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Money as a Legal Institution

Christine Desan

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I. Introduction

Money has long played a central role in the character and culture of the Western world. The medium is seminal to economic activity and analysis: money provides the unit in which prices appear, supplies a means of exchange, and acts as a store of value. Money is essential as well to critics of economic orthodoxy: according to Marx, capitalism arrived when individuals moved from exchange aimed to reproduce equal values, to exchange aimed to accumulate monetary capital. Other commentators agree on the centrality of money, for better or worse. Karl Polanyi argued that money carried modern societies across a threshold that threatened the fabric of social life. As he described the nineteenth century, ‘[a]ll transactions are turned into money transactions, and these in turn require that a medium of exchange be introduced into every articulation of industrial life.’ Popular culture restates that theme, whether observers identify the Gold Standard as ‘the standard of civilization’ or bemoan ‘the almighty dollar’.¹

In an account that became iconic, John Locke agreed that money played a pivotal role in the development of European societies. For Locke, the medium was transformative: money allowed men to accumulate property through labour without violating the natural prohibition against waste. Before money, each man appropriated to himself only what his labour and the ‘conveniences of life’ allowed him. That measure ‘did confine every man’s possession to a very moderate proportion’, because ‘no man’s labour could subdue, or appropriate all; nor could his enjoyment consume more than a small part’. For the philosopher, man’s labour created the right to property and man’s capacity to use what he claimed provided a natural limit to that right:

He that gathered a hundred bushels of acorns or apples, had thereby a property in them, they were his goods as soon as gathered. He was only to look, that he used them before they spoiled, else he took more than his share, and robbed others.²

¹ For a synopsis of economic approaches to money, see J. Tobin, *Money* (2nd edn, 2008), at 3. For Marx’s argument that society moved from the trade of equal commodities through the intermediary of money (C–M–C), to the sale of commodities for monetary profit (M–C–M), see K. Marx, *Capital: A Critique of Political Economy*, trans. Ben Fowkes (1976), at 188. For Karl Polanyi’s description, see *The Great Transformation: The Political and Economic Origins of our Time* (2nd edn, 2001), at 44. For popular commentary on the dollar, see, e.g., W. J. Bryan, ‘Cross of Gold’, in *The Annals of America*. Vol. 12: 1895–1904: *Populism, Imperialism, and Reform* (1968) 100, available at <http://historymatters.gmu.edu/d/5354/>; W. Irving, ‘The Creole Village’, in *The Complete Works of Washington Irving*, ed. R. Rosenberg (1979 [1937]), vol. 27, 22, at 27.

² J. Locke, *Second Treatise of Government* (1691), ch V, section 46.

According to Locke, money lifted that natural limit on the right to property. It allowed men to trade something durable for the material that would otherwise have gone to waste. The impact was emancipatory: it released men from the strictures that discouraged their work, and motivated them instead to invest in their land, to improve its cultivation, and to enlarge their possessions. Money amounted, in other words, to the font of economic productivity. In Locke's words, 'he that encloses land, and has a greater plenty of the conveniences of life from ten acres, than he could have from an hundred left to nature, may truly be said to give ninety acres to mankind.' For Locke, money marked the difference between the civilized environs of Europe, and the wild landscape of the New World: 'Thus in the beginning all the world was America, and more so than that is now, for no such thing as money was any where known.'³

For all its miraculous effect, money arrives so quietly in Locke's chapter on property that readers need not think about what it is, or how it works. The mystery is packed into the end of a paragraph about the labour theory of value and the prohibition against waste. A man could, notes Locke, give away any extra fruit he collected to avoid letting it spoil. Alternatively, he could trade it for something that would not decay:

And if he also bartered away plums, that would have rotted in a week, for nuts that would last good for his eating a whole year, he did no injury; he wasted not the common stock; destroyed no part of the portion of good that belonged to others, so long as nothing perished uselessly in his hands. Again, if he would give his nuts for a piece of metal, pleased with its colour; or exchange his sheep for shells, or wool for a sparkling pebble or a diamond, and keep those by him all his life he invaded not the right of others, he might heap up as much of these durable things as he pleased; the exceeding of the bounds of his just property not lying in the largeness of his possession, but the perishing of any thing uselessly in it.⁴

The next paragraph confirms that Locke has said all he will about how money enters society. As Locke puts it there:

And thus came in the use of money, some lasting thing that men might keep without spoiling, and that by mutual consent men would take in exchange for the truly useful, but perishable supports of life.⁵

Scanning back for the operative moment, we find that money is 'a piece of metal' that a man might agree to in a trade because he was 'pleased with its colour', content to accept 'shells', or 'a sparkling pebble or a diamond'. The equation is arresting in its simplicity and its subjectivity. We have an account of one man's exchange for a lovely object, an appealing vignette about an early world. But as a tale intended to explain money, it raises as many questions as it answers.

Why would anyone living on the edge, in a subsistence world with little margin, work to 'heap up' shells, or pieces of metal? Why is that person an incipient capitalist rather than a *naïf*, willing to work for baubles? In a world that was, by definition, uncivilized, why wouldn't a stronger man just take back the bauble if he so desired? Why would people ever begin to measure goods in terms of a material that no one needed? What good comes to hand in units like that? How, in other words, is the singular act that Locke portrayed generative of a collective and continuing consensus, one that explains, rather than assumes the 'fancy or agreement' that would attribute value to 'money'?

Locke's account typifies a modern trend, one that elides the making of money and declares rather than explicates the way that medium works. Indeed, the philosopher's

³ Ibid., sections 37 and 49.

⁴ Ibid., section 46.

⁵ Ibid., section 47.

account may well have triggered the trend.⁶ The narrative most commonly offered to explain what money is and why it holds value suggests that people create money when they start to use a commodity of natural value, like Locke's piece of metal, as a medium. According to the conventional wisdom, they do so gradually, eventually adopting an object that all value in common because barter without currency is awkward. People who have certain goods that they would like to trade, pigs for example, need to find trading partners who both have what they want, cheese perhaps, and want pigs in return. Often, this 'double coincidence' of wants does not occur and the farmer with pigs must trade for items that may be of more interest to the cheese seller. The farmer may trade his pigs for hens, then trade hens for corn, then corn for wood, if he anticipates that the cheese seller wants wood and will give cheese to get it. All the deals are made difficult by time and distance.⁷

The problems created by barter would be alleviated if everyone recognized one commodity as the 'universal equivalent', a material that each person accepted as a valuable good that could be traded in the future.⁸ In that case, the pig farmer could take the universal equivalent in payment from whoever wanted his pigs, and he could use that material as payment when he bought cheese. Some accounts imagine that the choice is made by mutual consent—a social consensus of sorts. Locke in his later years argued that silver claimed status as the 'equivalent to all other things' because of 'that estimate which common consent has placed on it'. That acclaim made it 'the universal barter or exchange which men give and exchange'.⁹ Others imagine a teleology that produces convergence: 'As economizing individuals in social situations became increasingly aware of their economic interest, they everywhere attained the simple knowledge that surrendering less saleable commodities for others of greater saleability brings them substantially closer to the attainment of their specific economic purposes.' Exchanging awkward objects for more commonly demanded objects, eventually people came to recognize one commodity as the medium that all would give and take. 'No one invented it', concludes one author, 'money is a natural product of human economy.'¹⁰

But the convergence story raises as many questions as Locke's early account. Each entails a kind of circularity, a 'Catch-22' of causation. First, the objects that appear as 'money' in the historical record—shells and metal tokens most commonly—are not obviously the most 'saleable' commodities in a subsistence economy. They are of little intrinsic use to those eking out a meagre living until, of course, they are recognized as money.¹¹ Second, objects of value would need to be standardized in order to be able to act as a uniform measure or constant unit of account. But it would not be worth anyone's time to standardize them until again, they had attained stature as the unit of account. Third, the convergence story assumes conditions of order—contract and property rights in the materials transferred. But that presumes a polity or community with the resources to enforce contract and property rights. The world of barter would not likely support a mode of

⁶ For an account of Locke's influence, see C. Desan, *Making Money: Coin, Bank Currency, and the Coming of Capitalism* (2014), at 330–65.

