., p. 16.
19 Hudson, "The Archaeology of Money," pp. 99-100.
20 *Ibid.*, p. 100.
21 *Ibid.*, p. 101.
22 Wray, *Introduction to an Alternative History of Money*, p. 14.

Measures of precious metals simply served as a standard of value for denominating the internal unit of account for palaces and temples — amounting to an accounting unit for what today would be called internal transfer prices.

> By the end of the third millennium royal proclamations had established the use of silver money as a tool to allocate the flow of resources and leasing of productive assets. As an adjunct to their specialisation of labour and the debts owed to the public institutions, the primary role of money was to denominate obligations within and between the temples and palace.[23]
>
> The economy's defining monetary transactions occurred as accounting entries on tablets within the large institutions. Money's role was to provide the price dimension needed to quantify and administer these activities on a monthly and annual basis. These accounting prices were an intrinsic part of the system of weights and measures, with weighed silver designated as the common denominator, it being also the sanctified store of value.[24]

In Henry's account of the origin of money in Egypt, like Hudson's account of Mesopotamia, money as a unit of account was defined in terms of physical commodities as a standard measure, but the commodities themselves did not serve as media of exchange.

> A few surviving contracts, mainly from the New Kingdom, demonstrate that goods were then valued in terms of the deben (and labour services in the pyramid cities determined by the deben value of consumption goods), but no debens ever changed hands. Administered price lists were established, but the Egyptians had no coinage until the Ptolemaic period of the last three centuries BC. Basically, the scribes (and increasingly other sections of the population) maintained their accounts in the decreed unit of account, but payments were made in goods. 'Such divergences between the money in which prices are reckoned and the commodities in which debts are discharged represent . . . a fairly common phenomenon in history.' In other words, money does not originate as a medium of exchange but as a unit of account (and something of a store of value with regard to the king's treasury), where the measure of value is arbitrarily specified by decree, and goods and services of various qualities and quantities can then be assigned a monetary value to allow a reasonable form of bookkeeping to keep track of tax obligations and payments and to maintain the separate accounts of the king.[25]

Hudson argues that large-scale temple organizations were the source of credit

23Hudson, p. 112.

24*Ibid.*, pp. 112-113.

25John F. Henry, "The Social Origins of Money: The Case of Egypt," in L. Randall Wray, ed., *Credit and State Theories of Money: The Contributions of A. Mitchell Innes* (Cheltenham, UK and Northampton MA: Edward Elgar, 2004), p. 92.

and economic coordination because they controlled society's surplus.

> …Mesopotamia's large-scale organization involved entrepreneurs acting in association with the palaces and city-temples, simply because that is where the money and surpluses were concentrated. Merchants (*dam-gàr* in Sumerian, *tamkārum* in Babylonian) and officials or collectors in the palace or temple hierarchy built up fortunes in conjunction with that of the large institutions.
>
> Temples were endowed to be self-supporting as corporately distinct institutions, supporting a dependent labor force with land and herds of animals set corporately apart from the community's family holdings. As major producers of export goods for palace merchants to exchange for raw materials, as well as leasers of land and infrastructure, temples developed financial practices much larger in scale than the interpersonal "anthropological" scale of chiefs or clan heads acting simply on their own account.
>
> Temples were the centers where accounting practices were innovated above all because of their role in mobilizing labor. This required detailed forward planning to allocate materials, and that in turn requited detailed accounts….
>
> Dominated by palace and local elites, and later by the nomadic leaders who conquered southern Mesopotamia, temples served as public utilities along formalized "economic" lines. Royal inscriptions describe their wealth as serving the common good, with rhetoric that anticipates the euphemisms of politicians and bankers in today's world.
>
> The temples' role as monetary centers stemmed from the fact that they were the main repositories for society's savings (grain and precious metals), and their oversight role in being charge of refining the precious metals.[26]

Sumerian temples organized long distance trade, in the process advancing trade goods or precious metals to merchants and collecting interest from the profits of their expeditions; and hired out temple lands to sharecroppers in return for a defined portion of the harvest.[27]

If the first money was credit, and it served as a simple unit of account for coordinating production, the question remains of how and why interest on debt first arose. The where and how are easiest to answer. Hudson observes that surviving records show "close associations" between debt and Sumerian temples early in the 3rd millennium. And interest-bearing debt was probably associated in large part

26Hudson, pp. 105-106. Pagination from pdf at Anna's Archive <https://annas-archive.org/md5/f5211c528878e0e2057bce2259fc7e04>.

27Hudson, "Reconstructing the Origins of Interest-Bearing Debt and the Logic of Clean Slates,"p. 21 *et seq*.

with their function of advancing goods to traveling merchants.

> Although what I suspect to be the original interest-bearing debts are the least documented — advances of handicrafts to merchants associated with the large institutions as officials or holders of *damgar* status — the central position of the temples and palaces is well documented, including their precedence in developing sexagesimal weights and measures, their more articulated specialization of labor and their central role in sponsoring long-distance trade.[28]

Graeber speculates that interest first appeared on advances to temple-organized trade expeditions. In part, it served as a risk premium and a solution to moral hazard:

> …[T]emples and palaces would forward wares to merchants and commercial agents, who would then trade them in nearby mountain kingdoms or on trading expeditions overseas.
>
> The practice is significant because it implies a fundamental lack of trust. After all, why not simply demand a share in the profits? This seems more fair (a merchant who came back bankrupt would probably have little means of paying anyway) , and profit-sharing partnerships of this sort became common practice in the later Middle East. The answer seems to be that profit-sharing partnerships were typically contracted between merchants, or anyway people of similar background and experience who had ways of keeping track of one another. Palace or temple bureaucrats and world-roaming merchant adventurers had little in common, and the bureaucrats seem to have concluded that one could not normally expect a merchant returned from a far-off land to be entirely honest about his adventures. A fixed interest rate would render irrelevant whatever elaborate tales of robbery, shipwreck, or attacks by winged snakes or elephants a creative merchant might have concocted. The return was fixed in advance.[29]

But more importantly it served, not as compensation for the "sacrifice" or "use" of money by the lender, but as a source of revenue for financing the temples' economic coordination and social welfare functions. According to Hudson, the temples

> took on the role that chieftains played in less bifurcated societies, in which outsiders seeking asylum were assigned to the chieftain's household. They housed war widows and orphans, the blind, crippled, infirm and elderly whose relatives could not afford to support them. As a result of infirmity, or loss of their husbands and fathers through warfare or disease, these dependents were set to work grinding flour, producing textiles and other

28 *Ibid.*, p. 50.
29 Graeber, *Debt*, p. 215.

handicrafts with a specialization of labor far above the family scale, as well as gardening and performing other tasks in an epoch when there was scant supply of wage labor. Modern jargon would describe this as turning welfare functions into "workfare" or "working for the dole."

Construction of early cities had created a communal spirit around the temples, enabling "much of the resources of these early cities [to be] organized for institutional benefit." That benefit included foreign trade to obtain raw materials from distant lands — trade that was left to travelling merchants. The result was a mixed economy in which "the efficient operation of the economy by the central administration was dependent on the existence of individual entrepreneurs." A symbiosis developed between these institutions and the merchants to whom their administration consigned textiles, crops and other products. Palaces and temples were major actors in domestic agriculture and crafts, while private traders moved in more "market-like" parts of the economy.[30]

Yves Smith notes that early temple complexes' factories "were at least partly charitable enterprises, homes for orphans, refugees or disabled people."[31] And the temple and palace bureaucracies did not finance their operations through taxation:

> Mesopotamia was different because the state emerged unevenly and incompletely. At first there were giant bureaucratic temples, then also palace complexes, but they weren't exactly governments and they didn't extract direct taxes – these were considered appropriate only for conquered populations. Rather they were huge industrial complexes with their own land, flocks and factories. This is where money begins as a unit of account; it's used for allocating resources within these complexes.[32]

And although interest was frowned on in cases not involving people outside of social trust networks, Hudson repeats,

> a widely permitted exception to traditions against profit seeking occurs when the gains are sought on behalf of institutions sanctified by the community to perform functions deemed socially necessary. Sumer's temples played such a role. They supported war orphans and widows in their workshops, setting them to work weaving textiles. These were consigned to traders to exchange in distant lands for needed raw materials, as well as to sell locally for barley or other crops.[33]

Money as a unit of account gradually spread from the temple and palace

30 Hudson, *And Forgive Them Their Debts*, p. 107.

31 Yves Smith, "What is Debt? — An Interview with Economic Anthropologist David Graeber," *Naked Capitalism*, August 26, 2011 <https://www.nakedcapitalism.com/2011/08/what-is-debt-%E2%80%93-an-interview-with-economic-anthropologist-david-graeber.html>.

32 *Ibid.*

33 Hudson, "Reconstructing the Origins of Interest-Bearing Debt and the Logic of Clean Slates," p. 12.

economies to the surrounding society, and resulted in the emergence of a money economy. This development went hand in hand with the use of interest-bearing credit by private parties. Graeber writes:

> In the great temple and palace complexes, not only did money serve largely as an accounting measure rather than physically changing hands, merchants and tradespeople developed credit arrangements of their own. Most of these took the physical form of clay tablets, inscribed with some obligation of future payment, that were then sealed inside clay envelopes and marked with the borrower's seal. The creditor would keep the envelope as a surety, and it would be broken open on repayment. In some times or places at least, these bullae appear to have become what we would now call negotiable instruments, since the tablet inside did not simply record a promise to pay the original lender, but was designated "to the bearer" — in other words, a tablet recording a debt of five shekels of silver (at prevailing rates of interest) could circulate as the equivalent of a five-shekel promissory note — that is, as money.
>
> We don't know how often this happened; how many hands such tablets would typically pass through, how many transactions were based on credit, how often merchants actually did weigh out silver in rough chunks to buy and sell their merchandise, or when they were most likely to do so…. We know even less about the marketplaces frequented by ordinary Mesopotamians, except that tavern-keepers operated on credit, and hawkers and operators of market stalls probably did as well.[34]

Hudson, likewise, notes that "[a]s monetary wealth spread, mercantile officials acting in their own private capacity adopted the practice of charging interest." This took the form of loans to traders and "distress loans to cultivators in distress or who lacked the resources to pay the fees owed to the palace or temples."[35] Yves Smith agrees:

> The first markets form on the fringes of these [temple] complexes and appear to operate largely on credit, using the temples' units of account. But this gave the merchants and temple administrators and other well-off types the opportunity to make consumer loans to farmers, and then, if say the harvest was bad, everybody would start falling into debt-traps.[36]

Ironically, as Hudson speculates, the original use of interest to finance socially beneficial functions may have added moral legitimacy to usury as a means of private profit.

