

## Origins of Money: Debt and Measure of Value

### Debt and sacrifice

The historical importance of tax debts is, as we have seen, the basis for state theory; but it is also argued that money originated in more elementary social obligations that constitute one of the fundamental social bonds between the individual and society (Aglietta and Orlean 1998). The level of payment for such debts is specified by a 'hierarchy of value' by which an individual's position and status in society were established (Aglietta and Orlean 1998: 21; see Andreau's analysis of the Roman census, 213–52). Such hierarchies are historically prior to the market, considered as a mechanism for producing prices. It is only with the separation of the economic sphere from the rest of society in the modern era that money takes on its historically exceptional role in representing private property and private contracts (Aglietta and Orlean 1998: 15).<sup>3</sup> Money became a general medium of exchange only when the economy became detached from the rest of society.

The primordial debt is that owed by the living to the continuity and durability of the society that secures their individual existence. The ultimate discharge of this fundamental debt is sacrifice of the living to appease and express gratitude to the ancestors and deities of the cosmos (Aglietta and Orlean 1982).<sup>4</sup> In addition to human sacrifice, 'debt payment' also took the form of sacrificial privation. Scarce and valuable materials or food would be given up to a 'brotherhood' of priests who mediated between the society and the cosmos.<sup>5</sup> Such hypotheses must remain conjectural, but there is considerable indirect etymological evidence. In all Indo-European languages, words for 'debt' are synonymous with those for 'sin' or 'guilt', illustrating the links between religion, payment and the mediation of the sacred and profane realms by 'money'. For example, there is a connection between money (German *Geld*), indemnity or sacrifice (Old English *Geild*), tax (Gothic *Gild*) and, of course, guilt (Hudson 2004). Value at this stage of social development is the value of society to its members, as measured by sacrifices of various kinds. But we are still a considerable distance from the identification of an abstraction of these values as a scale, later represented in universally equivalent money. The problem involves attempting to fill in the intermediate stages in the process of the progressive abstraction of money from a substantive fixed 'payment', in the form of an offering of an institutionally specific sacred debt, to decontextualized symbolic tokens denominated in money of account.

### Measures of value and money of account

Unilateral debt, unlike the neutral medium of exchange in commodity theory, is inherently a relation of social inequality. Members of early human society were subordinated by their debt to ancestors, deities and, eventually, their earthly representatives in the priesthood. But it is impossible to say whether the debts of human and material sacrifice were borne equally by all members of society. Were children of all statuses potential sacrificial victims? Did all members have to give the same amount of food sacrifice? In those societies with little or no surplus, where the distribution of the subsistence resources was governed by norms of hospitality and reciprocity, no scale for measuring differential payments would have been needed.<sup>6</sup> In other words, a fairly well-developed division of labour and systematic inequality would seem to have been the necessary basis for a scaled measure of value by which to calculate differential debts to society. 'Primitive communism' would have had no use for 'money' – either as a precise measure of value or as a generalized abstract means of payment. (See the account of the transition from egalitarian tribal to stratified Pharaonic Egypt from 4000 to 2500 BC and the development of money in Henry 2004).

Broadly speaking, there are two theories of the origin of measures of value that confer 'moneyness' on the various forms. The first may be subsumed under a general theory of public debts to society, as outlined above. Here measures of value are traced to the *Wergeld* institutions by which penalties were calculated for the expiation of the transgression of society's values. The second approach locates the use of money of account in the need to calculate economic equivalencies of goods in the agrarian command economies of the ancient Mesopotamian and Egyptian empires. The inadequacy of the historical written record again creates a significant problem. The best evidence for *Wergeld* comes from the European tribes of the fifth and sixth centuries AD – that is, several millennia after the use of money of account recorded on clay tablets in ancient Mesopotamia. However, there is also some evidence for *Wergeld* payments at this earlier time (Hudson 2004). It would seem reasonable to conclude that the codification of public debts in *Wergeld* institutions was typical of human societies before the ancient Near Eastern empires. Here, with the development of number and writing, the calculation of social obligations was transformed into a means of measuring the equivalencies between commodities.

### *Wergeld* and money of account

'Behind the phenomenon of coin is the phenomenon of money, the origins of which are not to be sought in the market but in a much earlier stage of communal development, when worth and *Wergeld* were interchangeable terms' (Grierson 1977: 33). *Wergeld*, or 'worth payment', was a means of compensating for injuries and damage in communal or tribal societies as an alternative to socially and economically debilitating blood feuds (Grierson 1977: 28). As argued in chapter 1, the concept of 'money's worth' could not have originated directly from the exchange of commodities.<sup>7</sup>

'The conditions under which these laws were put together would appear to satisfy much better than the market mechanism, the prerequisites for the establishment of a monetary system. The tariffs for damages were established in public assemblies. . . . Since what is laid down consists of evaluations of injuries, not evaluation of commodities, the conceptual difficulty of devising a common measure for appraising unrelated objects is avoided' (Grierson 1977: 20-1).

This analysis lends itself to a Durkheimian interpretation whereby *Wergeld* may be seen as a 'collective representation' for which the analogue is the structure of society, as implied in the above discussion of primordial debt and sacrifice. *Wergeld* expressed the two meanings of 'worth' that derive from the two basic elements of social structure: the utilitarian and the moral. Again, there is compelling etymological support for this interpretation. For example, *Geld* originated from *Vergeltung*, which implies the settling of scores and revenge (Einzig 1966: 379); and *shilling* from *skillan*, which means killing or wounding (Simmel 1978 [1907]: 357). The construction and imposition of indemnity schemes for functional impairment caused by damage, injury and loss to individuals, groups and even society at large could be imposed despotically, but would be more effective if accorded legitimacy based on a value consensus. Moreover, society's moral order is inextricably bound up with the evaluation of functional or utilitarian 'worth'. In the absence of unequivocally objective measures, a hierarchy of status is required to rank the functional contributions to the operation of society. Consequently, *Wergeld* was inevitably a matter of injury and insult. For example, it 'cost four times as much to deprive a Russian of his moustache or beard as to cut off one of his fingers' (Grierson 1977: 20). Loss of face was literally more important than some small loss of function. Moreover, it is quite clear that the expiation of the culprit was not intended to compensate precisely for destroyed functional value, but also involved punishment for the transgression of the values of the symbolic and sacred realms.