⁷ See, e.g., Tobin, above n 1, at 3; R. Levine, 'Financial Development and Economic Growth: Views and Agenda', (1997) 35(2) *Journal of Economic Literature* 688, at 690.

⁸ The term is from Marx, above note 1, at 162.

⁹ According to Locke, the consensus was global, and 'even the *Indians* rightly call it, *measure*'. See J. Locke, *Further Considerations Concerning Raising the Value of Money* [1696], in P. H. Kelly (ed), *Locke on Money* (1991) 399, at 410. Examples of similar reasoning from the nineteenth and twentieth centuries abound. See, e.g., J. B. Felt, *An Historical Account of Massachusetts Currency Microform* (1839), at 10; Tobin, above n 1, at 1–2.

¹⁰ C. Menger, *Principles of Economics*, trans. J. Dingwall and B. F. Hoselitz (1981), at 263.

¹¹ Livestock and other perishable commodities were probably not as commonly chosen as money as once thought. See, e.g., M. S. Peacock, 'Accounting for Money: The Legal Presuppositions of Money and Accounting in Ancient Greece', (2013) 55(3) *Business History* 280.

governance that enforced monetary transfers, unless the group could use money to pay for that governance work. Fourth, the fact that an object began to circulate as money would not ensure its continued circulation. A powerful person or group could easily hoard the conventional resource, forcing everyone to trade with them or destroying the consensus that supported money. Only devices that ensured that the units acting as currency constantly entered and left circulation—only a working money supply in other words—would keep the system functioning. Fifth, and enough for the moment, whatever the origins of money in an object of value, money today is made of paper. If the consensus that supported silver ever occurred, its days are over. According to the economics books, we value a dollar only because everyone else does, but the strength of that ‘network’ effect is an untested assertion, made for lack of another explanation.

We might imagine answers to the mysteries created by the convergence story and the on-going efficacy of money, even money made of paper. For centuries, however, the practice of money has suggested another story. Money in the Western world is a legal institution, a means of packaging value that depends on a set of opportunities and obligations defined by the polity. That process is an on-going one, one that affects the way people relate to each other and to the larger community. In that sense, the process of making money involves people both as individuals and as a collective. It serves both private and public purposes. Like any other mode of governance, it can be structured in ways democratic or dictatorial. For good or ill, it is designed by those using it. Likewise, it is susceptible to redesign that changes the way it circulates and the exchange it enables.

The case for considering money as a legal institution can start where Locke left us. If we add to his story the conditions that would make it work, we can indeed produce ‘money’. Money is neither an object—the lump of silver that the philosopher imagined, nor an abstraction—the convention that those observing paper money assume. Money is, instead, a method of representing and moving resources within a group: it is a way of referencing or entailing material value that creates a unit to measure other resources over time, pay off obligations finally, and transfer value immediately.¹²

The description of money as a legal institution revises the Lockean story in three dimensions. First, there are individuals in the revised story, but there is also a group—the set of people who are claimants to a pool of resources. We might imagine a collective (a family, clan, tribe, or polity) bound together at least for protection against those who would simply take their property. Locke’s primitive man could otherwise be quickly dispossessed by a passing barbarian. Second, there is a process in the revised story, an interaction that brings Locke’s individual, and the group he inhabits together to recognize value in a unit that has relevance to all of them. Otherwise, there is no reason to assume that the unit coveted by one individual would gain status as a common referent for value. Third, the process that creates a relevant unit is perpetuated; it operates through an agreement, a set of rules or norms—we might call them laws. Money, it turns out, depends on a set of concepts—credit, debt, commodity, payment, sale, contract, and even (or especially) property—that are legal categories. Only by recapturing money’s legal architecture can we understand how it operates to transfer goods, effectuate a deal, or generate stable exchange.

The next pages unpack each dimension to develop the story that explains money as an institution, one that creates a material referent for value and is enhanced by its distinctive

¹² For the standard definition of money as a unit of account, store of value, and medium of exchange, see, e.g., Tobin, above n 1, at 4. On the payment function of money, see S. Bell, ‘The Role of the State and the Hierarchy of Money’, (2001) 25(2) *Cambridge Journal of Economics* 149.

capacity as a measure, mode of payment, and medium. According to that story, individuals advance value to a group in exchange for a unit that everyone else recognizes; each person has reason to accept and use the token because the group endorses it as the item that will pay off obligations. Through that arrangement, the public gains a way to mobilize resources on demand. Individuals, meanwhile, gain a shared technology of value that facilitates exchange. Legal relationships structure the dynamic; as they change, the money they produce changes also. Indeed, money has taken many different forms in the west, each a product of the legal process that shapes it.

II. Making Money ‘Real’

As in Locke’s account, our story begins in a world without money. People act together and separately in this world, like any other. They bond for many reasons, including social life, productive exchange, and the defence of their homes and goods. Their common stake can be rooted in family, land, shared resources, a commitment like mutual protection, or a combination of many such interests. They contribute to maintain their place in the group, providing labour, goods or supplies, or military service. Chris Wickham describes early Anglo-Saxon England in terms that offer one example. There, small rulers led communities often related by birth or loyalty in return for tribute in labour, produce, and military service. In other eras, kings or counsels, warlords, or more structured governing bodies may control or represent the group; we might call those leaders ‘stakeholders’ to cover the variety while avoiding the implication that every collective activity is undertaken by a ‘state’.¹³

The early Anglo-Saxon world furnishes a setting as well for the next stage of the story. According to most scholars, monetary activity in Britain broke down after the withdrawal of Roman forces in the early fifth century. The archaeological record, including numismatic evidence, suggests that the break with the imperial economy was virtually complete. Inhabitants experienced a ‘drastic lessening of their living standards and political horizons’ and a dramatic decline in the ‘sophistication of material culture’. According to Wickham, ‘exchange structures collapsed everywhere’ after about AD 410. Pottery shards and looms indicate that production moved to the household, where families made ceramics and clothing for home use.¹⁴ Other scholars argue for a more gradual decline and some survival of Roman influence, but even the revolution in numismatic evidence that has occurred with the advent of metal detecting, and the increase in coin finds has not revised the basic consensus that a grave rupture in monetary activity occurred.¹⁵

¹³ Wickham argues that early Anglo-Saxon societies consisted of peasants who were fairly autonomous economically, men not locked into feudal tenancies but dependent instead by bonds of ‘mutual obligation and loyalty’. Rulers collected tribute reliably, in food, labour in bridge, and fortification building, and ‘above all, army service’. See C. Wickham, *Framing the Early Middle Ages: Europe and the Mediterranean, 400–800* (2005), at 305.

¹⁴ See *ibid.*; G. Williams, ‘The Circulation and Function of Coinage in Conversion-Period England, c. AD 580–675’, in B. Cook and G. Williams (eds), *Coinage and History in the North Sea World, c. AD 500–1250* (2006) 145, at 158; R. Abdy, ‘After Patching: Imported and Recycled Coinage in Fifth- and Sixth-Century Britain’, in Cook and Williams (eds), *Coinage and History*, 75; P. Spufford, *Money and its Use in Medieval Europe* (1988), at 9; I. Stewart, ‘The English and Norman Mints, c. 600–1158’, in C. E. Challis (ed.), *A New History of the Royal Mint* (1992) 1, at 3.