> As the major organizers of trade, temple and palace administrators

34Graeber, *Debt*, pp. 214-215.
35Hudson, "Reconstructing the Origins of Interest-Bearing Debt and the Logic of Clean Slates," p. 50.
36Smith, "What is Debt?"

> advanced these handicrafts and other assets to merchants and "entrepreneurs," as well as land to sharecroppers for a stipulated return. This helped legitimize profit-making, along with the interest that the temples charged merchants for the goods and other institutional assets they advanced. The temples thus became the midwife sanctifying Mesopotamia's commercial breakthrough. In time, religion would come to denounce the charging of interest, at least in the case of rural usury, but city-temples are likely to have been the practice's initial promoters and beneficiaries.[37]

The invention of credit and money by Sumerian temples, and their spread to the outside society was the basis for a social revolution: a macro economy based on money exchange and private credit. In Mesopotamia of the 3rd millennium BCE, Hudson says,

> the most important creditors were the large institutions, not individuals acting on their own. Interest-bearing debt was part of a cluster of breakthroughs that included standardized weights and measures, administered prices, rations and other remuneration of labor, and the designation of silver and barley as monetary commodities. These innovations made a quantum leap beyond "anthropological" reciprocity to more impersonal economic relationships replete with formal written contracts duly witnessed and notarized, and audited annual accounts to administer the flow of resources within the temples and palaces.
>
> Most debts were owed by traders, "entrepreneurs" and sharecroppers to the temples and palaces, and by other community members to palace collectors. These debts reflected the fact that the major rental lands belonged to the temples and palaces, whose workshops supplied merchants with handicrafts and other inventories to trade abroad for the raw materials needed by southern Mesopotamia. In this respect the economic impetus was provided primarily by the need to facilitate commercial articulation, not the division of labor as such. In other regions a specialization of production evidently occurred without a need to develop interest-bearing debt.[38]

To this, Mieroop contrasts the Old Babylonian period of the early and mid-2nd millennium:

> It is remarkable how the bias of our documentation has shifted from the preceding Ur III period. While the 21st-century textual record derives almost exclusively from central institutions, the temples and palaces of the early second millennium are poorly documented as compared to the private citizenry. The large majority of tablets from both licit and illicit excavations were found in the domestic quarters of the cities. As Renger argues, this shift

37 Hudson, "Reconstructing the Origins of Interest-Bearing Debt and the Logic of Clean Slates," p. 12.
38 *Ibid.*, pp. 12-13.

in focus is partly explained by changes in the structure of the Babylonian economy. The central institutions "privatized" many of their services, and a system that he and others have called "Palastgeschäft" became the dominant mode of organization for production and exchange. Private individuals acted as intermediaries between institutions and the citizenry, collecting dues, issuing payments and organizing the collection and distribution of resources. These middlemen received and issued credit extensively, as is to be expected in an agricultural economy. The same individuals had access to funds enabling them to engage in credit transactions in other circumstances as well. Institutions extended credit also, allowing the intermediaries to delay payments, sometimes for prolonged periods of time. Temple loans also are known. But the mass of our documentation comes from a private context.[39]

II. Self-Organized Popular Credit Systems in History.

Although the first recorded appearance of money and credit was as a unit of account by temple complexes, we're still left with the question of what, if anything, might have existed before.

Before the rise of market economies, there were gift economies sometimes

39Mieroop, "A History of Near Eastern Debt?" pp. 69-70.

involving symbolic tokens of wealth. Hudson cites Graeber to the effect that

> "Rather than being employed to acquire things…," gift exchange and similar reciprocity debts "are mainly used to rearrange relations between people. Above all, to arrange marriages and to settle disputes." Delay in reciprocating such obligations is not usurious or socially divisive. "When reciprocity is delayed," another anthropologist explains, "as it is in the ceremonial kula trade of the Trobriand Islands … an umbrella of peace is created to enable ordinarily hostile people to engage in utilitarian trade while they wait for ceremonial gifts to be reciprocated the following year."[40]
>
> Anthropologists have documented how tribal communities create webs of gift exchange that bind families to each other, such as bride price owed to inlaws. Also prevalent are wergild-type compensation to heal breaches of the peace when injuries are inflicted, typically with collection procedures to ensure payment. The great question that prehistorians must answer is how such interpersonal debt practices, which originally must have been socially integrating, ended up reducing debtors to a state of dependency and bondage by classical antiquity….
>
> Being needy was natural enough for many families, but one's clan and neighbors normally provided mutual aid. A reciprocating gift was appropriate at some point, but there was not yet a formal compulsion to do so — to say nothing of paying interest. Exploitation forcing families into dependency, especially to pledge land for debt and forfeit it to moneylenders irreversibly, became the norm only relatively late in history.[41]

And as the above reference to wergild indicates, debt as it appeared in pre-market societies was aimed not at facilitating production or consumption, but at healing social breaches and keeping the peace.

> Anthropologists have shown how omnipresent the debt phenomenon is. Wergild-type compensation debts to heal breaches of the peace caused by manslaughter and other personal injury probably extend back to the origins of civilization, and webs of mutual aid must have developed even prior to the Neolithic. Such obligations survive in modern social interaction among friends, family members and neighbors, and as "debts to society" to make restitution for having caused injury. These kinds of debt are payable, and help bind society together, not polarize it. There is no strictly economic basis for charging interest on them, as they are not commercial in character.[42]

So these societies were, essentially, non-monetary.

Although thinkers like Graeber, Hudson, and Wray, all agree that money had its

40 Hudson, *And Forgive Them Their Debts*, p. 80.

41 *Ibid.*, p. 79.

42 Hudson, "Reconstructing the Origins of Interest-Bearing Debt and the Logic of Clean Slates," p. 9.

origins as an accounting device, that still leaves open the question of how early it appeared.

Hudson and Wray argue that it first appeared in royal or temple economies because, owing to the necessary implication of inequality entailed by debt, it could only have arisen in class stratified societies. As John F. Henry elaborates:

> Such theories [in which money is "a unit of account in which obligations are both created and extinguished"] necessarily connote (or at least imply) some underlying inequality, as those who claim obligations must be in a superior position to those who are obligated to the former. Otherwise, there would be no social reason to fulfil said obligations or any mechanism to enforce payment.[43]
>
> In this society [one without privilege or superior-inferior relations], there could be no debt. For every debtor there must be a creditor, and such a relationship is one of inequality with creditors having economic power over debtors. Such an arrangement runs counter to the rule of hospitality, violating the right of some — debtors — to subsistence. True, tribal members were placed under various obligations — they must contribute to production, provide for the well-being of their members, etc. — and debt is an obligation. But, such obligations were internal to the collective itself and of a reciprocal nature: all had obligations to all.[44]

This argument fails to take into account the possibility of debt-credit relations in which social equals run ongoing accounting balances with one another, with their economic interactions involving the constant creation of credits and debits by both parties.

There is evidence that the conceptual boundary between gift economies and exchange, with the former focused on giving away wealth in order to establish social position rather than to accumulate wealth or coordinate economic activity, is not so distinct after all. David Graeber and David Wengrow noted the widespread existence in non-state societies of reciprocal gift economies, and their likely evolution into something like credit systems with at least crude notions of equivalency accounting. These elements in reciprocal gift economies foreshadowed, and might have evolved into, true (if crude) credit accounting. In the recorded instances of non-state and non-capitalist societies that managed to escape subordination to national governments or colonial empires until the late 19th century or after, gift economies functioning as systems of quasi-exchange and -credit, with quantitative valuation of a sort, have been shown to persist widely around the world almost up to the present day.

43Henry, "The Social Origins of Money," p. 79.
44*Ibid.*, p. 84.

Even Hudson notes that various goods served as denominators of value for gifting reciprocity and the assessment of blood debt. For example, wergild and other debts or fines were commonly measured in cattle, although they were far too large a unit for tracking the much smaller obligations in reciprocal mutual aid relationships. Smaller standardized contributions emerged for public festivals and similar occasions, and all these things between them may have "helped pave the way for a pecuniary mentality, and hence in time for monetizing exchange and credit."[45] That raises the question: Could the idea of some particular "universal commodity" emerge, as a pure unit of measure or denominator of value, before the rise of class stratification or palace and temple economies? If mutual accounting of debt, or the use of numerical accounting units to coordinate economic activity, took place — a question we examine below — then there would have been no need for a "dual coincidence of wants" problem to arise. The value of a cow, a measure of grain, etc., might have been taken as a standard unit of account by which the values of other goods and services were measured in quantitative terms, without any actual cattle or grain being physically present at any point.

Graeber and Wengrow provide evidence from both the Near East and the Andes suggesting that complex accounting in uniform numerical units did, in fact, long predate city-states and temples; and that it was developed, not simply to calculate ceremonial obligations, but as village credit systems to aid in coordinating economic activity in a manner that foreshadowed medieval European villages.

> Our emerging archaeological understanding suggests that the first systems of specialized administrative control actually emerged in very small communities. The earliest clear evidence of this appears in a series of tiny prehistoric settlements in the Middle East, dating over 1,000 years after the Neolithic site of Çatalhöyük was founded (at around 7400 BC), but still more than 2,000 years before the appearance of anything even vaguely resembling a city.
>
> The best example of such a site is Tell Sabi Abyad, investigated by a team of Dutch archaeologists working in Syria's Balikh valley in the province of Raqqa. Around 8,000 years ago (c.6200 BC), in what was prehistoric Mesopotamia, a one-hectare village was destroyed there by fire, baking its mud walls and many of their clay contents, thus preserving them…. What the excavators discovered is that not only did the inhabitants of this village erect central storage facilities, including granaries and warehouses; they also employed administrative devices of some complexity to keep track of what was in them. These devices included economic archives, which were miniature precursors to the temple archives at Uruk and other later Mesopotamian cities.

45Hudson, *And Forgive Them Their Debts*, p. 88.