Of course, these arguments are simply a restatement of the familiar sociological critique of Adam Smith's primordial market of truck and barter – that is, the theory in which society's basic foundation is the advantaged interdependence of utility-maximizing individuals. However, ontologically, society is a moral community before it is a market.<sup>8</sup> *Wergeld* symbolically represented society's two faces. On the one hand, it attempted to quantify the functional contribution of social roles by the imposition of payments for the loss or impairment of the individual incumbents. On the other hand, these scales were informed by a codification of the values without which the attribution of functional worth to society would have remained anomic and anarchic. There would have been no means of resolving claims, counter-claims and 'blood feuds'. In other words, money has its origins in law.

*Wergeld* codified elements of social structure into a hierarchy of value, and thereby transformed them into elementary moneys of account. Payment would originally have been in terms of valued objects that could be standardized by being counted. This might be 'countable-usable (slaves, cattle, furs, fruit) or countable ornamental (teeth, shells, beads)' (Grierson 1977: 33), but it is the countability that transforms the valuable object into money of account. A next stage involved the measurement of the equivalencies between the objects that were the basis of the measure of 'worth' in the 'worth payment' (cattle, grain, etc.) and other objects and resources in the society.

### Standards of value and equivalencies

Three ideal types for allocation of economic resources may be identified: reciprocity, redistribution and market price (Polanyi 1957).<sup>9</sup> The Mesopotamian and Egyptian empires (c.3000 to 500 BC) occupy the significant transition in human history when the organization of agriculture, based on the control of irrigation, secured freedom from subsistence. Sharing meagre resources according to norms of reciprocity and hospitality gave way to the taxation and redistribution of a surplus.<sup>10</sup> These were the first 'economies' in the sense that material life was now produced by a distinct sector of society with a division of labour – but it was not a 'market' economy. Almost the entire means of production were held by the palaces and temples, which developed money accounting to organize and manage agricultural production and its redistribution. The basic link between society and the sacred was mediated by obligation and taxation (debt) and controlled by the temple priesthood. Political, economic and ideological control was centralized and exercised through the money of account.

The money-accounting system combined the various elements of social technology (means) and social practice (social relations) that had been slowly developing. First, a scale for measuring value, based on the counting of debt payments in hierarchically organized society, was already available. Second, clay tokens were used to represent items of agricultural surplus (grain, oil) and units of work (time or production). This elementary bookkeeping was the likely basis for writing. The use of clay tokens as representations of goods involved a conceptual leap in which each token was endowed with a specific meaning that could be understood independently of the context to which it originally referred (Schmandt-Besserat 1992: 161). For example, notches on tally sticks could not be used to distinguish different objects, and were consequently specific to each transaction. As the sign-tokens could each represent a different object in the abstract, it was possible to manipulate the data. The total production of dates, for example, could be calculated with a single sign that could refer to ten or more date sign-tokens in the abstract. Third, these tokens could also replace the payment in actual kind of tribal obligations and debts to the ruling class of priests and chiefs.

It is probably at this juncture that the link was made between token measures of material values (goods) and precious metals. Gold and silver and an accumulation of tokens of indebtedness were all symbols of sovereign and priestly power and status. The integration of the two – that is, precious metal and debt tokens – was probably a step in the development of forms of money that culminated in coinage. The metals were perfectly durable, and in the case of gold did not even tarnish with age; they were, therefore, excellent representations of the eternity of the cosmos. Precious metal tokens are to be found among the funerary goods in graves of the ruling classes in these early hierarchical societies (Schmandt-Besserat 1992: 171). Thus, by 3000 BC in the agrarian command economies, counting and writing were integrated in a system of money accounting to represent goods, debts, symbols of status and, most importantly, the mediating link between the sacred and profane. It is of the utmost importance to note that the value of precious metals derives, in the first place, from their use as symbols of power and prestige. Even when coinage was eventually introduced in the seventh century BC, pure gold coins were primarily status symbols and stores of value for the elite, rather than means of payment and media of exchange.

Mesopotamia's monetary accounting system was based on the value equivalence of the shekel weight of silver (240 barley grains, or 8 g) and the monthly consumption unit of a gur (about 1.2 hectolitres) of barley. It seems probable that this equivalence was based on the

redistributed barley ration necessary to sustain a labourer and his family. The developmental sequence begins with *counting* grains of barley, not weighing either barley or silver; neither was it necessary for the talent and shekel to be minted. Rather, 'it was sufficient that these units should be state-created in the sense that it was the state which defined ... what weight and fineness of silver would ... satisfy a debt or customary payment in talents or in shekels of silver' (Keynes 1930: 12–13). In short, these command economies had moved from simple counting with, say, beads, teeth or head of cattle to counting an authoritatively declared standard of value measured by weight. The units referred to the weights that were used to make calculations. The magnitude of these measures of value should also be noted; the smallest – a single shekel – was the equivalent of a month's barley ration. These denominations of the money of account were designed for the calculation of large quantities of goods and debts, not as media of exchange in the market. Actual payment in silver by weight was not commonplace, especially in early Babylon; that is to say, silver bullion was not a proto-currency in the modern sense. Rents and taxes owed to the secular and religious authorities were calculated in the money of account and standard of value, but were paid in commodities and labour services (Goldsmith 1987: 10). The pivot of the system was the crop rental relationship between the temples and palaces and the farmers. Rents could be paid, at the official silver rate, in barley, which was then redistributed by the central temple and palace authorities to other workers. All other prices were similarly fixed, which served to stabilize the public-private leasing arrangements and the distribution and sale of goods to the rest of the economy (Hudson 2004; Polanyi 1957: 20–1, 264–5).<sup>11</sup> The development of coinage did not occur for a further 2,000 years.