¹⁵ For a review, see Williams, above n 14, at 154; see also Abdy, above n 14, at 94; R. Naismith, *Money and Power in Anglo-Saxon England: The Southern English Kingdoms 757–865* (2012), at 15; T. S. N. Moorhead, ‘Roman Bronze Coinage in Sub-Roman and Early Anglo-Saxon England’, in Cook and Williams (eds), above n 14, at 95; C. Loveluck, K. Dobney, and J. Barrett, ‘Trade and Exchange—The Settlement and the Wider World’, in *Rural Settlement, Lifestyles and Social Change in the Later First Millennium AD: Anglo-Saxon Flixborough in its Wider Context* (2007) 112.

The inhabitants of fifth and sixth century Britain were, then, largely bereft of a common measure and media of exchange. They lacked a shared unit of account to value goods; according to current consensus, they used the old Roman coins that still circulated as jewellery, commodities, or weights.¹⁶ Barter was an illiquid alternative. Rather than a world of easy exchange, deals were fragmented by distance, difficulty of travel, and the absence of information about the availability of goods. Households that engaged in subsistence production surely traded among themselves; scholars find evidence of gift exchange as well as tribute changing hands, even as the remaining coin appears most often in ornamental use. But as a recent history concludes, ‘all forms of market exchange, beyond the simplest . . . must have ceased’.¹⁷

In such circumstances, most individuals would be hard pressed to set aside silver, much less gold. Both metals were scarce; they took skill and equipment to work; and neither had a practical use beyond the aesthetic. Each would be risky to hold and foolhardy to hoard. Given their high cost, the supply of silver or gold would be as erratic as demand. The argument that people would, acting incrementally and in parallel, predictably converge upon a shared money, let alone one made of metal, is far-fetched under those conditions.¹⁸

The community as a whole, however, was in a somewhat different situation. If anything, its need for a measure and mode of payment was especially great. While individuals could engineer idiosyncratic trades, groups collected goods and services from many hands and deployed them to a variety of uses. Communities in early Britain repeatedly rallied to construct bridges and fortifications, defend themselves, and support their forces.¹⁹ That work could be done on the basis of in-kind contributions; charters from the English seventh and eighth centuries list the produce collected by Anglo-Saxon sovereigns—vats of honey, ‘ambers’ of ale, cows, loaves of bread, geese, and chickens. But romantic as in-kind collections may sound, the supplies must not always have fit the function. Conversely, collecting support in-kind created difficulties for stakeholders: the peripatetic habit of the early Anglo-Saxon rulers may have been driven in part by the need to move to gather support in-kind.²⁰

If groups, considered in the figure of those who governed, had particular need for a currency, they also had unique capacity to create it. Their location at the hub of a community meant that they could easily invent money. The innovation occurred when a stakeholder identified a unit and began to use it as a kind of receipt to represent resources given to the group. That could happen without much planning—in fact, weak leaders without clear command of the resources in their community may have been especially inventive. Finding themselves unable to time their demands to match scheduled contributions, one such stakeholder could instead take an amount of goods or services early, giving in return a token that the recipient could provide later at a time of reckoning as proof that the service had been rendered. Continuing the technique, the stakeholder could mark other contributions in the same way.

The intervention, taken by an actor to whom many people were obligated, would create a standard of value across many goods. While no pair of people making deals could establish

¹⁶ See Abdy, above n 14, at 75; Williams, above n 14, at 145; Moorhead, above n 15. Some bronze Roman coinage may have been used locally. See Abdy, above n 14, at 93.

¹⁷ Wickham, above n 13, at 307.

¹⁸ Carlo Cipolla’s comparison between subsistence and wartime survival makes the point powerfully. See C. M. Cipolla, *Money, Prices, and Civilization in the Mediterranean World, Fifth to Seventeenth Century* (1967), at 9.

¹⁹ See Wickham, above n 13, at 315 for the prevalence of these projects by the small polities of the early Middle Ages.

²⁰ Ibid.; Naismith, above n 15, at 29.

a unit of account for the exchange of others, the stakeholder could use his position as the common partner of all to set a unit apart.²¹ The novelty of a commensurable and circulating measure is easy to overlook from the vantage point of the twenty-first century, a world awash with different forms of liquidity from money market mutual funds to Eurodollars. But in a world bereft of any shared unit of account, a token that entailed value relevant to people in common was an extraordinary accomplishment.

First, the strategy enabled public action: it opened up new ways to marshal and mobilize resources for the stakeholder. It effectively allowed him to choose the goods or services he needed when he needed them in return for a token, while retiring the token afterwards by taking it back. That is, innovating money allowed the stakeholder to spend now and tax later, a material achievement. Note that each unit of account represents an amount due to the centre. In that sense, every unit of account has a material referent: it is worth as much as the in-kind amount it represents. Indeed, the material referent for the unit of account is regularly made real in physical terms. Once the system is up and running, revenue can be routinely collected in money. But if those owing the stakeholder do not pay in money, the authority will confiscate other goods—house, tools, produce, whatever will pay off the obligation due.

A number of economic models confirm the fiscal component of money's value. As they suggest, money can be considered an asset with a value set according to its future utility in extinguishing a tax obligation. According to those models, the stakeholder can spend by giving people notes that they can use to pay their taxes. As long as the centre reliably imposes taxes payable in the notes, they will maintain their value.²² The dynamic can also be captured in more classic, quantity theoretic terms. Under this approach, money holds its value insofar as its supply remains constant relative to the demand for it. Spending and taxing by the government enlarges and constricts money flow. As they anticipate expansion and contraction in supply relative to demand, people determine how much value to attribute to money.²³

²¹ In the world I use as an example here, most stakeholders were probably male small chiefs or clan leaders in the early Anglo-Saxon world.

²² More precisely, the models assume that the notes will be spent at a discounted value, as people selling to the government calculate the value of the note by considering its use in the future for taxes. The discount occurs if the notes are useful only to pay taxes and not as cash in the interim. In that case, those earning money have laboured early and received a token that holds value only in the future. If they had put the same labour into something that grew in the meantime (presumably by the rate of the real interest rate), they would have more wealth by the time of the tax. In that sense, unless they are paid more at the outset, they will lose value by working early and earning a non-productive asset. Here, see the asset-pricing models of early American bills of credit, B. D. Smith, 'American Colonial Monetary Regimes: The Failure of the Quantity Theory and Some Evidence of an Alternate View', (1985) 18(3) *Canadian Journal of Economics* 531; C. W. Calomiris, 'Institutional Failure, Monetary Scarcity, and the Depreciation of the Continental', (1988) 48(1) *Journal of Economic History* 47; B. D. Smith, 'Money and Inflation in Colonial Massachusetts', (1984) 8(1) *Federal Reserve Bank of Minneapolis Quarterly Review* 1, and the responses to them: S. Sumner, 'Colonial Currency and the Quantity Theory of Money: A Critique of Smith's Interpretation', (1993) 53(1) *Journal of Economic History* 139; P. Bernholz, 'Inflation, Monetary Regime and the Financial Asset Theory of Money', (1988) 4(1) *Kyklos* 5. See also F. Grubb, 'Is Paper Money Just Paper Money? Experimentation and Local Variation in the Fiat Monies, Issued by the Colonial Governments of British North America, 1690–1775', National Bureau of Economic Research (NBER) Working Paper No. 17997 (April 2012) (abstracting out liquidity value and modelling paper money as a zero-coupon bond). We could analogize the situation to an 'origins' story in which the stakeholder provides a token that will exonerate the holder from a future tax, but takes a lower in-kind contribution than would be due in the future. Alternatively, the stakeholder could take the same in-kind contribution that would be due in the future but provide a token that carried extra value because it furnished cash services in the interim, as discussed below. A coercive stakeholder could also simply operate by force, requisitioning assets without a discount and without concern that a creditor received a token that furnished cash services.