These were not written archives: writing, as such, would not appear for another 3,000 years. What did exist were geometric tokens made of clay, of a sort that appear to have been used in many similar Neolithic villages, most likely to keep track of the allocation of particular resources. At Tell Sabi Abyad, miniature seals bearing engraved designs were used alongside them to stamp and mark the clay stoppers of household vessels with identifying signs. Perhaps most remarkably, the stoppers themselves, once removed from the vessels, were kept and archived in a special building – an office or bureau of sorts – near the centre of the village for later reference. Ever since these discoveries were reported in the 1990s, archaeologists have been debating in whose interests and for what purpose such 'village bureaucracies' functioned.

In trying to answer this question, it's important to note that the central bureau and depot of Tell Sabi Abyad is not associated with any kind of unusually large residence, rich burials or other signs of personal status. If anything, what's striking about the remains of this community is their uniformity: the surrounding dwellings, for instance, are all roughly equal in size, quality and surviving contents. The contents themselves suggest small family units which maintained a complex division of labour, often including tasks that would have required the co-operation of multiple households. Flocks had to be pastured, a variety of cereal crops sown, harvested and threshed, as well as flax for weaving, which was practised alongside other household crafts such as potting, bead-making, stone-carving and simple forms of metalworking. And of course there were children to raise, old people to care for, houses to build and maintain, marriages and funerals to co-ordinate, and so on.

Careful scheduling and mutual aid would have been vital for the successful completion of an annual round of productive activities, while evidence of obsidian, metals and exotic pigments indicates that villagers also interacted regularly with outsiders, no doubt through intermarriage as well as travel and trade.[46]

* * *

To get a sense of how such small-scale bureaucracies might have worked in practice we can briefly consider again the *ayllu*, those Andean village associations which… had their own home-grown administration.

Ayllu too were based on a strong principle of equality; their members literally wore uniforms, with each valley having its own traditional design of

46David Graeber and David Wengrow, *The Dawn of Everything: A New History of Humanity* (Allen Lane, 2021), pp. 423-424. Pagination from pdf version hosted at Library Genesis <https://library.lol/main/EDB306E1DD2E3A9287EB3B13BE64309F>.

cloth. One of the *ayllu*'s main functions was to redistribute agricultural land as families grew larger or smaller, to ensure none grew richer than any other — indeed, to be a 'rich' household meant, in practice, to have a large number of unmarried children, hence much land, since there was no other basis for comparing wealth. *Ayllu* also helped families avoid seasonal labour crunches and kept track of the number of able-bodied young men and women in each household, so as to ensure not only that none were short-handed at critical moments, but also that the aged or infirm, widows, orphans or disabled were taken care of.

Between households, responsibilities came down to a principle of reciprocity: records were kept and at the end of each year all outstanding credits and debts were to be cancelled out. This is where the 'village bureaucracy' comes in. To do that meant units of work had to be measured in a way which allowed clear resolution to the inevitable arguments that crop up in such situations – about who did what for whom, and who owed what to whom. Each *ayllu* appears to have had its own *khipu* strings, which were constantly knotted and re-knotted to keep track as debts were registered or cancelled out. It's possible that *khipu* were invented for such purposes. In other words, although the actual administrative tools used were different, the reason for their existence was quite similar to what we envisage for the village accounting systems in prehistoric Mesopotamia, and rooted in a similarly explicit ideal of equality….

Under the Inca…, all *ayllus* were reduced to the status of 'conquered women' and *khipu* strings were employed to keep track of labour debts owed to the central Inca administration. Unlike the local string records, these were fixed and non-negotiable; the knots were never unravelled and retied. Here it is necessary to overcome a few myths about the Inca, who are often portrayed as the mildest of empires — even a kind of benevolent proto-socialist state. In fact, it was the pre-existing *ayllu* system that continued to provide social security under Inca rule. By contrast, the overarching administrative structure put in place by the Inca court was largely extractive and exploitative in nature (even if local officers of the court preferred to misrepresent it as an extension of *ayllu* principles)...[47]

The development of credit and money systems in ancient times, and the question of whether they predated states and large institutions, is necessarily speculative. "To be sure," as Wray and Éric Tymoigne note,

> we will never "know" the origins of money. First, the origins are lost "in the mists of time" — almost certainly in pre-historic time. It has long been

47 *Ibid.*, p. 426.

> speculated that money predates writing because the earliest examples of writing appear to be records of monetary debts — hence, we are not likely to uncover written records of money's "discovery".[48]

But we have much more definite knowledge of the existence of informal, horizontal, and self-organized local credit/money systems in the period between the collapse of Axial Age money and banking systems, and the reappearance of such systems in modern times. For example, Graeber refers to open-tab mutual credit-clearing systems were common in medieval European villages before the rise of modern money and banking systems.

In medieval times, we see village-based credit systems existing mainly in environments where specie did not exist, and villagers needed a unit of account for tracking running balances with their peers in order to facilitate trade. Although true barter — i.e., crude exchange in kind with no sophisticated numerical unit of account — was a theoretical possibility, the normal approach (Graeber writes) "is to adopt some sort of credit system. When much of Europe 'reverted to barter' after the collapse of the Roman Empire, and then again after the Carolingian Empire likewise fell apart, this seems to be what happened."[49] And, note, the "reversion to barter" was actually a credit system with pricing in monetary units. "People continued keeping accounts in the old imperial currency even if they were no longer using coins."[50]

This was true of the "Dark Ages" following the fall of Rome, when people abandoned the use of cash but not money: "everyone continued to assess the value of tools and livestock in the old Roman currency, even if the coins themselves had ceased to circulate."[51] And it was equally true of the period following the collapse of the Carolingian Empire, when people continued using Carolingian denominations of "pounds shillings and pence (or livres, deniers, and sous), despite the fact that for most of that period, actual coins were entirely different, or simply didn't exist."[52]

This reference to the use of Carolingian denominations as units of account is based on Luigi Einaudi's historical account of the concept of "ghost money." As Geoffrey Ingham summarizes it:

> In order to establish a degree of fiscal coherence across his loosely integrated jurisdiction of the Holy Roman Empire, Charlemagne (768–814) decreed a common money of account, derived from the Roman system. In this there were 240 pence (*denari*) to the pound (*libra*) of silver which, in

48 Tymoigne and Wray, *Money: An Alternative Story*.
49 Graeber, *Debt*, p. 37.
50 *Ibid.*, p. 37.
51 *Ibid.*, p. 45.
52 *Ibid.*, p. 395n.

turn, was divided into 20 shillings (*solidi*). Two features should be noted. First, only the silver pennies were extensively minted. Second, they were of differing weight and fineness. The money of account, based on pounds, shillings and pence, did not necessarily correspond to any of the actual minted coins that remained in use. The two primary functions of money [unit of account and means of payment], integrated by Roman coinage in a single object, had became [sic] disconnected…. The measure of value was a pure abstraction for accounting for transactions in which payment could also be made in kind, or in the freely circulating coins from the different jurisdictions that were integrated by the abstract money of account. This state of affairs prevailed across the whole of mediaeval Europe and persisted as routine practice in some parts until the late eighteenth century. The dislocation of money of account and precious metal coinage means of payment fostered a consciousness of money as 'dematerialised', or abstract value….[53]

The distinction, as Wray explains it, is one between "money" and "assets denominated in the money of account."

Einaudi offered a detailed examination of the history of a concept variously termed "imaginary money," "ideal money," "political money," "moneta numeraria," or "ghost money." He traces this concept from the sixteenth century through the eighteenth century…. An "imaginary money" is a money of account, commonly called a "pound" throughout Europe, which never changes much in value. Einaudi argues this money of account "grew almost spontaneously out of men's habit of keeping accounts in monetary units." As the ghost money frequently remained uncoined, it certainly could not fulfill that function of money orthodoxy takes as paramount: medium of exchange. Instead, the ghost money was the unit of account, the social measure of economic value, the unit in which debts were measured, and the unit in which exchange rates of all media of exchange were calculated.[54]

Before the French Revolution, Einaudi wrote, the popular understanding of money was based on

the distinction between a monetary unit used as a standard of value and of deferred payments and another monetary unit used as a medium of exchange.

11. There was, then, a monetary unit used only as a standard of deferred payments (promises to pay) or for the purpose of keeping accounts. This was the function of a money of account, an imaginary or ideal money. The public

53Geoffrey Ingham, "The Emergence of Capitalist Credit Money," in Wray, ed., *Credit and State Theories of Money*, p. 189.

54Wray, *Introduction to an Alternative History of Money*, p. 15.

made contracts, kept books, established mortgages, or stipulated rents in pounds, shillings, and pence….

Although it was possible to make contracts or to keep accounts in imaginary money — that is, in pounds, shillings, and pence — it was impossible to make actual payments in these monetary units, since they had not been coined for several centuries. Payment was made in real currency, that is, in… coins.[55]

As Ingham elaborates, "the 'imaginary money' was invariable in that people continued to count in these ratios long after the debasement, clipping or deterioration of the actual coinage."

By the late seventeenth century, minted pound coins weighed only 7 penny weights of silver, not the 240 of the money of account; that is to say, 3 per cent of its abstract ratio…. Thus, by the late Middle Ages, when people priced, they had in mind not coins, but commodities and obligations denominated in money of account.[56]

Graeber describes, at length, the functioning of everyday economic life in 16th and 17th century village economies. Outside cities and large towns,

those frequenting the local butcher, baker, or shoemaker would simply put things on the tab. The same was true of those attending weekly markets, or selling neighbors milk or cheese or candle-wax. In a typical village, the only people likely to pay cash were passing travelers, and those considered riff-raff: paupers and ne'er-do-wells so notoriously down on their luck that no one would extend credit to them. Since everyone was involved in selling something, however just about everyone was both creditor and debtor; most family income took the form of promises from other families; everyone knew and kept count of what their neighbors owed one another; and every six months or year or so, communities would hold a general public "reckoning," cancelling debts out against each other in a great circle, with only those differences then remaining when all was done being settled by use of coin or goods.