The economic systems of the ancient Near Eastern empires (Mesopotamia, Egypt and the Indus plain, from the third to the middle of the first millennium BC) were not organized and integrated by the price mechanism of the market (Polanyi 1957; Weber 1981 [1927]; Mann 1986). However, despite the absence of freely circulating media of exchange, it is misleading to conclude, as do all conventional accounts, that 'these countries and millennia were essentially non-monetised' (Goldsmith 1987: 10). On the contrary, money was the very means by which society was organized and managed by a hierarchy of value (money of account) which measured the flows and allocation of resources and the pivotal temple-farmer, creditor-debtor relation. Poor or failed harvests prevented the repayment of rent debts in barley, and its subsequent redistribution could trigger crises. These were overcome by simply writing off the debts (Hudson 2004). The

network of debts was a social bond structured by the money of account and standard of value. However, the debts were not generally transferable as they are in modern capitalism's banking system.

### Ancient banking

The question of ancient banking occupied an important place in the primitivist-modernist debate that followed the *Methodenstreit* in the social sciences (see n. 9). Valuable commodities, such as grain and precious metals, were stored in the temples and palaces of the ancient empires, and receipts for these deposits were used in the transfer and clearing of debts within the state elite. Also the temples, palaces and, exceptionally, independent families were able to lend at a rate of interest. The economic theorists and their modernist and formalist followers argue that these financial operations were no different from modern practices and represent the 'invention' of banking (see Heichelheim 1958 [1938]; Baskin and Miranti 1997). On the other hand, the primitivists and substantivist historians and anthropologists have maintained that these financial practices were pre-modern, and could be understood only in the context of social structure in which they were 'embedded' (Polanyi et al. 1957). The equivocal nature of the archaeological evidence permits quite free and fanciful interpretations. As if to demonstrate the timeless and almost natural character of capitalism, many guides and commentaries on modern sophisticated financial techniques make the implausible claim that they can be traced directly to Babylon (see, for example, Dunbar 2001: 24-6).<sup>12</sup>

In the absence of coinage, most financial transactions in Babylon were based on the 'transfer and assignments of credits' organized by the temples and palaces, and were based on their control of the stores of grain (Weber 1981 [1927]: 254; Innes 1913, 1914). The extent to which the clay tablet records refer to private transfers between individual depositors or merely to budgetary redistribution by the bureaucracy is not at all clear. But all the evidence leads to the conclusion that private transfers outside the command economy comprised an insignificant part of total financial transactions. However, more extensive evidence does exist for a sophisticated giro system, based on the deposits in the granaries of Ptolemaic Egypt, for making transfers of value in writing denominated in money of account (Davies 1996: 51-4). But money's main role was in tax collection, bureaucratic auditing and accounting control, and the distribution of ration tokens.

Furthermore, the credit transactions differed from modern capitalist banking. First, lending was controlled at very high rates of interest

by modern standards (20-33 per cent), and was only rarely private (Goldsmith 1987: 14; Weber 1981 [1927]: 256). The few firms operating in the middle of the first millennium BC in Babylon (the Egibi family) or Nineveh (the Murasu family) were not banks in the modern capitalist sense - although they have been frequently described as such. They did not receive deposits, and they combined money lending with many other activities (Goldsmith 1987: 14). As Weber warns in his analysis of pre-capitalist banking, 'one must guard against thinking in terms too modern... [and] one must not think in this connection of bank notes in our sense, for the modern bank note circulates independently of any deposit by a particular individual. In contrast, the Babylonian bank notes or tickets were merely a means for the more rapid and secure transmission of payments between depositor-customers' (Weber 1981 [1927]: 254-5). As we noted in Part I, and will examine in more detail later, the issue and circulation of bank notes independently of any particular individual's deposit or, indeed, of particular aggregate level of deposits requires the impersonal or universalistic transferability of debt as a means of payment. This social relation was entirely absent from both the ancient and, as we shall see, classical economies.

Giro clearance of mutual indebtedness did occur on a small scale within the merchant classes (Innes 1913, 1914; Hudson 2003; Henry 2004). But the main temple-farmer debts were personalized and could not be freely transferred to third parties for the payment of debt. Moreover, the standard of value (silver by weight) was not embodied in a transferable and portable form that was independent of a particular debt. This is precisely what coinage was to do. The issuers' token of debt - payment for goods and services - became detached from a particular transaction and furthered the progressive universalization and abstraction of money.

### The Early Development of Coinage

For two millennia after the seventh century BC, 'money' was identified with coin, and the intellectual confusion over the nature of money began. In the commodity theory of money the exchange-value of the money-stuff (precious metal) determines its purchasing power. Coins embodied a measure of value within a conveniently portable medium of exchange and acceptable means of payment (settlement). However, Keynes (1930: 11) did not 'think that the act of coinage effected so significant a change as is commonly attributed to it'. To be sure, coin is not the origin of money, but it was undoubtedly significant.

The first true coins date from c. 640 BC in the Near Eastern kingdom of Lydia (western Turkey) (Davies 1996: 63). However, they were extremely irregular in weight and in the composition of the alloys, and did not possess any numerical indication of their value (Innes 1913: 380). That is to say, there could have been no stable relationship between the metallic content and the purchasing power value. Within half a century these lumps had been developed into rounded pieces, or 'coins', stamped with the lion's head symbol of the Lydian dynasty. From here, coinage spread to Ionia and the Greek mainland.

How is this development to be explained? Coinage did of course ease some of the 'inconveniences' of trade, as commodity-exchange theory argues; but it cannot be explained in this way. In the first place, barter continued to be a convenient and efficient means of conducting large-scale trade of the kind that occurred between the command economies of the ancient Near East.<sup>13</sup> Second, the small commercial sectors within these states recorded credit relations on clay tablets, which were periodically settled with various means of payment – barley, silver by weight, etc. Arguably, this was a more efficient means of reducing transaction costs. (It was much safer, as the symbols of credit were specific to the transactions and were not in danger of being stolen.) Despite the presence of all the technical means for its development – money of account, standard of value and payment in bullion – coinage did not come about. In fact, it is difficult to see how Mesopotamia and Egypt might have benefited by the integration of the functions of money in coinage. The opposite effect would have been more likely; economic co-ordination by coinage might have eroded the bureaucratic control of the redistributive system, as indeed it did later in the city-states of classical Greece (Kurke 1999). Coined wealth can be more readily appropriated and stored as a means of evading a central authority. It is difficult to discern the conditions within the ancient empires that might have favoured its emergence. To this extent, at least, the Polanyi school was correct in arguing that the money of the ancient empires was 'embedded' in their social structures.