²³ See, e.g., Sumner, above n 22. Sumner's model, like the asset-pricing alternatives, was built to explain colonial America, a world without circulating credit. The proliferation of credit would complicate the way people calculate price.

Second, money as a strategy changed relations in the private world: a unit of account that entailed value could be used by individuals as well as the stakeholder. The worker who initially received the token in our story need only be allowed to trade it to another, who could use it on his or her own behalf at the reckoning. Making a token transferable would be a simple modification but—in a world without a shared measure, medium, or agreed upon mode of payment—a revolutionary one. Once the token was allowed to travel, the person with it held an item that every other person who owed a contribution the centre would be willing to take in exchange for goods. That is, we have a unit that represents material value relevant to everyone (or virtually everyone) in the society, given their common relationship to the stakeholder. Thus assured of the token's value, each person would be willing to give and take it. The unit creates a shared standard of value, making prices possible in the process; it can move hand-to-hand; and it provides a payment that is secure as long as the stakeholder (or the political society he often symbolizes) lasts.

Between the time a token issues and the time it is taken back, the tokens provide an interim service to individuals that is just as substantive as their fiscal value to the group. That service would be very valuable—singularly valuable—in a world that was otherwise without any shared standard of measure, mode of exchange, and means of payment made reliable by enforcement. In that world, a person will work early for tokens because he can use the tokens to make productive transactions. In the world where the innovation of money is helpful as cash, those with goods to trade will want the tokens too. The economic models that theorize money's fiscal value, described above, recognize that people attach additional value, a kind of cash premium, to money insofar as they value the services it provides. According to those models, rather than discounting a token good for taxes in the future as if they were holding a non-productive asset, they may discount it less or not at all. In the latter case, they are treating money as an asset that provides just as much productivity as another resource.²⁴

Early English history supports the notion that money is engineered on a fiscal frame and offers a singular service to individuals as an object that can be counted, transferred, and used to pay off obligations. According to most accounts, the Western Roman Empire ran its highly monetized economy on a fiscal base: it drove coin into circulation by spending and taxing robustly to support its expansive military and administrative state. Indeed, Simon Esmonde Cleary argues that the British economy collapsed so completely in the fifth century because it was tied so closely to the Roman system: when imperial taxation ended, so also did the force that pumped money into the system.²⁵ There is little doubt that the economic meltdown in post-imperial Britain—a recent history calls the event catastrophic—occurred when the systems of exchange supported by Rome fell apart. For two centuries, the archaeological record suggests that money ceased to function. People lived on their own; they attempted to become self-sufficient rather than specializing their production to any significant extent.²⁶ Their experience suggests that when a 'working' money arrived, people would attach a premium to it as cash.

²⁴ People are acting as if the service provided by money is worth the real interest rate, a cost they are paying by holding cash without the deflation that would effectively return value to them (as prices fell and the token gained value). See, e.g., Smith, 'American Colonial Monetary Regimes', above n 22, at 533; Calomiris above n 22.

²⁵ A. S. Esmonde Cleary, *The Ending of Roman Britain* (1989), at 138; see also Spufford, above n 14, at 14; Wickham, above n 13, at 308.

²⁶ See above text accompanying nn 13–18. The evaluation that the breakdown of material culture was a 'catastrophe,' compared to the merely recessionary crisis in Gaul, is from Chris Wickham. See Wickham, above n 13, at 307.

Money becomes ‘real’ then, when we adjust the Lockean story. Rather than emerging from a convergence of independent deals, money arises from a co-ordinated initiative, one fiscally engineered and productive of cash services to individuals. In fact, many accounts about money suggest just that character—we might sample the evidence provided by coin itself, the practice of free-minting, judicial commentary, and academic theorizing.

Coins provide testament to their own creation. They began to circulate in Britain in the early seventh century, appearing first as gold scillingas and expanding when the English began minting silver sceattas in the 670s.²⁷ While gold coin often imitated Roman imperial precedents, silver sceattas boasted beautiful and varied designs, including animal forms, diademed busts, and figures like a long-haired or helmeted man with a hawk. For some scholars, the variety suggests that money emerged as a private industry.²⁸ For others, however, the plethora of types reflects the political geography of Britain at the time—small ‘closely governed’ kingdoms and maritime towns or ‘wics’, each of which could well have produced its own coin. According to that reading, many of the symbols that grace sceattas—the bust, heraldic animals, the helmeted figure—are imprimaturs of the community’s stakeholder, a small ruler or one of his delegates.²⁹ That diagnosis fits neatly with the notion that collectives of many types can ‘make money’ according to the strategy described above.³⁰

In any case, by the end of the eighth century, English rulers made their authorship of coin unambiguous. Beginning in Northumbria, and then in Mercia and Wessex, kings unified larger territories and built stronger political structures. Their authority was imprinted on their money: like the coin of the Roman Empire, it carried their names and portraits and was produced by the moneyers they controlled. Dues, tax burdens, and exchange all increased, along with specialization in the production of commodities like pottery. That is exactly the pattern we should expect if money is created on a fiscal frame and provides cash services as it circulates.³¹ The power of the Anglo-Saxon kings that followed, along with sophistication of their minting and revenue raising machinery, has become legendary.³²

The practice of making commodity money provides another form of evidence that corroborates the ‘real’ story. Note that in the account above, tokens produced by the stakeholder acted as the unit of account. The tokens could be made of anything, as long as they were exclusive to the stakeholder and could not be imitated; otherwise, people could fraudulently multiply the number of receipts that circulated.³³ Making tokens out of a material that was scarce, durable, and difficult to work—thus long-lasting and hard to counterfeit—made great sense under the circumstances. The English, like most Europeans more generally, turned to silver. Under a system called ‘free-minting’, they opened mints that sold inhabitants coin on demand: buyers brought in a pound of bullion, for example,

²⁷ Naismith, above n 15, at 5; Williams, above n 14, at 161.

²⁸ Naismith, above n 15, at 37; P. Grierson and M. A. S. Blackburn, *Medieval European Coinage*. Vol. 1: *The Early Middle Ages (5th–10th Centuries)* (1986), at 158–9.

²⁹ D. M. Metcalf, *Thrymsas and Sceattas in the Ashmolean Museum Oxford* (1993), vol. 1, at 12.

³⁰ The diagnosis gains additional breadth when we note the versatility of the monetary strategy: a community can put a coin into play partially and improvisationally. Similarly, the tokens might travel only within certain circles, elites, for example, or among town-dwelling traders who paid dues, bought, and sold in coin.

³¹ Metcalf, above n 29, at 113; Naismith, above n 15, at 7. For the political development of these early kingdoms, see Wickham, above n 13, at 303; compare Loveluck et al., above n 15, at 119.

³² P. Wormald, *The Making of English Law: King Alfred to the Twelfth Century*. Vol 1: *Legislation and its Limits* (2001); Naismith, above n 15, at 87; Stewart, above n 15, at 49; Spufford, above n 14, at 90.

³³ Indeed, units of account could be entries in an account book, so long as they could not be illicitly reproduced. See, e.g., M. McLeay, A. Radia, and R. Thomas, ‘Money Creation in the Modern Economy’, (2014) 1 Q1 *Bank of England Quarterly Bulletin* 1.

and got it back in coined form less a small charge for the work. Thus the mint might produce 242 pennies from a pound of silver, keep a fee of 12 pence for the moneyers and the king, and return 230 pennies to the buyer.³⁴ The counterintuitive label, ‘free-minting’, came from the fact that the government stood ready to coin as much money as people wanted, provided they paid the fee.