The reason that this upends our assumptions is that we're used to blaming the rise of capitalism on something vaguely called "the market" — the breakup of older systems of mutual aid and solidarity, and the creation of a world of cold calculation, where everything had its price. Really, English villagers appear to have seen no contradiction between the two. On the one hand, they believed strongly in the collective stewardship of fields, streams, and forests, and the need to help neighbors in difficulty. On the other hand,

55Luigi Einaudi, "The Theory of Imaginary Money from Charlemagne to the French Revolution," in F. C. Lane and J. C. Riemersma, eds., *Enterprise and Secular Change* (London: Allen & Unwin, 1953), pp. 235-236.
56*Ibid.*, pp. 189-190.

> markets were seen as a kind of attenuated version of the same principle, since they were entirely founded on trust. …[Much like contemporary participants in gift economies in the Global South], neighbors assumed they ought to be constantly slightly in debt to one another. At the same time, most seem to have been quite comfortable with the idea of buying and selling, or even with market fluctuations, provided it didn't get to the point of threatening honest families' livelihoods.[57]

Fayazmanesh challenges, based on historical evidence from actual medieval barter, the argument that "double coincidence of wants" in barter somehow necessitates commodity money as a means of payment. In medieval times, even when merchants bartered one good directly for another (e.g. cloth for wool) rather than selling either for money, they still established the ratios by reference to money as the unit of account.[58] The difficulties of barter which supposedly gave rise to money, he wrote, "appear to exist only in the minds of the Aristotelian medievalists," and presented no such difficulties to the merchants in medieval markets.[59] And "the exchange of 'ware for ware'" was not a problem even with "complicated numbers," because "all barter values are expressed in terms of money of account."[60] The existence of a unit of account distinct from other functions of money meant that "in reality barter can be conducted on the basis of a ghost money, a unit of account based on non-existing real coins. In other words, the mere existence of a fictitious unit of account can prevent the emergence of the complication of keeping track of a large number of exchange ratios."[61] Further, he writes, "we do not know of any economy in which systematic barter takes place without the presence of money" (in the sense of unit of account).[62]

Such village gift economies and credit systems — the ones recorded in European villages, and the ones observed by anthropologists today — are typically non-usurious. Hudson writes: "The characteristic Indo-European terms for debt among peers have more to do with parity and mutuality (as in Latin *mutuum*, a non-interest-bearing loan) than with interest-bearing obligations."[63]

We can speculate on the possibility, in an alternate timeline, that local credit-based money systems might have served to facilitate exchange on regional, national, and larger scales through federation. But the rise of the absolute state meant the rise, along with it, of national money economies in which states' legal tender preempted and crowded out such local systems.

57 Graeber, *Debt*, pp. 327-328.
58 Fayazmanesh, *Money and Exchange*, p. 33.
59 *Ibid.*, pp. 39-40.
60 *Ibid.*, p. 40.
61 *Ibid.*, p. 40.
62 *Ibid.*, p. 87.
63 Hudson, *And Forgive Them Their Debts*, p. 82.

III. Modern Money and Banking, and Destruction of Alternatives

We have seen that local, democratically managed credit systems emerged in the vacuum following the collapse of state money systems in the Middle Ages. But these local credit systems, autonomously enforced and based on conviviality and mutual aid, were gradually suppressed, crowded out, or coopted by the emerging capitalist banking system under the modern state. Even so, it was a slow process.

> The story of the origins of capitalism, then, is not the story of the gradual destruction of traditional communities by the impersonal power of the

market. It is, rather, the story of how an economy of credit was converted into an economy of interest; of the gradual transformation of moral networks by the intrusion of the impersonal — and often vindictive — power of the state. English villagers in Elizabethan or Stuart times did not like to appeal to the justice system, even when the law was in their favor — partly on the principle that neighbors should work things out with one another, but mainly, because the law was so extraordinarily harsh….

[Under] debt law, ..debts could often, if the creditor was sufficiently vindictive, be treated as a crime….

Obviously, it was the rare shopkeeper who wished to see even his most irritating client on the gallows. Therefore decent people tended to avoid the courts entirely. One of the most interesting discoveries of Craig Muldrew's research is that the more time passed, the less true this became.

Even in the late Middle Ages, in the case of really large loans, it was not unusual for creditors to lodge claims in local courts — but this was really just a way of ensuring that there was a public record (remember that most people at the time were illiterate) . Debtors were willing to go along with the proceedings in part, it would seem, because if there was any interest being charged, it meant that if they did default, the lender was just as guilty in the eyes of the law as they were. Less than one-percent of these cases were ever brought to judgment. The legalization of interest began to change the nature of the playing field. In the 1580s, when interest-bearing loans began to become common between villagers, creditors also began to insist on the use of signed, legal bonds; this led to such an explosion of appeals to the courts that in many small towns, almost every household seemed to be caught up in debt litigation of some sort or other. Only a tiny proportion of these suits were ever brought to judgment, either: the usual expedient was still to rely on the simple threat of punishment to encourage debtors to settle out of court. Still, as a result, the fear of debtor's prison — or worse — came to hang over everyone, and sociability itself came to take on the color of crime.[64]

The modern system based on specie-convertible currency and credit backed by cash reserves was almost entirely a creation of modern states and a reflection of their ideology.

One reason that historians took so long to notice the elaborate popular-credit systems of Tudor and Stuart England is that intellectuals of the time spoke about money in the abstract; they rarely mentioned it. For the educated classes, "money" soon came to mean gold and silver. Most wrote as if it could be taken for granted that gold and silver had always been used

64Graeber, *Debt*, pp. 332-334.

as money for all nations in history and, presumably, always would be….

…Most… didn't feel that much explanation was required; the intrinsic value of precious metals was simply self-evident. As a result, when royal advisors or London pamphleteers discussed economic problems, the issues they debated were always the same: How do we keep bullion from leaving the country? What do we do about the crippling shortage of coin? For most, questions like "How do we maintain trust in local credit systems?" simply did not arise.

This was even more extreme in Britain than on the Continent, where "crying up" or "crying down" the currency was still an option. In Britain, after a disastrous attempt at devaluation under the Tudors, such expedients were abandoned. Henceforth, debasement became a moral issue. For the government to mix base metal into the pure eternal substance of a coin was clearly wrong. So, to a lesser extent, was coin-clipping, a near-universal practice in England, which might be thought of as a kind of popular version of devaluation, since it involved secretly shaving silver off the edges of coins and then pressing them down so they seemed like they were still the original size.

What's more, those new forms of virtual money that began to emerge in the new age were firmly rooted in these same assumptions. This is critical, because it helps explain what might otherwise seem a bizarre contradiction: How is it that this age of ruthless materialism, in which the notion that money was a social convention was definitively rejected, also saw the rise of paper money, along with a whole host of new credit instruments and forms of financial abstraction that have become so typical of modern capitalism?[65]

Despite the emergence of such forms of virtual money, “it quickly becomes clear that all of these new forms of money in no way undermined the assumption that money was founded on the ‘intrinsic’ value of gold and silver”:

in fact, they reinforced it. What seems to have happened is that, once credit became unlatched from real relations of trust between individuals (whether merchants or villagers), it became apparent that money could, in effect, be produced simply by saying it was there; but that, when this is done in the amoral world of a competitive marketplace, it would almost inevitably lead to scams and confidence games of every sort — causing the guardians of the system to periodically panic, and seek new ways to latch the value of the various forms of paper back onto gold and silver.[66]

Thus the intrinsic value of precious metals, and the immorality of money or credit not backed by them, became an officially enforced state ideology.

65*Ibid.*, pp. 336-337.
66*Ibid.*, p. 337.

Nevertheless, even in early modern times, the "ghost money" which served as a unit of account was logically prior to specie and other means of payment, and they were derivative of it. For states, as for participants in village credit systems, money was fundamentally a unit of account for denominating debt.

> Money, recorded as a debt denominated in a unit of account, would be created as part of a forward debt contract. Money acting as a medium of exchange or means of payment would take a physical form (wheat or barley, and later, clay tablets, wooden tally sticks, metal coins, or paper IOUs), denominated in terms of the idealized money of account.[67]

States resorted to physical means of payment denominated in the unit of account only secondarily to the unit of account itself, to remedy the lack of trust. As Wray writes:

> With the notable exception of the stronger Italian city states, European governments often had to borrow from banks — due to numerous defaults on their own liabilities, governments were not trusted by the population. Hence, during the period that we analyze here, these states could not always rely on the ability to issue money-denominated IOUs to finance spending. While it is still true that governments mostly spent by issuing such IOUs (often in the form of tally sticks), they periodically and even chronically faced financial constraints that were relieved by issuing IOUs directly to banks, which then intermediated by issuing bank IOUs to finance the crown's spending. Hence the story of money in this period cannot be told without substantial focus on the private credit system.[68]

Wray goes on to explain, at much greater length, the rise of convertible means of payment as a form of insurance against default on debts originally incurred in simple money of account.

> As the money of account represents the terms in which promises to repay or to engage in exchange are denominated, anyone can create money, so long as one's liabilities are accepted by a counter-party who is a willing participant in a forward contract. Thus, by creating money, one may "spend now, pay later," that is, one may receive something today merely on the promise to deliver "money" tomorrow. The "money" to be delivered tomorrow will take the form of a money-denominated means of payment; it can be obtained by exchange in the market. While the earliest "private" monetary liabilities were merely two-party contracts, gradually, privately created liabilities (denominated in the wheat money of account) began to circulate and function as media of exchange and as means of payment.[69]

67 Wray, *Introduction to an Alternative History of Money*, p. 20.
68 *Ibid.*, p. 28.
69 *Ibid.*, pp. 29-30.

Convertibility only emerged after the fact, as a response to the risk — especially outside local trust networks — of default.