The decisive factor in the evolution of coinage was the result of changes in the geopolitical structure of the ancient Near East. In the wake of the disintegration of the empires towards the end of the first millennium BC, myriad smaller kingdoms and city-states emerged. It seems probable that two subsequent developments culminated in the emergence of the earliest coins. First, unlike the later collapse of the Roman Empire, the political changes were not sufficient to seriously inhibit trade. (Indeed, continued economic growth and trade might well have increased with the loosening of the command and redistri-

bution systems.) One response was the increased use of convenient and useful media of exchange in the form of peasant 'tool money' (Grierson 1977). Metal tools and stamped bars of useful metals, as highly liquid tradable goods, were used extensively around the eastern Mediterranean from about 1000 BC. It is easy to see how they could be taken to be to 'proto-coinage' (Mann 1986: 194), as outlined in the Mengerian account of money's origins. And it is possible that the exchange of useful and valuable metal outside the command economies played a role in the evolution of coinage. But it must be borne in mind that without attachment to a money of account, these media remained part of barter exchange. The exchange ratios of tools, metals and other commodities would have varied by transaction, and not in relation to the common denominator of a monetary unit. None the less, it would seem likely that such trading practices increased the use of liquid stores of value, and were a direct result of the needs of an emerging market system.

The critical step in the integration of value by weight – as in the shekel weight of silver – with countability and portability came with the world's first large-scale wage labour – mercenary soldiers (Cook 1958; Kraay 1964). The same peasant-farmers who were part of the increasingly dense trading networks after the disintegration of the empires were also the mercenary 'hoplite' troops whose new tactics and organization led to a demand for their services throughout the Mediterranean and the Near East. Large mercenary armies required a steady supply of a portable means of payment that could be used, in the process of expansion and conquest, outside its jurisdiction of origin. However, as sovereign monetary spaces were unstable, and the fineness and weight of the metal uncertain, a coin's value in exchange could vary quite considerably. Consequently, there would be little point in assigning and stamping coins with numerical symbols. In other words, early coins represented a transition between money (fixed by money of account) and a convenient medium of exchange with a variable exchange rate.<sup>14</sup>

It would be no exaggeration to refer to a 'military-coinage complex' in the second half of the first millennium BC. After his accession to the Macedonian throne in 336 BC, 'Alexander had need of a prolific and stable coinage' when he embarked on the creation of a vast empire that stretched from the eastern Mediterranean across Asia Minor to India (Hammond, quoted in Davies 1996: 80). In the early stages, his coins came from Macedonia and Greece, but captured booty, foreign mints and mines eventually were needed to meet the enormous costs of paying his soldiers. At the peak of its activity in Asia Minor, Alexander's army received about 120,000 drachmas per day, which

required over half a ton of silver. In addition, the troops' outstanding debts to civilians were also met, and on one occasion this required 200 talents – that is, over one million drachmas (Davies 1996: 81).

The 'multiplier' effect of these incomes and the stimulus to economic growth of military activity in general have been noted frequently (Davies 1996: 83; see also Mann's (1986: 150) reference to 'military Keynesianism'). But the consequences of the connection between conquest, the consolidation of states through taxation, and the creation of sovereign monetary spaces should also be noted. With the imposition of taxation after conquest, the coins that the defeated people had received from the soldiers, in exchange for goods, would find their way back to the issuer. Now, states could indirectly influence labour towards preferred activities by setting a tax rate and paying for goods and services in the coin acceptable for tax payment. In many circumstances this was far more cost-effective than the use of slavery or forced labour, as European colonial powers rediscovered in the nineteenth century (Wray 1998). The creation of taxation-based imperial monetary spaces had a further impact on traditional non-market economic relations such as local barter and customary and gift transactions using a commodity such as grain. This would have had the effect of breaking down the ethical dualism of reciprocity, charity and hospitality inside the community and the distrust, exploitation and cheating of outsiders which had prevented the growth of large spheres of impersonal market exchange (Weber 1981 [1927]: 356).

Although coinage was a jealously guarded instrument of state, it inevitably enabled economic power to escape from state control through the massive injection of portable abstract value into the relatively loosely integrated Greek and, later, Roman empires. The possession of liquid economic power enabled the control of economic activity outside both traditional households and command states, and, consequently, economic classes made their appearance (see the general discussion in Mann 1986, especially 216–28).<sup>15</sup> However, in comparison with the modern capitalist world, this escape of economic power by means of coined money was limited; it was restricted to the simple accumulation of value in the form of coin, the supply of which remained under state control. Such accumulation was the basis for money lending, which appeared from the late fifth century BC in Athens. Again, this has raised the question of the existence of early banking. The arguments presented above in relation to Babylon apply equally to Greece and Rome. Modern capitalist banking, as opposed to money lending and the giro clearance of debts, involves the creation of deposits through the act of lending, and there is

no evidence to suggest that this occurred. In any case, the business of accepting deposits for safe keeping and extending loans was negligible (Goldsmith 1987: 28; for an alternative, modernist view of classical Greek banking based on orthodox economic theory, see E. Cohen 1992).