By definition, the system identified the value of silver in coined form with the value of the tax obligation. When a person turned in 230 pennies in taxes, he or she used it only for its fiscal value.³⁵ Hypothetically, the taxpayer could hand over the pound of bullion, leaving the government to make coin and pay itself its minting fee. The tax and the fee could be conceptualized together as a larger levy. Despite that possibility, people went to the mints and paid for coin over and above the amount they needed for taxes. They acted because they valued the cash services of money: when others felt the same way, prices in coin were low because people would give more goods for each coin. That is, they preferred having money to having bullion, even bullion that amounted to a greater amount of silver. People ‘bought’ coin, then, because although they received less silver from the mint, they received it in the form of coin—and coin carried a premium that made the cost worthwhile. Eventually, as people continued to go to the mint to buy coin, prices would rise: pennies would lose value because more were circulating, all other things being equal. At a certain point, prices would be high enough that inhabitants would rather have their silver bullion than a greater supply of coins, and they would stop going to the mints.³⁶

In its very design, free-minting demonstrated both the fiscal component of money’s value and the fact that coin often bore a premium as cash over silver bullion. As the system operated, it compelled people to buy enough coin to cover their obligations to the government; otherwise, they would pay the consequences in confiscated assets. The government had thus contrived a way to produce tokens and at the same time charge for them. In turn, individuals supplemented the amount of coin needed to satisfy the fiscal needs of government: to the extent that they wanted more money, they bought more coin at the mint. Throughout this time, the system protected the government and community from inflation by controlling the amount of money produced: those buying additional money ‘paid’ for it by creating more coin that had innate value cognizable in the taxed unit—the tax had, after all, been identified with a certain amount of silver due, plus whatever cash premium it carried. Put another way, there was no danger from loss caused by oversupply of money because people stopped buying it as soon as they valued silver bullion more highly than coin, a decision prompted when prices rose above the point at which minting was worthwhile. In short, free-minting produced money tied, coin by coin, to the value of the units due for taxes while allowing people to buy as much coin as they could to satisfy their desire for cash.

Commentators have theorized money in ways that comport with the account developed above. In many ways, the courts have witnessed most directly to the character of money as they enforce it. In keeping with the example of English ‘free-minting’ is the early modern case that confirmed the sovereign power to define the unit of account. *The Case of the Mixt*

³⁴ See, e.g., A. Redish, *Bimetallism: An Economic and Historical Analysis* (2000), at 27. For a contemporaneous account, comparing English charges to others on the continent, see, e.g. ‘Assay of the New Money’ [1248], in *The De Moneta of Nicholas Oresme and English Mint Documents*, ed. and trans. C. Johnson (1956) 53, and ‘A Treatise on the New Money’ [c.1280], in *The De Moneta and English Mint Documents*, 65.

³⁵ 230 pennies would be an absurdly high tax; it is only used here to show the relationship between coin and bullion values.

³⁶ In fact, if prices kept rising, people might even begin to melt existing, increasingly low value, pennies. At the ‘melting point’, they would prefer to have the silver, rather than the coin itself. See, generally, T. J. Sargent and F. R. Velde, *The Big Problem of Small Change* (2002).

Money arose in the early seventeenth century, occasioned because Elizabeth I had debased the silver coin circulating in Ireland. Her action left it unclear whether private creditors should be paid in the original coin of high intrinsic value or the replacement coin of a reduced silver content. If money depended on the stakeholder's authority to determine what passed current, a matter decreed by the government and implemented when it taxed and spent, then the new money with its lower intrinsic content must be a legal mode of payment. If, to the contrary, money meant an amount of silver, the product of private agreement, then the debased money was invalid as such payment.³⁷

The Mixt Money Case discussed in Chapter 12 in this volume, vigorously confirmed the Queen's authority.³⁸ '[T]he most precious and pure metal' could not be money, the jurists reasoned, without 'the extrinsic good' provided by the sovereign form. It was not the 'natural material of the body of money', that composed it, they continued, quoting Molinaeus (Charles DuMoulin), 'but its imposed value that is the form and substance of money'. That was 'not of a physical body, but rather a contrived one'.³⁹ Invoking civilian as well as common law sources, they returned to Molinaeus, '[b]y law it matters not whether more or less silver is contained within it, so long as it is official (*publica*), genuine, and legitimate'.⁴⁰ They quoted the Italian jurist Baldus, 'With coinage, one should pay more attention to its use and circulation than to its substance'.⁴¹ Finally, they came to the Roman Seneca, '[b]oth the man who owes gold coins and the man who owes leather imprinted with an official stamp is said to be in debt.'⁴² Each authority suggested that money was a matter collectively engineered to entail value anchored by its use in a polity.

The gathering of evidence ultimately includes academic commentators. Adam Smith's observation takes us forward to the world of paper money, a place consistent with the world of tokens we first imagined. Smith, without wasting a word, conveys both the logic that fiscal activity fixes value in a currency, and the reality that the currency can provide cash services as effectively as did the silver or gold coin it displaces:

A prince who should enact that a certain proportion of his taxes should be paid in a paper money of a certain kind might thereby give a certain value to this paper money, even though the term of its final discharge and redemption should depend altogether upon the will of the prince. If the bank which issued this paper was careful to keep the quantity of it always somewhat below what could easily be employed in this manner, the demand for it might be such as to make it even bear a premium, or sell for somewhat more in the market than the quantity of gold or silver currency for which it was issued.⁴³

Smith spoke during a century of experimentation with paper money. Bank money, public debt, and commercial notes all invited analysis as credit forms. By the following century, credit had become paramount: the rise of deposit banking would expand the money supply in real terms until it was more than five times larger than it had been on the eve of the

³⁷ *Gilbert v. Brett* (*The Case of Mixt Money*) (1605) Cobb. St. Tr. 114. The case was decided by the Privy Council acting as the relevant judicial authority for Ireland.

³⁸ See Chapter 12 of this volume.

³⁹ *Gilbert v. Brett* (*The Case of Mixt Money*) (1605) Cobb. St. Tr. 114, at 124 ('non materia naturalis corporis monetæ, set valor impositiuitus [sic] est forma est substantia monetæ, quæ non est corpus physicum set artificiale').

⁴⁰ *Ibid.*, at 125 ('de iure non refert sive plus sive minus argenti insit, modo publica, proba, et legitima moneta sit').

⁴¹ *Ibid.* ('in pecunia potiu attenditur usus et cursus quam materia').

⁴² *Ibid.* ('Aes alienum habere dicitur, et qui aureos debet, et qui corium forma publica percussum.')

⁴³ A. Smith, 'On Money considered as a particular Branch of the general Stock of the Society, or of the Expense of maintaining the National Capital', in A. Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1937 [1776]).

Glorious Revolution.⁴⁴ In the early twentieth century, Georg Knapp would dub money a ‘chartal’ form, adopting the Latin term for ‘ticket’ to denote money’s character as a token that could pay off a debt, most particularly a debt due from the state. The approach marginalized the commodity content of money. As Knapp pointed out, ‘a man who gets rid of his debts’ spent little time considering what material made up his means of payment.⁴⁵ He cared instead that the state ‘when emitting it, acknowledges that, in receiving, it will accept this means of payment’. Knapp’s ‘state theory of money’ emphasized the fiscal engineering that undergirded money’s value.⁴⁶

Knapp himself spent little time analysing the cash premium that money carried. That element was, however, a focal point for John Maynard Keynes, who recognized that people’s desire to hold money drove a substantive wedge into neoclassical models of equilibrium in the market for real goods. The legacy informed later schools of monetary theory. Some explicitly reject the ‘convergence’ story of money. Modern monetary theory and a variety of sociological approaches locate the unit of account as a feat of fiscal engineering, which is expanded by modern credit relations.⁴⁷ Perhaps more surprising, theorists within the mainstream neoclassical tradition are beginning to explore fiscal theories of value and attend to the cash services of money.⁴⁸

Given their great need and unique capacity, groups acting through stakeholders have probably invented money, again and again, in societies as different as Mesopotamia and early England.⁴⁹ When we embed an individual within a domestic community and consider the way they interact, money appears a relatively obvious strategy to mark and move resources. Intervening into the relationships of an individual and the group he or she inhabits, money fixes value that is neither abstract nor symbolic. To the contrary, it is as real as the relationships that give it substance. That takes us to law: it is the process that puts the relationships making money into practice.