> This brings us to the primary problem of a privately created money-denominated liability when it is used as a means of payment, medium of exchange, or store of wealth: its issuer might default. To further increase the circulation of private IOUs, these would be made convertible under specified conditions into other media of exchange. Thus, the early private liabilities, written in terms of the wheat unit of account, would be made convertible into wheat. Later, these would be made convertible into the IOUs issued by temples, palaces, or states. Finally, after the development of stamped coins or other easily recognized IOUs of the state, private liabilities could be made convertible into currency. At all stages, however, private liabilities were also made convertible into other private liabilities — normally into those issued by relatively more credit worthy individuals and institutions.
>
> With the development of precious metal coins, we finally arrive at the "goldsmith" stage, at which orthodox theory begins, with a commodity money (gold) that is deposited with the goldsmith, who discovers the "deposit expansion process." Actually, the process worked in reverse. A money coin could not have developed before the development of a money of account. The private liabilities created in money contracts have circulated before and concurrently with currency — such as stamped precious metal coins — as media of exchange and means of payment. The precious metal coin is developed for technical and perhaps political reasons, but becomes the reserve money because private credit money is subject to default risk, and exchange rate risk. (That is, the holder of private credit money faces the risk that the value of this money will fall relative to the money of account….) It is not that deposits of a precious metal commodity allow banks to create loans and credit money; rather, loans and credit money generate a desire to hold small reserves of coined metallic money in order to ensure convertibility.
>
> But, gold, and so on, is not money, nor has it ever been money. Money is the socially determined unit of account, but all privately issued money-denominated liabilities expose their holder to at least some risk, and to make this risk palatable, credit money is made convertible into other forms of money-denominated assets. The modern state's currency is the risk-free representation of the social measure of value; as such, it is chosen as the "ultimate" backing for credit money.[70]

Thus the state advanced and reinforced the conception of private credit as something "backed" by cash reserves, thereby playing a major role in creating the

70 *Ibid.*, pp. 30-32.

goldsmith banking model which mainstream economic historians treat as a spontaneous development. So in a real sense, the goldsmith banking model was a result of the state-supported fiction that "real money" was gold and silver.

After reiterating the likelihood that "the 'gold standard' was in part adopted to reduce fear of government default," Wray continues:

> Even on the gold standard, governments usually issued "fiat" coins: these were coins whose embodied precious metal was less than the promised value in terms of the unit of account. In reality, such coins were nothing more than government debt — an IOU stamped on gold. (In this case, the coin really was no different than the paper used to register forward contracts; the coins were merely the physical evidence of debt contracts.[71]

Geoffrey Ingham, like Wray, stresses that even under the so-called gold standard, government coins were fiat money whose face value served simply as a token of real money — money of account — and bore little relation to the value of the specie composing it.

At a later stage, the original Carolingian unit of account of pounds, shillings and pence and coinage was integrated from time to time in actual coins struck by the more powerful kingdoms….

> As the myriad political jurisdictions grew stronger during the twelfth and thirteenth centuries, the most powerful asserted their sovereignty by proclaiming their own moneys of account, most of which were variants of the Carolingian pounds, shillings and pence.... These were not only used to denominate local coins, but also to impose an exchange value on the 'foreign' coins that circulated freely across the imprecise and permeable territorial boundaries….
>
> Coins had multiple values, one of which was declared in the state of issue, and also others, expressed in the money of account of the zone of sovereignty in which it happened to be circulating at the time. The exchange relations between the values were purely abstract monetary relations in the sense that the money of account, not their metallic content, determined the relative values of coined money. In other words, coins and… credit instruments such as bills of exchange were all established, as money, by moneys of account. In short, the various media of exchange and payment became money by being counted — not weighed, or otherwise assayed as a valuable commodity….
>
> The separation of moneys of account from means of payment and the free circulation of coins with multiple territorially determined values had two important implications for the development of modern capitalist banking and its distinctive forms of money. First, the circulation of coins outside their

71 *Ibid.*, p. 32.

> jurisdiction of issue increased the need for moneychangers whose activities eventually provided the basis for the recrudescence of deposit banking. Second, and more importantly, these particular circumstances of anarchic coinage and increasingly long-range trade provided the stimulus for the development of the bill of exchange into a form of transnational private money denominated in an agreed money of account. Eventually, when advantages of the new forms of money had become obvious and irresistible, where states were strong enough to enforce the transferability of debt, capitalist credit money came into being.[72]

Following a discussion of the banks lending money to the English monarchy, and the royal debt circulating as money, Graeber asks why in that case it was necessary to collect taxes at all. If specie-money emerged spontaneously as a "universal commodity," why not simply seize all the gold and silver mines and issue the money to pay expenses? The answer is that, because specie-money and markets based on them do *not* in fact emerge spontaneously, issuing specie-money and then collecting taxes in them is "the simplest and most efficient way to bring markets into being."[73]

> …[If a king] simply hands out coins to the soldiers and then demands that every family in the kingdom was obliged to pay one of those coins back to you, one would, in one blow, turn one's entire national economy into a vast machine for the provisioning of soldiers, since now every family, in order to get their hands on the coins, must find some way to contribute to the general effort to provide soldiers with things they want. Markets are brought into existence as a side effect….
>
> …[O]ne of the first things that the French general Gallieni, conqueror of Madagascar, did when the conquest of the island was complete in 1901 was to impose a head tax. Not only was this tax quite high, it was also only payable in newly issued Malagasy francs. In other words, Gallieni did indeed print money and then demand that everyone in the country give some of that money back to him.
>
> Most striking of all, though, was language he used to describe this tax. It was referred to as the "*impôt moralisateur*," the "educational" or " moralizing tax." In other words, it was designed — to adopt the language of the day — to teach the natives the value of work. Since the "educational tax" came due shortly after harvest time, the easiest way for farmers to pay it was to sell a portion of their rice crop to the Chinese or Indian merchants who soon installed themselves in small towns across the country. However, harvest was when the market price of rice was, for obvious reasons, at its

72 Ingham, "The Emergence of Capitalist Credit Money," pp. 190-191.
73 Graeber, *Debt*, p. 49.

> lowest; if one sold too much of one's crop, that meant one would not have enough left to feed one's family for the entire year, and thus be forced to buy one's own rice back, on credit, from those same merchants later in the year when prices were much higher. As a result, farmers quickly fell hopelessly into debt (the merchants doubling as loan sharks). The easiest ways to pay back the debt was either to find some kind of cash crop to sell — to start growing coffee, or pineapples — or else to send one's children off to work for wages in the city, or on one of the plantations that French colonists were establishing across the island. The whole project might seem no more than a cynical scheme to squeeze cheap labor out of the peasantry, and it was that, but it was also something more. The colonial government was were also quite explicit (at least in their own internal policy documents), about the need to make sure that peasants had at least some money of their own left over, and to ensure that they became accustomed to the minor luxuries — parasols, lipstick, cookies — available at the Chinese shops. It was crucial that they develop new tastes, habits, and expectations; that they lay the foundations of a consumer demand that would endure long after the conquerors had left, and keep Madagascar forever tied to France.[74]

This was the case going back to ancient times, according to Glyn Davies, with Alexander and Caesar's use of coins to pay their troops doing far more than trade to expand the popular use of coinage.[75] Yves Smith, likewise, considered the collection of taxes, following the payment of troops in coinage, to be "key to creating the first markets that operate on cash,"

> since coinage seems to be invented or at least widely popularized to pay soldiers — more or less simultaneously in China, India, and the Mediterranean, where governments find the easiest way to provision the troops is to issue them standard-issue bits of gold or silver and then demand everyone else in the kingdom give them one of those coins back again.[76]

74*Ibid.*, pp. 49-51.
75Glyn Davies, *A History of Money: From Ancient Times to the Present Day* (Cardiff: University of Wales Press, 2002), pp. 109, 115.
76Smith, "What is Debt?"

IV. The Toxic Effects of Scarcity-Based Money and Credit

Is the structure of the money and credit system neutral, or does it affect the distribution of resources within the "real economy"? Schumpeter classified responses to this question into two categories: "real analysis," and "monetary analysis."

> Real Analysis proceeds from the principle that all the essential phenomena of economic life are capable of being described in terms of goods and services, of decisions about them, and of relations between them. Money enters the picture only in the modest role of a technical device that has been adopted in order to facilitate transactions. This device can no doubt get out of order, and if it does it will indeed produce phenomena that are

> specifically attributable to its *modus operandi*. But so long as it functions normally, it does not affect the economic process, which behaves in the same way as it would in a barter economy…. Thus, money has been called a 'garb' or 'veil' of the things that really matter…. Not only can it be discarded whenever we are analyzing the fundamental features of the economic process but it *must* be discarded just as a veil must be drawn aside if we are to see the face behind it. Accordingly, money prices must give way to the exchange ratios between the commodities that are the really important thing 'behind' money prices; income formation must be looked upon as an exchange of, say, labor and physical means of subsistence; saving and investment must be interpreted to mean saving of some real factors of production and their conversion into real capital goods, such as buildings, machines, raw materials; and, though 'in the form of money,' it is these physical capital goods that are 'really' lent when an industrial borrower arranges for a loan.[77]

Monetary analysis denies this contention, seeing "any obstruction to the even flow of [income] streams" as the source of economic disturbances.

> The way in which households and firms handle their money and react to monetary magnitudes will thus acquire importance independently of the commodity aspect of their actions. In particular, we may be led to attach more importance to people's 'making full use of the income they receive from firms,' that is, to their spending it promptly on products of these firms than to the commodities they acquire in so doing and the prices at which they acquire them. By the same token, we may be led to identify Saving with obstruction to that flow of expenditure and, in the limiting case, to see it in the role of economic Disturber General.[78]

And in fact, we see that the distortions created by the money and credit systems are massive. Charles Eisenstein compares money's role in the economy to an "animating force":

> In a recession, money disappears, and with it the animating force of the human realm. Machines stand idle. Factories grind to a halt; construction equipment sits derelict in the yard; parks and libraries close down; and millions go homeless and hungry while housing units stand vacant and food rots in the warehouses. Yet all the human and material inputs to build the houses, distribute the food, and run the factories still exist. It is rather something immaterial, that animating spirit, which has fled.[79]

77 Joseph A. Schumpeter, *History of Economic Analysis*. Edited from manuscript by Elizabeth Boody Schumpeter and with an Introduction by Mark Perlman (Routledge, 1954, 2006), p. 264.

78 *Ibid.*, p. 267.

79 Charles Eisenstein. *Sacred Economics: Money, Gift & Society in the Age of Transition* (Berkeley: North Atlantic Books, 2021), p. 14. Pagination is from pdf version hosted at Anna's Archive

The situation, when the animating force of money is gone, is as Will Ruddick describes it.