### The Roman Monetary System

At the death of Augustus in AD 14, Rome's "sound money" was accepted over an area larger than any before or after until the nineteenth century' (Goldsmith 1987: 36). Half the national product was monetized, and all imperial trade 'was conducted entirely on a cash basis' (Goldsmith 1987: 47). The Roman economy was driven by the state's activity; but, because it owned a far smaller proportion of resources than the earlier Mesopotamian and Egyptian empires, direct control was much weaker. On the other hand, coinage coupled with enough coercion and administrative organization to collect taxes helped considerably in extending the empire. 'Money taxes were exacted in the core provinces (such as Gaul, Spain and Asia) and were mostly spent in Italy or on army pay in the frontier provinces; core provinces had to export goods to the centre in order to *buy back the money with which to pay the taxes*' (Hopkins 1978: 94, emphasis added). But this was not simply a fiscal relation, as some have argued (Crawford 1970: 46). Rome had to buy its supplies privately, and, consequently, its issue of coinage also had an important economic multiplier effect. There is evidence to suggest that more coins were issued than were needed for immediate purposes, in order to stimulate production and exchange, in a proto-Keynesian fashion. During the first phase of imperial expansion, expenditure released far more coins into the provinces, via the superb network of roads, canals and sea routes, than were collected back in taxation.<sup>16</sup>

Unlike the early capitalist states of sixteenth- and seventeenth-century Europe, Rome did not sell bonds to its wealthy citizens to finance expenditure; that is to say, there was no 'national debt'. The Roman state's 'debt', so to speak, consisted in liabilities issued in the form of coin for payment for goods and services. Consequently, any disruption of the credit-debt relations of the 'coinage multiplier' could produce a crisis. The system depended on the maintenance of three interdependent elements: the control and inflow of bullion, an effective system for tax collection and sufficient economic activity (mainly the state's) for the generation of income in coin to meet tax debts. Eventually each was disrupted to an extent that threatened the

continued reproduction of reciprocal money relations. Imperial 'over-reach' affected both the supply of precious metals and the collection of taxation. The inability fully to impose money taxation in the imperial hinterland inhibited the extension of relations between the fiscal and economic elements of the 'coinage multiplier' (see Weber 1981 [1927]: 60). Outside the coastal trading regions of early imperial expansion, manorial and feudal relations persisted, and were resistant to production for the market that elsewhere was driven by the need to acquire Roman coins for payment of taxes. Over several centuries, the balance between, on the one hand, the returns to Rome of both marketed goods and services and, on the other hand, taxes and the expenditure on military expansion gradually shifted from positive to negative. Other factors, such as bad harvest and slave revolts, were involved, but the difficulty of reproducing the relations of the monetary system had an independent effect on the eventual fall of the Roman Empire. With a dwindling income, the state was unable to finance the defence of the unproductive outposts against the barbarian invasions.

Since it was advanced by Gibbon in the eighteenth century, the idea that the 'decline and fall' of the Roman Empire was at least accelerated by inflation produced by the debasement of the coinage has been widely accepted. Both occurred, but they were not the direct cause of gradual imperial decline and fall; they were, rather, symptoms of a more fundamental disturbance of monetary relations, as outlined above. Despite its inability fully to extend fiscal relations to the hinterland, first-century AD Rome nevertheless found it difficult to secure an adequate supply of precious metal to maintain the required increases in coinage to meet its expenditure and tax demands. It became necessary to spread the metal, especially silver, more thinly, and this set in train a slow but progressive dislocation of the money of account and standard of value.<sup>17</sup>

First, there was a partial dissociation of the means of payment from media of exchange. Rome used two precious metal means of payment. The gold aureus was used mainly as a store of value, and for very large purchases such as land. The silver denarius coins were for taxation and other significant purchases. These were supplemented by base metal media of exchange – the sestertius of copper, zinc or tin and the quadrans of copper – for the routine purchase of small items.<sup>18</sup> The latter were not accepted in payment of taxes, and were not good stores of value.

Secondly, from the second century AD onwards, the state decreed, by fiat, the rates between the gold and silver coins, and began continuously to debase the silver denarius. (Unlike the capitalist states of modern Europe, Rome did not practise 'hylophantism' – that is, it

did not promise to redeem coins for bullion at a fixed rate.) Eventually, the gold aureus became undervalued in relation to silver, and an increasingly poor store of value in its money form. Money and its value had become determined, in part, by a struggle between, on the one hand, the state bureaucracy and military commanders and, on the other, the landowners. The conflict was rooted in the opposition between the state's fiscal need of sufficient means of payment for taxation and military expenses in silver denarii and the agrarian ruling class's use of gold, either bullion or coined, as a symbol and store of wealth. At the time of Diocletian's attempt to stabilize prices in his Edict of AD 301, a pound of silver produced over 130 times more denarii than it had at the death of Augustus, almost three centuries earlier (Goldsmith 1987: 37).

However, from the standpoint of the orthodox commodity theory of money, the effects of debasement were very slow to appear, and prices did not rise significantly for some time. 'Silver "money illusion" seems to have persisted for over a century' (Goldsmith 1987: 37). But, of course, a reduction of metallic content will not necessarily affect prices if the coins continue to be accepted, at their face value, in payment of taxes. In commercial transactions, it would also be difficult to assess accurately the fineness and weight of precious metal coinage and adjust prices accordingly (Goodhart 1998; Innes 1913). However, with the progressive devaluation of gold, *in the form of money*, because of changes in the aureus/denarius exchange rate, it was gradually demonetized. Gold was hoarded in bullion form, and used in 'barter' transaction for land or 'gifts' to advance political careers. The withdrawal of gold from circulation caused shortages that disrupted large payments and transactions (Aglietta 2002), but, most importantly, it began to break the trust in the entire monetary system.

The heavy demands of state expenditure on dwindling resources, the slowing down in the supply of slaves and the effect of the rising demand for land were the real underlying causes of the rise in prices. It is significant that Diocletian combined his monetary policy of restoring confidence in money with full-weight gold coins with an attempt to control prices and wages (Davies 1996: 101–2). Neither had any lasting effect on inflation. Eventually, however, the continuation of inflation and debasement, in conjunction with increasing political and military problems, completely undermined trust in the coinage. At this juncture, in the fourth century AD, general trust in the monetary system broke down, and there was a rush out of money, as a store of value, into other commodities, which further fuelled inflation. The coinage broke its link with the money of account. Not

only gold, but also silver coins, ceased to be 'money' and became speculative commodities that were valued in private transactions, conducted in the money of account (Aglietta 2002). This demonetization further impaired the already weakened taxation system, and undoubtedly contributed significantly to the disintegration of the empire.