III. The Place of Law

Money persists over time because, or insofar as, it is institutionalized. The relationships described above are matters of governance. They are carried out in law, understood expansively to include the wide variety of formal and informal practices of decision and enforcement that communities adopt to channel human interaction.

⁴⁴ The figure is adjusted for inflation and population. In other words, people kept on hand more than five times as much purchasing power in money form as they had previously held; that amount would rise even more precipitously in the century to come. B. R. Mitchell, *British Historical Statistics* (1988); Desan, above n 6, at 399.

⁴⁵ Georg Friedrich Knapp, *The State Theory of Money*, trans. H. M. Lucas and J. Bonar (abridged edn, 1924), at 52.

⁴⁶ Ibid. Knapp actually held a ‘convergence’ view of money’s origins, a curiously metallistic twist on a mentality otherwise emphatically nominalist. In his view, ‘money’ took lasting shape when the state, inheriting an ‘exchange commodity’, legislated a substitute for it that was of different commodity value. After the transition, money’s value depended on its legal form. See *ibid.*

⁴⁷ See, e.g., L. R. Wray, *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems* (2012); L. R. Wray, *Understanding Modern Money: The Key to Full Employment and Price Stability* (1998); Bell, above n 12; G. K. Ingham, *The Nature of Money* (2004); Peacock, above n 11. Another group of post-Keynesians extend the logic of credit-based money creation to explore endogenous money creation by the banking sector. See, e.g., M. Lavoie, *Post-Keynesian Economics: New Foundations* (2014); A. Graziani, ‘The Theory of the Monetary Circuit’, in M. Musella and C. Panico (eds), *The Money Supply in the Economic Process: A Post-Keynesian Perspective* (1996) 516.

⁴⁸ See, e.g., Grubb, above n 22; P. R. Tcherneva, ‘Fiscal Policy: The Wrench in the New Economic Consensus’, (2010) 39(3) *International Journal of Political Economy* 24; Smith, ‘American Colonial Monetary Regimes’, above n 22; Smith, ‘Money and Inflation in Colonial Massachusetts’, above n 22.

⁴⁹ See, e.g., Peacock, above n 11; Desan, above n 6, at 37–69.

Law, after all, sets up all the relationships in the story of money's invention. Perhaps most obviously, it defines the contributions that individuals make to maintain their stake in a community. As we have seen, the stakeholder as the governing agent holds a pivotal position because he is the only creditor common to everyone. They owe him 'tribute', 'tithes', 'rents', 'dues', 'fees' for service, 'penalties', or 'taxes'. The extent of those obligations—and thus reach of the centre into the community—depends on the way those duties are interpreted and enforced. Furthermore, law shapes not only the extent but the nature of the obligations. It determines how they are distributed and by what criteria. Taxes or other fees may be widely shared and apportioned in ways the population accepts. Or, they may be harshly levied on weaker members. 'Money' can be a matter democratically engineered or coercively imposed, depending on the infrastructure that supports it.

That is just the beginning: a 'working' money is a piece of legal engineering all the way down. The unit given to certify a contribution takes effect, to give another example, because the stakeholder recognizes it as a claim of service in the hands of its holder. Put another way, the token is a 'liability' that the centre is committed to accept.⁵⁰ To speak of a 'claim' or 'liability' refers to a legal category that defines the content of commitment. Indeed, the most conspicuous disputes involving money arise when a government revises the unit of account it takes in payment, also known as devaluation (or, less frequently, revaluation). The legal issue, as *The Case of the Mixt Money* framed it, is whether public needs justify the monetary change or, by contrast, the sovereign liability should remain constant.⁵¹

The stakeholder himself acts and reacts in ways channelled by his authority. That authority, generically assumed above, takes much more specific shape as societies work out the powers legitimately held by a warlord, king, executive or legislature, judge, bureaucrat, or for that matter, corporate head, or religious leader. To leave the Anglo-Saxon stage for an early American example, colonial legislatures there restructured the imperial constitution when they asserted the authority to issue paper money. As those assemblies spent 'bills of credit' into circulation, they claimed new powers to appropriate on behalf of their polities. Then, they routed the paper back to newly created colonial treasuries when they taxed, cutting the royal governors and their tax receivers out of the action.⁵² In effect, one stakeholder or set of stakeholders replaced another by rechanneling the authority to create money.

In fact, a community determines which goods and services can be alienated, and thus what counts as a 'commodity', when it decides what items or services money can buy. The sale of land, chartered and unchartered, was a complex issue in the second half of the first millennium; feudalism would take its character in part from those conditions.⁵³ Similarly, a contemporary code (AD 880) imposed restrictions on any sale involving 'slaves, or horses, or oxen'. Other provisions required transactions over a certain amount to be witnessed or made only within a given town.⁵⁴ Presumably, transactions involving money would not be

⁵⁰ See, e.g., A. M. Innes, 'What is Money?', (1913) 30 *Banking Law Journal* 377.

⁵¹ For Knapp, the government's authority over the unit of account that it took was the root of its legal power to define money. See Knapp, above n 45, at 39. The argument here, by contrast, locates that legal determination as one of many critical interventions, including the definition of collective obligations and the enforcement of contracts more generally.

⁵² See, e.g., E. J. Ferguson, 'Currency Finance: An Interpretation of Colonial Monetary Practices', (1953) 10(2) *William and Mary Quarterly* 153; J. P. Greene, *The Quest for Power: The Lower Houses of Assembly in the Southern Royal Colonies, 1689–1776* (1972); C. A. Desan, 'From Blood to Profit: Making Money in the Practice and Imagery of Early America', (2008) 20(1) *Journal of Policy History* 26.

⁵³ See Wickham, above n 13, at 314.

⁵⁴ See Law Code of Alfred-Guthrum, repr. in E. Screen, 'Anglo-Saxon Law and Numismatics: A Reassessment in the Light of Patrick Wormald's *The Making of English Law*', (2007) 77 *British Numismatics Journal* 148, at 164 (requiring that the buyer have 'the knowledge of his warrantor,' assumedly as witness); Law Code of I Edward,

enforced if they were improperly made or inappropriately targeted a resource that could not be considered a ‘commodity’. Later societies would decide, notoriously, to allow the sale of Africans. Debate over the sale of free labour continues, with disputes about what constitutes real choice—the option of other employment, a social safety net, equal educational opportunity.⁵⁵ Those debates are joined by a myriad of others, contests over what else is ‘for sale’, from honours to votes, sex to kidneys.