> Picture a community full of people who can cook, fix roofs, farm, teach, care for children, build furniture — who hold immense value in their hands and hearts. Yet those same people are unable to trade with one another. Why? Not because the skills are gone, or the needs aren't there. It's because we're all sitting in economic gridlock — waiting for more money to arrive so we can finally do what we already have the capacity to do.
>
> This is the everyday experience of millions. We have goods and services. We have time. We have energy. But we don't have the money to transact, to connect, to build. It's a strange condition — a wealth of ability stuck behind a lack of liquidity….
>
> This is the foundational gridlock of modern economics. It isn't about lack of productivity — it's about lack of flow.[80]

But the problem, as Ruddick also points out, is not the lack of money so much as a false, scarcity-based conception of money.

> …[W]e've become so dependent on money itself that we've forgotten we can pool resources and create mutual credit with one another. We no longer imagine that we can build trust, pool commitments, or value each other's labor directly….[81]

Karl Hess and David Morris illustrate, by reference to an analogy, the absurdity of saying it's impossible for willing producers, faced with willing consumers, to produce for exchange because "there's not enough money going around":

> Remember the Great Depression of the Thirties? One day there was a flourishing consumer economy, with everyone on the up-and-up; and the next: poverty, unemployment and breadlines. What happened? The physical resources of the country — the brain, brawn, and raw materials — were in no way depleted, but there was a sudden absence of money, a so-called financial slump. Complex reasons for this kind of disaster can be elaborated at lengths by experts in banking and high finance who cannot see the forest for the trees. But it was just as if someone had come to work on building a house and, on the morning of the Depression, that boss had to say, "Sorry, baby, but we can't build today. No inches." "Whaddya mean, no inches? We got wood. We got metal. We even got tape measures." "Yeah, but you don't

<https://annas-archive.org/md5/2dfd42ffb9583b262a0db9e4599418ab>.

80 Will Ruddick, "Unlocking Economic Gridlock: How Philanthropy Can Compost Money, Not Create More Dependence," *Grassroots Economist*, April 7, 2025 <https://willruddick.substack.com/p/unlocking-economic-gridlock>.

81 *Ibid*.

understand business. We been using too many inches, and there's just no more to go around."[82]

The root of the problem, in other words, is a model of money which assumes it must be stockpiled, like Hess and Morris's inches, before it can be spent or invested — when in fact it is a purely immaterial unit of measure whose purpose is to track the current and future commitment of resources.

As Michael Linton and Thomas Greco describe it, money is nothing but information:

> It generally seems to have escaped notice that money today is essentially a mere promise that value will be given. We are willing to trade in such promises when they derive from governments, one of the least reliable of institutions, but it seems that people are unwilling to go very far in trusting each other as individuals….
>
> It makes greater sense to base a money system on the promises of the individuals who make up the community itself and are the actual producers of value. The promise suggested is not the promise to repay cash to the community for goods received (we know that such promises are too dependent upon external circumstances beyond anyone's control to be reliable), but a promise to make some time or goods available at some future date, which is only jeopardized if the promiser is persistently unwilling or dead.[83]
>
> "Money," in short, "is an information system we use to deploy human effort."[84]

Greco restates elsewhere that money's "essence (at least in the ideal) is information," adding that "[a]s such, it is valueless in and of itself."[85] This last is key; there is no need for money to have any independent value as a commodity in its own right. It is nothing but a quantification of the exchange value of goods being transferred.

The money used to purchase something is a token entitling the seller to goods or services equal to a similar amount of value in the future — a tradeable IOU. The process can expanded from individual transfers to a common tracking system, with the balances of individual members tracked on a ledger. After restating the principle that money is an information system for deploying human effort, Greco writes:

82Karl Hess and David Morris, *Neighborhood Power: The New Localism* (Boston: Beacon Press, 1975), pp. 154-155.

83Michael Linton and Thomas Greco, Jr., "The Local Employment Trading System," *Whole Earth Review* 55 (Summer 1987), p. 106.

84*Ibid.*, p. 107.

85Thomas H. Greco, Jr., *Money and Debt: A Solution to the Global Crisis*. Second Edition. PDF edition laid out 2003 by Andrew Lowd (Tucson: Thomas H. Greco, Jr., 1990), p. 49.

> In… an ideal exchange system [i.e. abstract monetary system], all that is necessary is for traders to cooperate with one another in agreeing to accept an abstract form of payment in the form of credits issued by other traders as acknowledgment of value received. For example, suppose Mr. A buys a pair of shoes from Mr. B. He gives to B in return an "acknowledgment of value received" (AVR) or token money. B then buys some hay from C and passes on to him the AVR; C uses the AVR to buy some cordwood from D, and D in turn uses it to buy some chickens from A…. Actually, there might be any number of trades in this circle before the AVR gets back to Mr. A…. In practice, the token can be dispensed with and replaced with an account ledger in which each transaction would result in a credit to the seller and a debit to the buyer. It is this kind of pure information medium of exchange which constitutes the ideal money.[86]

E.C. Riegel, of whom Greco was a disciple, described a mutual credit system in similar terms:

> Let us assume that our hypothetical community of traders — finding the need for instrumenting their exchange with money instruments — hire a bookkeeper to keep track of their transactions. Each member of the exchange might receive some blank pieces of paper on which he directs the bookkeeper to debit his account, and credit the account of the seller, a specified number of money units or fractions. Nothing need be deposited with the bookkeeper to authorize such orders; and this implies that the traders would be authorized to start the exchange with a bookkeeping debit or over-draft. Let us pause now to realize that money can spring only from a debit and not from a credit….
>
> If we assume that in a trading day in the hypothetical exchange buyers issued checks in the sum of 950 units; and that each trader deposited his checks with the bookkeeper, the bookkeeper would have 950 units as a total bookkeeping entry but — let us also assume that as he entered them on the accounts of the traders, the offsets showed a net debit of only 50 units to the accounts of those who overbought and the same amount as credits to the accounts of those who underbought. Therefore the actual amount of money in existence at the end of clearance is only 50 units; whereas money transactions to the extent of 910 units have taken place. It is even conceivable that there might remain no debit balance; and hence no money whatever in existence in spite of a healthy money exchange. Money is created by the process of incurring a debit and is destroyed by the process of offsetting a debit.[87]

86*Ibid.*, p. 33.

87E. C. Riegel, *Private Enterprise Money: A Non-Political Money System* (1944). Hosted online by Community

After restating that money need be "based solely upon common acceptance without reserve for redemption,"[88] Riegel describes a mutual credit system as unilateral barter in which a good is traded for a claim on future goods.

> The spirit or purpose of money is to convert barter from a completed transaction into two halves — with one trader, (the buyer) receiving full satisfaction in value and the other (the seller) receiving the assurance of an equivalent value later from some trader. Thus simple barter, which is a bilateral transaction wherein both traders receive immediate satisfaction, gives way to money exchange, which is a unilateral transaction. A time lag intervenes before the seller receives satisfaction but he has the great advantage of choosing what he wants and from whom.[89]

Note that this is an almost exact description of the village mutual credit systems we saw Graeber discuss earlier in this chapter.

But the basic logic of our actual, scarcity-based money and credit system, under capitalism and the capitalist state, is just the opposite. Credit must be "backed" by reserves of stockpiled wealth, and credit and investment are therefore functions that can only be performed by those in possession of accumulated wealth.

Frederic Mishkin describes, from an approving standpoint, the state's regulatory entry barriers for performing the credit function:

> State banking and insurance commissions, as well as the Office of the Comptroller of the Currency (an agency of the federal government), have created tight regulations governing who is allowed to set up a financial intermediary. Individuals or groups that want to establish a financial intermediary, such as a bank or an insurance company, must obtain a charter from the state or the federal government. Only upstanding citizens with impeccable credentials *and a large amount of initial funds* will be given a charter [emphasis added].[90]

E.C. Riegel's description is virtually identical to Mishkin's in substantive terms, but with a more accurate spin:

> It permits money to be issued privately, only by a limited number of

Exchange <https://www.community-exchange.org/docs/Riegel/private_enterprise_money.pdf>, p. 52.

88*Ibid.*, p. 16.

89*Ibid.*, p. 16. Riegel suggests, as an aside, a new spin on the goldsmith-as-banker scenario in which goldsmith's inadvertently created genuine money when they realized they only had to possess sufficient reserves of specie to hedge against runs, and in practice could issue true money equal to many times the value of their specie reserves. And today, regressive thinkers still obsess over gold and sneer at what they call "fiat money" (when all money is fiat money), seeking to force the butterfly of money back into the cocoon of bilateral barter. *Ibid.*, pp. 16-17. This true money could have been issued, and served its necessary function as a unit of account, with no need for specie reserves at all. Instead, states imbued with buillonist ideology mandated the possession of a defined minimum of specie reserves, thus making the function of issuing money a monopoly privilege restricted to the possessors of accumulated wealth.

90Frederic S. Mishkin, *The Economics of Money, Banking, and Financial Markets*. Twelfth Edition (New York, NY: Pearson, 2013, 2016, 2019), pp. 43-44.

> persons and corporations who have bank credit, and makes such credit subject to fee. Thus it establishes credit as a privilege rather than a right, and makes it an object of profit rather than a utility to further the production and distribution of wealth. It denies to producers generally the right to issue money….[91]

The result, Greco argues, is that the credit function becomes the monopoly of licensed banks and of the Federal Reserve, which is a bank cartel.

> This medium of exchange, which the loan contract stipulates as the form of payment, cannot be grown on farms, it cannot be dug out of the ground, nor can it be produced in shops or factories. It cannot be produced by individuals, no matter how diligent their efforts or how great their skills. It can only be created by the Federal Reserve System and the banks, which have been given the "legal" monopoly over the creation of money.[92]

…just as, in the previous era lionized by hard-money libertarians of the right, the issue of money and credit was a function reserved to the possessors of reserves of precious metals.

If — as he stated above — exchange is simply unilateral barter, Riegel argued, regulating the issue of money makes no more sense than regulating the direct exchange of one good for another.

> It would be shocking to our sense of freedom if the government, or a creature of government, should try to make whole barter transactions subject to special permission. We would denounce it as intolerable tyranny. Why is it that we tolerate the idea that split barter can take place only when the trader holds a certificate (money) issued or authorized by government or a substitute certificate issued by a banker? Why is it that a whole barter transaction needs no license, while a half barter transaction requires it? Why is it that a shoe maker and a pants maker can exchange their products without interference, but if they wish to buy one another's products by means of money, they are subject to a veto power?[93]

So these unnecessary restrictions, irrelevant to the nature of money as such, amount to the imposition of artificial scarcity, which in turn is the source of unearned monopoly rents. Since credit is by nature the coordination of present with future production, and is simply lent into existence by banks at no cost to themselves, Greco argues, it is not in fact legitimate compensation for anything.