### 'Banking' and 'capitalism' in Rome

Studies employing orthodox economic methodology view classical Greek and Roman finance either as essentially the same as that of the modern world, or as a proto-capitalist early stage of development (for example, Baskin and Miranti 1997; see the discussion in Davies 1996).<sup>19</sup> Greek and Roman merchants, like ancient Babylonians, kept credit accounts of their transactions, which could be settled by being periodically 'netted out'. But these activities were only marginal to the operation of the monetary system. Secondly, modernist interpretations of the classical economies also refer to money changing and lending coin as banking. But neither entailed the endogenous deposit creation of modern banking and the transferability of financial claims (see Part I, chapter 2).

As we shall see in the following chapter, transferable private 'credit' became 'money' as a result of changes in the social structure of early modern Europe. At present, we need only note that early modern Europe differed from Rome and the ancient world in general in two important, related respects. The first was the existence of a powerful class of capitalist bankers who produced their own private money, based on the bill of exchange, and from whom the city-states borrowed (Boyer-Xambeu et al. 1994). The second step in the creation of capitalist credit-money occurred when these private promises to pay became generally transferable to third parties as an accepted means of payment. But Roman social structure was inimical to such a development. As 'a result of the highly personalised character of the debt relationship, instruments payable to the order of the payee or to the bearer, which served for the transfer of claims, especially monetary claims, and of powers of disposition over commercial goods and membership rights in commercial enterprises... had been utterly unknown in Roman law' (Weber 1978: 681-3).<sup>20</sup> A plutocracy did develop in Rome (Mann 1986: 267-72). Tax-farmers, who purchased the rights to collection, were conspicuous members of this class; but they were dependent upon the fiscal arrangements and were subservient to the state that controlled them. This privatization of tax collection did not constitute capitalism and the rise of a 'capitalist' class, unless this

is simply identified with profit making – as it is in most modernist accounts based on orthodox economic theory.

The aftermath of Rome's fall further illustrates the significance of the relative autonomy of money – or, rather, the social relations that constitute money. In 'real' terms, the material resources of the Roman Empire did not vanish; but, as a consequence of the disintegration of money, they atrophied. Most importantly, the former Roman monetary space was eventually utterly destroyed by the inability of the barbarian chiefs to impose taxation that might bring about the acceptability of their coinages. Furthermore, contrary to ultra-orthodox economic monetary theory, competition between the chiefs' issues of coinage did not eventually produce more efficient money. Rather, it led to monetary anarchy, which, in turn, accelerated the economic disintegration. Issuers and mints and coinages multiplied. Significantly, coercion and terror fuelled the anarchy as the warlords attempted to impose and enforce their own issues. The severity of the punishment for the use of non-acceptable coins was a measure of the disintegration of sovereign monetary space (see MacDonald's description, cited in Goodhart 1998: 428-9).

As they penetrated each other's territories, competing chiefs collected their adversaries' coins for melting down and reissue as their own. But as the new states were too weak to impose a stable tax system, minting slowed almost to a standstill, causing further economic dislocation, and in large areas of the former empire barter was resumed. However, monetary relations did not entirely disappear, and the Roman abstract money of account continued to be used to calculate credits and debts that were settled with a wide range of different means of payment. This radical de-linking of the money of account and means of payment was to have, as we shall see, far-reaching effects on the next stage of money's historical development.

### Conclusions

All evidence points to the historical origins of money as a means of calculating obligations and debts in pre-market tribal and clan society. Early settled agricultural societies developed a more complex division of labour than the hunters and gatherers, generating a surplus that was distributed unequally. Measures for the assessment of differential social and political obligations were developed. These varied by the nature of the transgression and the status of the injured party, and formed the conceptual basis for money of account. The first money-calculating societies for which records exist are the command



economies of the ancient Near East. Here the measure of value was not integrated into a circulating material form. The main function of money of account was in assessing rents and taxes and calculating economic equivalencies between stocks and flows of different commodities. Payment was typically in the basic staple of barley, but could be in a silver equivalent – denominated by the money of account. The value of the Mesopotamian shekel did not derive from its silver weight, but from the monetary equivalency between silver and barley established by the state.

The integration of money of account and means of payment occurred in the wake of the disintegration of the agrarian empires. The widespread use of mercenaries in the ensuing warfare required a reasonably standardized and convenient form of payment that would be widely acceptable across different jurisdictions. These looser relationships between the state, military force and economic exchange weakened the monetary circuit between state and taxation. Mercenaries did not necessarily owe a tax debt to their employers, whilst, on the other hand, they had need of an acceptable medium of exchange. The connection between the mercenary's political freedom, economic autonomy and the extension of market exchange should be noted.

Paradoxically, this loosening of the links between money and political and administrative control eventually led to a greater extension of territorial control in a 'taxation-coinage multiplier'. Mercenary armies developed into Greek city-states with citizen-soldiers and their own sovereign coinage. From these the empires of Alexander and Rome arose. Between 150 and 50 BC, during a century of great Roman imperial expansion, silver coinage increased tenfold, and 'money percolated into a myriad of transactions which had previously been embedded in the subsistence economy' (Hopkins 1980: 110).

Despite the hitherto unparalleled sophistication of the coinage and the extension of market exchange, it should not be forgotten that Rome's overall level of monetization was relatively low by modern capitalist standards (Goldsmith 1987: 58). Aside from the military, there was no wage labour, and money was used mainly for the exchange between taxation and the acquisition of the means of payment through the sale of commodities to the imperial state. The private commercial sector was no greater than it had been in Egypt or Greece, and 'did not in general represent progress' (Goldsmith 1987: 58). Like the emergence of coinage after the fall of Babylon, it was the disintegration of the Roman Empire that created the conditions for developments in monetary practice that became the basis for modern capitalism.

## 6

# The Development of Capitalist Credit-Money

'Credit' operations of whatever shape and kind do affect the working of the monetary system; more important, they do affect the working of the capitalist engine – so much so as to become a central part of it without which the rest cannot be understood at all.

Schumpeter 1994 [1954]: 318

The Banque does not solely belong to its shareholders; it also belongs to the state which granted it the privilege of creating money.