Conversely, while parties can trade without reference to money, that medium carries particular authority in many transactions; it is a privilege that opens up economic exchange. As a product promoted by a stakeholder to mobilize resources within a community, money serves the centre well if it circulates widely and is in increasing demand. Moreover, a stakeholder might independently value the faculty that money offers to expand certain kinds of exchange among subjects or citizens, understanding it as a moral or commercial good. For both reasons—a desire to strengthen demand for a sovereign medium and a determination to support economic exchange among individuals—officials often favour transactions made in money, enforcing them as matters that are good for the whole. That proposition illuminates the norm, which was early adopted by the English common law courts, that the sovereign’s coin ‘counted’ for purposes of paying off an obligation, regardless of changes in metal weight. Indeed, it was the only mode of payment *that* counted. By the High Middle Ages, the writ of ‘debt’ was defined in a way that excluded all pleas but those claiming payment in the unit of account as currently decreed.⁵⁶

The point is that the very definition of what can be ‘sold’ is determined by working out the legal operation of money. The outcome created by keeping money out of some transactions and demanding it for others shapes what we recognize as ‘the market’. When we consider that conclusion in light of money’s formative role engendering exchange in the first place, the market loses its aura of autonomy. Rather, the market has been dependent on its medium, money, from start to finish. And money, it turns out, has been dependent on law, that very human project of decision that defines our obligations, the government’s commitments, its structure, and what we call commodities.⁵⁷

Understanding money as a legal institution opens it to exploration. Rather than a neutral or constant medium, money is a process that has distinctively affected the communities that make it in ways that have changed over time. In closing, we can briefly tour a trio of monetary institutions, each with great stature in the western tradition. Their power and peculiarities demonstrate the impact of money and its legal design.

Consider, for example, the monetary order that included ‘free-minting,’ described above. England for more than five centuries used that method to produce its currency. The decision tied its money supply to a commodity content for coin—the scarce and expensive metal, silver. Because Europe more generally had adopted the same method, competition for silver across the region became a destabilizing force. Sovereigns lightened coin

repr. in Screen, ‘Anglo-Saxon Law and Numismatics’, 148, at 165; Law Code of II Athelstan, in Screen, ‘Anglo-Saxon Law and Numismatics’, 148, at 165.

⁵⁵ See, e.g., A. D. Stanley, *From Bondage to Contract: Wage Labor, Marriage, and the Market in the Age of Slave Emancipation* (1998); R. J. Steinfeld and S. L. Engerman, ‘Labor—Free or Coerced? A Historical Reassessment of Differences and Similarities’, in T. Brass and M. van der Linden (eds), *Free and Unfree Labor: The Debate Continues* (1997) 118.

⁵⁶ See Desan, above n 6, at 83–97; Fox, ‘The Structures of Monetary Nominalism in the Pre-Modern Common Law’, (2013) 34(2) *Journal of Legal History* 138, at 160.

⁵⁷ The aspects of legal decision sampled here only begin to unpack the important legal determinations. We could continue to consider other aspects of money’s legal design, like the kinds of circulating public finance we assume (public bonds, annuities, lotteries), the kinds of private credit we allow (futures, private derivatives), or the limits on negotiability we impose (bills of exchange, promissory notes, claims to collateral securing debt).

surreptitiously in peaceful times to attract more bullion to their mints; they debased money more frantically in times of war, throwing economic activity into tumult as they struggled to keep silver flowing to their mints and thus money flowing to their forces.⁵⁸

The English manipulated their coinage much less than their European counterparts, but that decision created its own problems. While the Italian city-states, through repeated debasements, created low value moneys that supported active trading even at the level of small deals, England's penny remained so powerful that its purchasing power was too large for many transactions. Inhabitants made most everyday exchange on the basis of credit instead. But that borrowing, made to consume instead of invest, left a high proportion of the population vulnerable to debt litigation in hard times. Commodity money created a harsh environment for most of those who used it.⁵⁹

The search for silver led Europeans to expedients that eventually remapped the world: the ventures that took them to Africa and across the Atlantic aimed to find silver and gold, prime among other resources. The contest for control of those resources drove colonial conquest and precious metal extraction with consequences that were tragic for indigenous populations.⁶⁰ Commodity money had another impact on the New World that was transformative at the monetary level: England's attachment to its traditional money led its American colonies to experiment with a whole new kind of currency, a second example on our tour of monetary institutions.

North American settlers innovated a new monetary form because British mercantilist regulation rendered them unable to keep enough silver and gold coin on their shores. Chronically short of ways to support their militias, they began to pay them with paper. Bills of credit were IOUs issued by colonial legislators and accepted back for local taxes. In fact, the basic hypothesis about how communities establish money, proposed above, describes the American experience closely, down to the presence of stakeholders and token money. Provincial assemblies claimed a role as stakeholders and created token money when they inaugurated a fiat currency that had no commodity content. In fact, a more transparent form of tax anticipation money would be hard to find.⁶¹

The innovation had constitutional momentum. Given how essential money creation was, it located the assemblies at the centre of provincial politics. Paper money became an issue that brought people to the polls. Over the course of the eighteenth century, pamphlets reflect an expanding sense of economic self-determination among colonists as well as a building commitment to electoral politics. Legislative power increased, as the assemblies imposed taxes and wielded the appropriation power brought by paper money. When Parliament, after decades of somnolence, reasserted its claim over colonial revenue, the effect was inflammatory. The American slogan, 'No taxation without representation', takes on new meaning in a monetary light: Americans were defending their right to shape their own political economies by controlling currencies—currencies they well understood to depend on local authority over taxation—when they rebelled.⁶²

⁵⁸ See C. M. Cipolla, 'Currency Depreciation in Medieval Europe', (1963) 15(3) *Economic History Review* 413; Spufford, above n 14, at 289.

⁵⁹ For dimensions of these dramas, see Spufford above n 14; Sargent and Velde, above n 36; M. Kowaleski, *Local Markets and Regional Trade in Medieval Exeter* (1995); N. J. Mayhew, 'Population, Money Supply, and the Velocity of Circulation in England, 1300–1700', (1995) 48(2) *Economic History Review* 238; Desan, above n 6.

⁶⁰ M. De Cecco, *The International Gold Standard: Money and Empire* (1984).

⁶¹ See generally L. V. Brock, *The Currency of the American Colonies, 1700–1764: A Study in Colonial Finance and Imperial Relations* (1975); Ferguson, above n 52.

⁶² See, e.g., E. J. Ferguson, *The Power of the Purse; a History of American Public Finance, 1776–1790* (1961); J. A. Ernst, *Money and Politics in America, 1755–75: A Study in the Currency Act of 1764 and the Political Economy of Revolution* (1973); Desan, above n 52.

The early American system created money that was just as quirky as its free-minted predecessor. Because fiscal activity provided the only source of the paper money, the colonial medium ebbed and flowed sharply as provincial governments spent and taxed. That fluctuation disrupted economic growth and led Americans to experiment with ways to make money more available for private exchange. Just as in commodity money regimes, governments engineered methods to supplement the money supply. Rather than selling coin to inhabitants, they attempted land banks and expansions of public spending, strategies that reinforced the populist culture of early America.⁶³

Other problems were more explosive, particularly the susceptibility of colonial tax anticipation currencies to lose value if participants began to doubt the government's ability to tax. At times of exigency—the Revolution for example—officials found it almost impossible to collect revenues, and their moneys eventually depreciated. Some commentators, including Benjamin Franklin and John Adams, saw the loss of value as an inflation tax that inevitably and perhaps appropriately spread the costs of the War. Others, including Alexander Hamilton, understood devaluation as a national default.⁶⁴ The decline of the continental dollar put the controversy over money's form at the heart of debate over the United States Constitution.

Americans would ultimately choose another candidate for their monetary order altogether; it provides the last design alternative sampled on our tour. Rather than free-minted coin or tax anticipation money, bank issued currency would become the major money form in the United States and in much of the modern west. The ascendance of bank issued currency, a revolution in its own right, returns us in a curious way to Locke. The philosopher approached money as a matter that should flow from private agreement. A similar politics informed the decision to involve private investors in money creation.