> What the bankers call "interest" cannot be justified as compensation for loss. Neither can it be justified as compensation for services rendered, since their costs in creating money/credit are slight in comparison to the rates

91 Riegel, *Private Enterprise Money*, p. 9.
92 Greco, *Money and Debt*, p. 15.
93 Riegel, *Private Enterprise Money*, p. 28.

charged. If not for their legalized monopoly, the banking cartel would not be able to sustain such high rates and competition would reduce bank profits to a reasonable fee for services.[94]

Charles Eisenstein compared Silvio Gesell's understanding of interest to Henry George's treatment of land rent, as an unearned return on scarcity.

> Controversial among progressives of his time, Henry George's insistence on taxing only land makes even less sense today because so many other commons have been brought into the realm of private property…. [The] "marketing of formerly inalienable properties" has gone far beyond land to encompass nearly everything essential to human existence and human joy. Our connections to nature, to culture, and to community have been riven, separated off, and sold back to us. I have so far focused on the land, but nearly every other commons has suffered the same fate. Intellectual property offers the most obvious example, and the royalties that derive from owning it play a role similar to land rent…. But there is one form of ownership that contains and supersedes the rest: the ownership of money. In the realm of finance, interest plays the role of royalties and rents, ensuring that the wealth that flows from human creativity and labor flows primarily to those who own money. Money is just as criminal in its origins as are other forms of property — an ongoing robbery that both impels and embodies the expropriation of the commons.[95]

Eisenstein's analogy between landlord rent and interest makes sense, because — under the capitalist system of money and credit that emerged in the modern era — the owner of stockpiled monetary wealth has a monopoly on the right to perform the credit function comparable to the legal authority of landlords legal to control the use of land to which they have absentee title.

Restricting the issuance of money and credit to those in possession of existing accumulated wealth distorts every aspect of the capitalist economic structure. In purely functional terms the economy consists entirely of streams of completed and partially completed goods between different groups of workers acting on nature. But privileged credit monopolists are able to preempt the channels through which these streams of goods flow, interpose themselves between various groups of producers, and claim a reward for "providing" capital and raw materials by virtue of their socially constructed claims on the right to direct resources. Thomas Hodgskin described the process two hundred years ago:

> Betwixt him who produces food and him who produces clothing, betwixt him who makes instruments and him who uses them, in steps the capitalist, who neither makes nor uses them, and appropriates to himself the produce of

94 Greco, *Money and Debt*, p. 14.
95 Eisenstein, *Sacred Economics*, p. 75.

> both. With as niggard a hand as possible he transfers to each a part of the produce of the other, keeping to himself the large share. Gradually and successively has he insinuated himself betwixt them, expanding in bulk as he has been nourished by their increasingly productive labours, and separating them so widely from each other that neither can see whence that supply is drawn which each receives through the capitalist. While he despoils both, so completely does he exclude one from the view of the other that both believe they are indebted him for subsistence….. Not only do [the middlemen] appropriate the produce of the labourer; but they have succeeded in persuading him that they are his benefactors and employers. At least such are the doctrines of political economy; and capitalist may well be pleased with a science which both justifies their claims and holds them up to our admiration, as the great means of civilising and improving the world.[96]

The overall effect, according to Greco, is that money "is misallocated at its source, going, not to those who are most in need or who will use it most effectively, but to political power centers and those who already control large pools of wealth…."[97] Although in functional terms the means of production and raw materials are advanced to workers by other workers, the legal restriction of the "investment" function to possessors of accumulated wealth means that most economic enterprises are owned by propertied classes distinct from those who work in them; workers, who lack such accumulated wealth, lack any property in the means of production they work. The entire economy is characterized by absentee ownership, by the payment of tribute for the right to make or do anything, and by consumer prices that reflect the embedded rents from such tribute.

According to John Curl, the growing capital-intensiveness of production, coupled with reliance on investment from capitalists — who were in fact "investing" wealth previously created by workers — was at the root of the factory system, and the main impediment to worker-owned alternatives. When production shifted from tools mostly owned by individual workers to machines that could only be paid for by one or more wealthy investors, absentee-owned factories became the norm. And attempts at organizing worker cooperatives, like those of the Knights of Labor, ran up against high capital outlays that were beyond their means.[98] If workers were able to control the credit mechanism by which various streams of capital goods and raw materials were advanced from one group of workers to

96 Thomas Hodgskin, "Labour Defended Against the Claims of Capital (1825)," Marxists.org <https://www.marxists.org/reference/subject/economics/hodgskin/labour-defended.htm>.

97 Thomas H. Greco, Jr., *New Money for Healthy Communities* (Tucson: Thomas H. Greco, Jr., 1994). Pagination from authorized Rat House Reality Press online pdf, hosted at Library Genesis: <https://books.ms/main/1C4D3BCA19CBE4D3F531C27C7AA05F3E>, p. 21.

98 John Curl, *For All the People: Uncovering the Hidden History of Cooperation, Cooperative Movements, and Communalism in America* (Oakland, CA: PM Press, 2009), pp. 4, 33-34, 107.

another, their artificial dependence on capitalist "investors" would end.

Embedded interest charges in consumer prices are considerable, according to Greco.

> Everybody pays the cost of interest, even those who do not borrow directly. Interest costs are included in the price of everything we buy, whether it is provided by the business sector or the government. The production of whatever we buy must be financed in some way, and interest is the cost of using financial capital. Margrit Kennedy gives some examples which show the percentage of the cost which goes to pay interest on capital. Though her examples are drawn from her native Germany, it is clear that the pattern would be similar for all industrial nations, since their monetary and financial structures are all basically the same.
>
> Kennedy shows that the cost of interest on capital, as a percentage of the fees paid by users were 12% for garbage collection, 38% for water, 47% for sewers, and a whopping 77% of rentals paid for public housing. She also shows a comparison of the interest paid and the interest gained for the population of then West German households divided into 10 different income groups of equal size. This comparison indicates, as expected, that the lower income groups, because they tend to be net debtors, pay much more interest on their debts than they gain in interest on their investments. Indeed, the 80% of households having lower incomes, on average, pay more interest on their debts than they gain in interest on their investments. The highest 10% gain about twice as much interest as they pay, and the richest of these gain progressively more.[99]

If we pursue the effects of this system further, we see that the unearned rents tend to accumulate and compound on themselves in the hands of the propertied classes until they have accumulated more wealth than they can find profitable outlets for, while the producing classes who created that wealth lack sufficient purchasing power to fully utilize even existing industrial capacity. The result is a chronic tendency toward idle capacity and surplus capital, and recurring cycles of depression. The economy, a system of flows, is full of backlogs for want of sufficient stocks, or possessors of stocks with sufficient interest, to keep the current flowing.

The lack of profitable outlets for surplus capital, in turn, results in all sorts of perverse consequences like financialization, asset stripping, subsidized waste, irrationality, and planned obsolescence.

99Greco, *New Money for Healthy Communities*, p. 24.

V. The Abundance-Based Alternative

If the primary problem, the source of the negative-sum nature of our economy, is that the issue of money is "monopolized by virtue of state granted privilege," it follows, as Greco argues, that the proper remedy is a "convivial (open to all) exchange system" which "derives from distribution of the power to issue…."[100] And if the loss of liquidity leaves local economies stagnant, with idle labor and machinery, the provision of liquidity should reanimate them.

> When exports lag behind imports, a currency shortage develops and people lose their livelihood. This is often unnecessary, since it is, generally, only the money that is missing. People, tools, energy, and materials are often all at hand and a local currency can almost invariably return any community to full employment.[101]

It follows that the supply of money should automatically adjust to the community's need for liquidity to keep goods and services circulating, with no

100 Greco, *Money and Debt:*, p. 53.

101 Linton and Greco, "The Local Employment Trading System," p. 107.

artificial restriction on the power of issue.

> It is crucial that the quantity of the exchange medium be **balanced** with the flow of goods and services coming into the market, and that it be **self-adjusting**. Much is made of the "quantity (or volume) theory of the value of money," and it is generally accepted as valid…. If money is properly issued, there will never be any problem of under-supply or over-supply. The quantity of money will always be just the right amount to purchase the goods and services which it represents…. **The proper basis of issue is the transfer of value, as it is being exchanged, from a producer to another (potential) producer.**
>
> …In a truly free society, power of all kinds, including economic power, should be widely dispersed. Thus, the association of issuers should be open to anyone willing and able to abide by its agreements and rules, which should be minimal, and there should be no restriction on the formation of competing associations. Just as we have competing credit card companies, the issuance of exchange media should be open to competing associations of issuing groups. This will tend to insure that proper procedures are followed, and contribute to the innovative development of the exchange process.
>
> So, **everyone should be empowered to issue exchange media based upon their ability and willingness to contribute valuable goods and services to the community.**[102]

This means that the libertarian money system should be genuinely abundance-based. Unfortunately, despite branding to the contrary, many local "alternative" currencies actually replicate the artificial scarcities of capitalist money. Perhaps the worst of these is the popular "community currency" of the Berkshares variety, the "scrip" which Greco describes here:

> Each of these scrip issues has been of the same type, functioning much like gift certificates. The certificates are sold for cash, usually at a small discount, and redeemed in trade by the issuing businesses sometime later. In the meantime, they can be circulated from hand to hand as money, though there is little information available regarding the extent to which this has happened.[103]

He describes them elsewhere as Convertible Local Currencies, a model which until recently "virtually all community currencies have followed,"

> including the Bristol Pound and Brixton Pound in the UK, Toronto Dollars and Salt Spring Island Dollars in Canada, and Berkshares in the US. Typically, these currencies are sold for, and can then be redeemed back into, conventional or official money. But even their proponents admit that these

102 Greco, *New Money for Healthy Communities*, p. 71.
103 *Ibid.*, p. 65.

currencies have not been effective in achieving economic relocalization.