Napoleon Bonaparte (1806), quoted in Crouzet 1999: 76

Accounts of the rise of capitalism influenced by neoclassical economics and classical Marxism have focused, respectively, on the exchange and production of commodities. Money is seen to play a passive role. Changes in its forms and functions are explained as responses to the need for more efficient transactions and to developments that occurred elsewhere in the economy.<sup>1</sup> However, notwithstanding the importance of the free market, machine technology, factory organization and labour-capital relations, the historical specificity of capitalism is also to be found in its distinctive credit-money system.

The idea that the development of credit-money was a force in capitalist development is to be found in the work of writers who were influenced by the German Historical School of economics and, to a lesser degree, in the French *Annales* school of history.<sup>2</sup> '[T]he financial complement of capitalist production and trade', Schumpeter

also wrote, was so important that the 'development of the law and practice of negotiable paper and of "created" deposits afford the best indication we have for dating the rise of capitalism' (Schumpeter 1994 [1954]: 78). The crucial element is that the production of credit-money in a banking system is a self-generating, relatively autonomous process in so far as the 'banks can always grant further loans, since the larger amounts going out are then matched by larger amounts coming in' (Schumpeter 1917: 207, quoted in Arena and Festre 1999: 119). Moreover, Schumpeter believed that the distinctiveness of capitalism was, in part, to be found in the entrepreneur's role as debtor. Although accumulated wealth 'constitutes a practical advantage', usually someone 'can only become an entrepreneur by previously becoming a debtor'. Furthermore, in capitalism 'no one else is a debtor by the nature of his economic function' (Schumpeter 1934: 101-3, quoted in Arena and Festre 1999: 119). From the French School, Bloch captured this same essential element of capitalism with the observation that it is 'a regime that would collapse if everyone paid his debts' (Bloch 1954 [1936]: 77). The essence of capitalism lies in the elastic creation of money by means of readily transferable debt.

As we shall see, capitalist credit-money was the result of two related changes in the social relations of monetary production in medieval and early modern Europe. First, the private media of exchange (bills of exchange), used in merchant networks, became detached from the existence of any particular commodities in exchange and transit, and were used as pure credit between traders. Later, in a crucial further stage of dislocation, bills became detachable from the particular individuals named in the creditor-debtor relation. Signifiers of debt became transferable to third parties, and could circulate as private money within commercial networks (Kindleberger 1984; Boyer-Xambeu et al. 1994). For the very first time, the extensive production of a form of money took place outside the state's monopoly of currency issue. Eventually, such signifiers of debt became completely depersonalized (that is, payable to 'X' or 'bearer') and were issued as bank money; that is to say, the promises to pay drawn on banks became a widely accepted means of payment. With this change, the private capitalistic financing of enterprise on a large scale became a possibility. In a second, and related, major structural change, some states began to finance their activities by borrowing from their wealthy merchant classes. Their promises to repay these national debts became the basis for public credit-money, which existed in an uneasy and uncertain relationship with the coinage.

Orthodox economic explanations imply that the development of credit and modern forms of finance result from economizing on

mining and minting and/or as a response to the insufficiently elastic supply of commodity-money to meet the needs of the expansion of commerce and industrial production in capitalism (North 1981). Of course, economic interest was a spur to the development of advantageous monetary practices; but these were made possible by changes in social and political structure that were, in the first instance, only indirectly related to the pursuit of cost efficiency. In the first place, monetary practice, as ever, evolved with regard to the demands made by states in pursuit of their own interests. Second, the particular character of these changes cannot be understood outside the circumstances that were presented by the unique configuration of medieval Europe's social and political structure. The disintegration of Rome left the cultural shell of a civilization coextensive with Christendom, but comprising multiple, insecure, acephalous political jurisdictions (Mann 1986). The evolution of capitalist credit-money was, arguably, one of the most important consequences of these circumstances

### The De-linking of the Money of Account and the Means of Payment

After the fall of Rome in the middle of the fourth century AD, money almost disappeared. As imperial trade and production diminished, and mercenary soldiers' wages no longer needed to be paid, the demand for media of exchange and payment fell considerably. But, most importantly, as we have seen, the fiscal flows of the Roman Empire dried up. This situation held particularly on the Celtic margins of the former empire, where coinage became redundant for two centuries, after having been in continuous use for more than 500 years (Spufford 1988: 9). As the archaeological finds of large 'hoards' of money imply, it was no longer routinely needed. Given the very small silver content of late Roman coins, it is likely that they were simply dumped (Davies 1996: 116-17). The two basic functions of money as a unit of account and a means of payment were unable to operate. The social and political system that was 'accounted for' by the abstract money of account no longer existed.

The resumption of minting on a large scale in the eleventh and twelfth centuries was an expression of the growth of kingdoms, principalities, duchies and local ecclesiastical jurisdictions, which began to emerge from the feudal networks of personal allegiances (Bloch 1962). The silver penny (from the Roman denarius) was the basic coin, but it was produced in a vast proliferation of different weights and fineness by the myriad jurisdictions (Spufford 1986: xix-xx; Boyer-Xambeu et

debt is dislocated from the original debtor  
 thus debt becomes a credit-transferrable

al. 1994: chs 3 and 5). However, the fragmentation was partially overcome by the use of a common money of account, which the framework of Latin Christianity was able to sustain. In order to establish a degree of fiscal coherence across the loosely integrated Holy Roman Empire, Charlemagne (768–814) imposed a money of account, derived from the Roman system. There were 240 pence (denarii) to the pound (libra) of silver, which, in turn, was divided into 20 shillings (solidii). Only the silver pennies were extensively minted, and these, as we have noted, 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 in use (Einaudi 1953 [1936]; Innes 1913). The two primary functions of money, integrated by Roman coinage in a single object, had become de-linked – ‘le décrochement de la monnaie de compte’ (Bloch 1954 [1936]: 46). The measure of value was a pure *abstraction* for monetary calculation. Payment could be made in kind, or in the freely circulating coins from the different jurisdictions that were given value by the abstract money of account – not by their metallic content (Bloch 1962: 66). This state of affairs prevailed across the whole of medieval Europe, and persisted 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 dematerialized or ‘imaginary’ in which ‘people acquired the habit of counting in pounds of 20 shillings with each shilling divided into 12 pence’ (Einaudi 1953 [1936]: 230; see also Bloch 1954 [1936]).