Pioneering modern bank money in the 1690s, the English government licensed the Bank of England to produce notes representing the sovereign unit of account. The privilege was novel; both free-minted coin and legislatively issued tax anticipation currency had always remained government monopolies. Now, the government borrowed from a group of investors, lodging public debt with the enterprise and taking its loan in bank currency that promised to pay specie on demand. The Bank of England kept a store of coin on reserve; later bank systems would also use government bonds or bills of credit as an asset.⁶⁵

The English government spent in Bank notes and, from early on, accepted those notes for taxes. The government could simply set the notes it collected off against its outstanding debt with the Bank. Given that arrangement, Bank notes remained a sovereign liability; in

⁶³ Land banks offered a new way of tying popular demand for cash to a supply designed to offer security. Rather than putting up silver, people put up land as collateral for notes and paid interest on their loans. See, e.g. T. Thayer, 'The Land-Bank System in the American Colonies', (1953) 13(2) *Journal of Economic History* 145; T. Bouton, *Taming Democracy: 'The People', The Founders, and the Troubled Ending of the American Revolution* (2007); R. Lester, 'Currency Issues to Overcome Depressions in Pennsylvania, 1723 and 1729', (1938) 46 *Journal of Political Economy* 324; R. Lester, 'Currency Issues to Overcome Depressions in Delaware, New Jersey, New York, and Maryland, 1715–37', (1939) 47(2) *Journal of Political Economy* 182.

⁶⁴ See B. Franklin, 'Remarks and Facts Relative to the American Paper Money', *Pennsylvania Chronicle* (25 May–1 June 1767); J. Adams, 'Letter to Comte de Vergennes, 22 June 1780', in F. Wharton (ed.), *The Revolutionary Diplomatic Correspondence of the United States* (1888), vol. III, 805; A. Hamilton, 'Report of the Secretary of the Treasury, 14 December 1790', in C. B. Bickford and H. E. Veit (eds), *Documentary History of the First Federal Congress of the United States of America*. Vol. 4: 4 March 1789–3 March 1791 (1986) 174.

⁶⁵ See An Act for Granting to Their Majesties Several Rates and Duties upon Tonnage of Ships, (1694) 5 W. & M., C. 20, S. 19, *Statutes at Large* (3rd edn, 1768–70), vol. 3 561; W. Paterson, *A Brief Account of the Intended Bank of England* (1694); J. H. Clapham, *The Bank of England: A History* (1970). For a detailed reconstruction of the way Bank of England notes became the unit of account, see *Making Money*, above n 6, at 295–329, 360–89. For an example of a bank built on government debt, see *Briscoe v. Bank of Commonwealth of Kentucky*, 36 U.S. 257 (1837).

fact, they could be theorized as simply another form of tax anticipation money. But the new architecture mattered enormously. It institutionalized the government's commitment to tax, formalizing it in the figure of a debt to investors that needed to be repaid. Those investors constituted an elite lobby at the political level and asserted contract rights to payment at the legal level.⁶⁶

Even more remarkable, the mechanism pacing money creation was now a financial one. Bank notes issued when the government decided to borrow and the investors agreed to lend. The government paid for the arrangement, legitimating a profit incentive as the appropriate driver for money creation. Almost contemporaneously, the government began selling circulating bonds to the public. Both bank investors and bond holders drew 'interest'. Far from the vice it had represented through the medieval era, self-regarding calculation came to seem an act that could also benefit the public.⁶⁷ Modern money, as it developed, was restructuring the way government operated, politics played out, and people conceptualized their own actions.

The pattern would take on enormous significance when it spread. Over the course of the following century, other governments established national banks of issue. As they did, they assimilated the operating principles that the English had developed.⁶⁸ The global order now shares, then, an approach to money creation that appoints bankers to pace the process, identifies profit-driven calculation as the appropriate compass, and prioritizes the rights of creditors over a more diffuse public. That cluster of characteristics undergirds modern capitalism.⁶⁹

The everyday face of the system is one of its most noteworthy characteristics. After establishing the Bank to lend to the government, the English allowed it to lend by bank currency to individuals. The practice expanded, when the government and those following its example granted that licence to commercial banks. In the modern world, those banks decentralize the issue of state-denominated units of account, creating the money supply as they allocate credit. Highly integrated into the legal design of money, commercial banks depend on national payment systems to clear and on central banks to provide support as lenders of last resort. Working according to the profit centred logic modelled by the Bank of England, they charge individuals a fee for creating money.⁷⁰

The activity of commercial banks effectively supplements the money supply, analogous in that sense to the coin available for purchase under free-minting, and the notes issued by colonial land banks. The scale of production, however, has increased enormously. By the end of the twentieth century, and using the English pound as an example, deposit creation by commercial banks had helped expand the money supply in real terms to about sixty-five times its size when the Bank opened.⁷¹ In the last two decades, that abundance of liquidity

⁶⁶ See *The Case of the Bankers* (1696–1700), in T. B. Howell (ed.), *A Complete Collection of State Trials Court* (1812), vol. 14, 1, at 64. For the influence of bank creditors, see B. G. Carruthers, *City of Capital: Politics and Markets in the English Financial Revolution* (1996).

⁶⁷ See Desan, above n 6, at 266–94; H. Roseveare, *The Treasury, 1660–1870: The Foundations of Control* (1973), at 22–25. Albert Hirschman recaptures the earlier disapprobation attached to 'interest' and the timing of its transformation in his history. A. O. Hirschman, *The Passions and the Interests: Political Arguments for Capitalism Before its Triumph* (1997).

⁶⁸ See, e.g., C. Goodhart, *The Evolution of Central Banks* (1988); C. Goodhart, *Bank for International Settlements, The Role of Central Bank Money in Payment Systems* (2003).

⁶⁹ See Desan, above n 6.

⁷⁰ See, e.g., McLeay et al., above n 33; Wray, *Modern Money Theory*, above n 47; P. Mehrling, *The New Lombard Street: How the Fed Became the Dealer of Last Resort* (2011); M. Lavoie, 'The Monetary and Fiscal Nexus of Neo-Chartalism: A Friendly Critique', (2013) 47(1) *Journal of Economic Literature* 1.

⁷¹ See Desan, above n 6, 3. Deposit creation by commercial banks now accounts for more than 95% of the bank-based money supply, compared to a monetary base of 5% or less. See J. Ryan-Collins, *Where Does Money Come From?* (2011), at 23.

has been enhanced further, almost two-fold in the shadow banking sector, an improvised industry that produces short term claims which are marketable enough to act as ‘near money’.⁷²

As the Financial Crisis of 2008 demonstrated, the issues raised by the new process match the magnitude of the money and near-money that it creates. The debate over the power and responsibilities of banks and shadow banks can be understood as a struggle to find new ways to tie money creation safely to a stakeholder’s unit of account—today’s sovereign currency. Those buying money still put up material resources, tying up collateral in the form of houses or earning potential. They still pay a fee, demonstrating their desire for a resource that offers cash services. The government’s new agents still produce tokens, issuing deposits instead of coin. But there the similarity ends. The production of money is more prolific—it rests on the representation of future earnings rather than the acquired capital of bullion. It is also more fragile—it fails more frequently because that promise is harder to cash out than a pound of silver.

The Financial Crisis dispelled the notion that money is a simple matter, one that comes spontaneously into effect. In 2008, responsibility for the system devolved onto the taxpaying public, the collective whose contributions ultimately undergird it. In the years that followed, issues of money design remain front-page news, rightly enough. The role of reserves, capital requirements, and portfolio management; the reach of deposit insurance; the relationship of financial institutions to lenders of last resort—they form the vocabulary of reform in a world with bank based money. All are issues of legal process. As we make the legal decisions, we will (re)make the money.

⁷² See, e.g., G. Gorton, *Slapped by the Invisible Hand: The Panic of 2007* (2010); M. Ricks, ‘Regulating Money Creation After the Crisis’, (2011) 1 *Harvard Business Law Review* 75; Mehrling, above n 70.