> What really needs to be relocalized is the control of credit, which is the essence of every modern currency.... The fundamental need of communities is for additional means of exchange that supplement the available supply of money in circulation. Communities therefore need to find ways of providing their own home grown liquidity i.e their own means of payment to support their local economies and achieve some measure of self-determination.
>
> The CLC model does not provide the community with additional liquidity. Rather, it substitutes a limited local currency in place of a relatively universal official one. Such currencies bear a strong resemblance to the gift cards that are sold by myriad retail companies like Marks and Spencer and Amazon.[104]

The kind of "community currency" that you have to buy with conventional currency is fundamentally wrong-headed. Unfortunately, this is the most visible kind of "local currency" in the media — a "buy local" campaign in which local merchants agree to accept the local currency at some modest discount compared to dollars, and one obtains the local currency by trading in U.S. dollars for it at participating businesses. The problem is that, to obtain this currency, you've got to already have conventional money from past transactions. It's essentially a greenwashed lifestyle choice for liberals who have money. Such "community currencies," aside from modest discounts, are actually more trouble to use.

The proper function of a currency system is to create liquidity where it did not exist before and create purchasing power for those who lack conventional money. It primes the pump in an environment where members have useful skills and unmet needs, by advancing credit so that members can trade against future services to obtain present consumption.

In other words, a correctly designed local money/credit system should function like the village credit systems, repeatedly cited in this chapter, which provided liquidity in the absence of official money.

The closest approximation of such systems today are the kind of LETS (Local Exchange Trading Systems) proposed by Michael Linton, and Thomas Greco's mutual credit-clearing networks — both of which operate on essentially the same principles.

> LETS systems typically consist of a set of accounts, usually kept on a personal computer. A LETS system is like a bank in that each member has an account to which transactions are credited or debited. Like a checking account, your LETS account is credited (increased, +) when you sell something and debited (reduced, -) when you buy something. The two parties to the trade negotiate the price as they ordinarily would for a cash

104 Thomas H. Greco, "Monetary Alchemy: How to Turn Bad Money into Good," *Open Democracy*, July 11, 2019 <https://www.opendemocracy.net/en/transformation/monetary-alchemy-how-turn-bad-money-good/>.

transaction, but, instead of using cash, the seller receives credits and the buyer is "charged" a corresponding amount as a debit.

Unlike official dollar bank credits or cash…, which can only be created by the banking system, LETS dollars or green dollar credits are created by LETS members themselves as needed to execute a trade. This is the crucial element which makes LETS and other mutual credit systems so empowering.

Every account begins with a balance of zero. Sales of goods or services add to one's account balance, while purchases reduce one's balance. Account balances may be negative and normally there is no interest charged on balances, though the members may agree to limit the amount of debit which a member may carry. A member with a negative or debit balance, however, is "committed" to supply that much value to others in the system at some time in the future. Having a negative balance in a LETS system is not a problem. In fact, positive balances can only exist if there are negative balances. The total of positive balances in a LETS system is always equal to the total of negative balances. Besides not charging interest on balances, there is no repayment schedule for debit balances in a LETS system. There is, however, the expectation that members with debit balances will actively offer their services to prevent their accounts being permanently in debit.[105]

This is a barebones model, leaving many specifics — the unit of account, the permissible size of negative balances, larger-scale federation of systems — to practical judgement.

Proposals for units of account range from the value of a composite basket of goods,[106] to pegging to the official currency. The general consensus concerning negative balances is that they should be determined by the average turnover for some given period in a member's account.

This means that an issuer should, in the normal course of business, be able to liquidate his/her issue within a reasonable period of time. The guiding principle which seems most appropriate, based on past monetary experience, is that a participant is qualified to put into circulation an amount of "money" up to the amount of his/her sales over a 2 or 3 month period.[107]

Of course the volume of transactions in a typical account and the size of negative balances will increase with the scale of federation. Local mutual credit systems must limit the size of an individual's negative balance. But as such systems federate, with increasingly larger enterprises as participants and coordination of flows between enterprises becoming their predominant function,

105Greco, *New Money for Healthy Communities*, p. 62.
106Greco, *Money and Debt: A Solution to the Global Crisis*, pp. 47-50.
107Greco, *New Money for Healthy Communities*, p. 71.

the potential exists for much larger negative balances, amounting to the supply of investment credit in productive enterprises. As Eisenstein writes:

> More sophisticated mutual-credit systems have flexible credit limits based on responsible participation. Global Exchange Trading System (GETS, a proprietary credit-clearing system) and Community Exchange System (CES) use complicated formulas in which credit limits rise with time according to how much or how well one has participated in the system. Those who have fulfilled their negative-balance obligations in the past get a larger credit limit. This formula functions just like a conventional credit rating.[108]

This principle should be scalable beyond the level of individual exchange. There is no reason that — for example — in an accounting system shared by the cooperative enterprises of a region, one enterprise cannot provide raw materials to another on credit backed solely by the promise to put an equivalent amount of goods or services into the system in the future, with no "savings" or accumulated wealth being required other than the value of the goods and services actually being exchanged. The governing board of such a regional network, made up of the major member enterprises, might likewise agree, based on their assessment that demand is sufficient to support a new enterprise, to advance credit for the machinery and other capital needs of a startup.

Of the so-called "store of value" function, Riegel relates it to "the instrument or record of money credits." In the context of Greco's proposed system, in which each individual has an account in a computerized common bookkeeping system, the "store of value" is simply the recorded credit balance. As Riegel points out, this credit balance is no more imaginary than the face value of a coin.[109]

One question that frequently arises, in regard to systems on this model, is how it will prevent the over-issue of credit. One of my correspondents addressed the claim that investors' capital doesn't actually do anything to physically contribute to production, but is simply a socially constructed claim on the right to direct physical resources created by workers acting on nature, by comparing money-capital to railway batons. Their function, he said, analogous to that of the baton in making sure the track is clear for one train. The purpose of "sound money" is to ensure that

> someone, somewhere… must have made something to get the money, which means that the thing made or what it was transformed into must be around in the present for the money to call on. The money, like a baton, is a symbol, empty in itself but constructive when it is hooked up to reality. Unhooking it makes it not work. Funny money makes things not work, if it is funny

108 Eisenstein. *Sacred Economics*, p. 270.
109 Riegel, *Private Enterprise Money*, p. 56.

enough….

But the function of railway batons in this analogy — in which the symbol is hooked up with reality, making sure that two or more parties can't make claims on the same physical resource — is performed in the Greco-Lietaer credit system by the fact that credits to one's account are obtained in the first place by selling goods and services, and by definite limits on the size of the negative balance one is allowed to run compared to one's volume of activity. The quantity of money in system is tied to the quantity of goods and services created, because it is created by producing such goods and services; in other words, it exists because "someone, somewhere, made something." The difference is that the unit of account is not a commodity with an independent market value. The possibility of a negative balance gives for some slack in the tie to reality, but it's still a reasonable approximation. And the size of the permitted deficit can be adjusted by the administrators of the system in the face of experience. And when the larger federated mutual credit system of a major city or region decides to advance credit for plant and equipment for a startup enterprise, it will do so based on existing member enterprises' assessment of whether there is sufficient demand in the local economy to support it.

The system described above is merely the bare bones of an architecture based on the general principles of Linton, Greco, and Riegel. Within that basic framework, it is infinitely adaptable to social forms; besides remedying the effects of unequal power resulting from wealth inequality and the control of concentrated wealth over resource allocation, it can be modified to address other axes of inequality. For example, depending on how social functions are allocated between the money and non-money/informal economies, and how care and reproductive labor is organized within the non-money informal/household economy, local or regional credit network might issue credits in the form of a basic income to support those engaged in social care, reproductive labor, mutual aid, or other activities outside the sphere of monetary remuneration.

The greatest practical difficulty facing an abundance-based money and credit system of the sort described in this section is not anything involving its actual functioning, but the problem of transition to it from our current starting point. As is true of many other examples of transition from present-day institutions of capital and state to libertarian successor institutions, the problem can be compared to transforming a sedan into a motorcycle by removing two of its wheels. The difficulty lies in the intermediate stages.

Because both the present system and the successors proposed here possess limited granularity, it's hard to imagine how any gradual, progressive replacement

could occur.

The informal, cooperative, democratic, or non-capitalist economic counter-institutions that exist in the current society are still predominantly small, and between them produce only a minority of the consumption needs even of those who are most deeply involved in the solidarity economy movement. While mutual credit arrangements of the sort discussed here might be organized between individuals and enterprises participating in the counter-economy, capitalist enterprises would of necessity comprise the majority of inputs and outputs for cooperative and democratic enterprises, and workers in the counter-economy would continue to require the majority of their pay in conventional currency for the portion of their consumption needs still met by the capitalist economy. Since the state's taxation authorities and the larger business enterprises refuse payment in anything but conventional currency, and since alternative currency-credit systems are plagued by surpluses of unspent currency for want of a sufficient range of participating goods and services providers, alternative credit networks are likely to remain marginal until some tipping point is reached. At this hypothetical tipping point, the shift of growing numbers of unemployed providers of a wider range of goods and services into alternative organizational models and exchange in the counter-economy, and the lack of sufficient consumer demand via conventional currency, might result in the increasing relevance of alternative credit networks as a matter of necessity for survival. The same thing happened in many places during the Great Depression. If large enterprises are taken over by their workers, or recuperated after abandonment by their capitalist owners, as in Argentina, the participation of such enterprise in alternative credit networks could make the shift even more decisive.

Pending such a tipping point, what options are available in the meantime? The continuing ephemeralization and cheapening of micromanufacturing technology, with its resulting increase in granularity, offers one potential path for gradual, interstitial growth. The possibilities of such technologies are suggested by the entire modular ecology of open-source tools developed by projects like Open Source Ecology's Factor-e Farm demo site, and the proliferation of hackerspaces in cities and towns around the world. This direction of technological change can facilitate systematic local import substitution strategies of the kind Jane Jacobs advocated, exemplified in the "Third Italy" economy of Emilia-Romagna since the 1970s, and more recently in municipalist projects like Cooperation Jackson aimed at building diversified local cooperative economic ecosystems. The rapid sporulation of small micromanufacturing shops with general-purpose machinery, coupled with informal/home-based micro-enterprises like bakeries, breweries, sewing shops, thrift stores, repair services, pirated ride apps, cooperative daycare, community horticulture, and the like, offer the possibility to expand alternative

credit networks to encompass an ever greater share of the economy, as unemployment and underemployment gradually rise, without waiting for an outright catastrophe on the scale of the Great Depression.