It is essential to understand that the ‘imaginary money’ was *invariable*, in that people continued to count in these ratios regardless of the debasement, clipping or deterioration of the actual coinage (Innes 1913; Einaudi 1953 [1936]). By the late seventeenth century, minted pound coins weighed only 7 pennyweights of silver, not the 240 of the money of account; that is to say, 3 per cent of its abstract ratio. None the less, its purchasing power, in relation to the other coins, was the same as it had been at the time of Charlemagne’s decree. Thus, by the late Middle Ages, when people priced things, they had in mind not coins, but commodities and obligations denominated in money of account (Einaudi 1953 [1936]: 230).<sup>3</sup> The *décrochement* of the money of account from the means of payment firmly re-established the abstract monetary calculation that had been practised in ancient Babylon.

Contrary to orthodox economic histories of money, Charlemagne did not intend to provide a standard measure of value as a ‘public good’, in order to facilitate market exchange. Rather, as in all previous monetary developments, the fiscal needs of church and state were most

important – especially ecclesiastical transfers across European Christendom. But the use of a standard money of account across the Christian ecumene did of course eventually provide the foundation for a trans-European market. In response to the quickening of trade and fiscal demands, scores of authorities in many hundreds of mints produced coins – again, it must be stressed, with countless variations in weight and fineness.<sup>4</sup> These circulated freely across European Christendom, and all were evaluated against a benchmark money of account. A list of coins used as means of payment in a large transaction in Normandy in 1473 illustrates the diversity. Nine kinds of coin were itemized: French gold *écus*, English gold nobles, English groats, various French silver coins, Flemish and German silver, and some silver struck by the duke of Brittany. All were rated in terms of the money of account – *livre tournois* – and the total was rounded by adding 7s. 2d. of ‘white money now current’ (Lane and Mueller 1985: 12; see also Einaudi 1953 [1936]: 236; Day 1999).<sup>5</sup>

From time to time, the original Carolingian unit of account of pounds, shillings and pence and coinage were integrated by a standard of value coin that was struck by one of the more powerful kingdoms. In 1226, Louis of France struck the *livre*, or *gros, tournois*, which had the weight and fineness of the ‘imaginary’ *sou* (shilling). For a time, the ‘real’ and the ‘imaginary’ were reunited, at least in the French provinces. But eventually, minting stopped, and the *livre tournois* itself existed only as a unit of account, as in the above example of the fifteenth-century transaction in Normandy.

From the thirteenth century, the most powerful of the emerging states asserted their sovereignty, as Louis of France had done, by proclaiming their own moneys of account, most of which were variants of the Carolingian pounds, shillings and pence (Bloch 1954 [1936]; Spufford 1988; Boyer-Xambeu et al. 1994; Day 1999: 59–109). These were used not only 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. Now, as *both moneys of account and coinages varied, monetary relations became extremely complex*. Any coins had multiple values, one of which was declared in the state of issue, but 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, as we shall see, 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 (Boyer-Xambeu et al. 1994: 6).<sup>6</sup>

Under these circumstances, monetary policy involved manipulation of one or both of the two elements: the weight and fineness standard in an actual coin, and the valuation of the myriad coinages in existence in relation to the money of account. In the first instance, policy was driven by two contradictory aims. On the one hand, monarchs gained extra seignorage profit by reducing the metallic content of coins. (Some of their debts could be paid in bullion rather than coinage.) However, given the promiscuous circulation of coins, monarchs also had an interest, on the other hand, in extending the issue of their own coins. This could be achieved by the imposition and effective collection of taxes, but in the typical conditions of the weaker states this also required the maintenance of an acceptable metallic content – especially for the large-value gold coins that were used as stores of value.

It must be stressed again that variations in metallic content did not have any obvious and direct impact on prices, as orthodox economic theory maintains (see Fischer 1996).<sup>7</sup> Even if states had direct control of sources of precious metal, it was much easier to impose and manipulate a sovereign money of account – that is to say, to declare a value of existing coins in relation to an ‘imaginary’ standard coin that need not be minted. The devaluation and revaluation of money was achieved by ‘crying down’ and ‘crying up’ the money of account (Innes 1913). Depreciating the nominal value of the coins – that is, ‘crying down’ the coinage – was an alternative to increasing the tax rate as a means of increasing the monarch’s purchasing power. It would be declared, for example, that an increased number of pennies were equal to the money of account of, say, a florin. However, this strategy was a short-lived expedient, as other prices were soon adjusted upwards in order to gain sufficient devalued coins to pay for the increased taxation.<sup>8</sup>

In short, medieval money was produced in a struggle for control of bullion, coinage and the money of account; it was anarchic and chaotic, but the turmoil provided the conditions for a significant monetary development (for a graphic description of the confusing complexity, see Day 1999: 59–110).

### The De-linking of the Money of Account and the Evolution of Capitalist Credit-Money

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 jurisdiction of issue increased the need for money-changers, whose activities provided the basis for the re-emergence of *deposit banking* (Usher 1953 [1934]; Mueller 1997). 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 the advantages of these new forms of money had become obvious, and where states were strong enough to enforce the transferability of debt, capitalist credit-money came into being. Again, it should be stressed that this was not a straightforward process dictated simply by a growing awareness of the efficiency of the new forms of money. The actual outcome was produced by particular circumstances, which were always accompanied by conflicts of economic and political interest.

By firmly establishing the practice of abstract money accounting, the fortuitous separation of money of account from means of payment laid the foundations for these innovations. The conceptual distinction between, on the one hand, money as money of account (‘description or title’) and, on the other, money as means of payment (‘the thing which answers to the description’) would be of no practical significance if the thing always answered to the description, or if the description referred only to one thing (Keynes 1930: 4, emphasis original). However, the de-linking opened up the possibility that a range of ‘things’ might be taken as answering to the ‘description’ and could, therefore, be used as means of payment. By the late fifteenth century, Pacioli, in his treatise on double-entry bookkeeping, listed *nine* ways by which payment could be made. In addition to cash, these included credit, bill of exchange and assignment in a bank (Lane and Mueller 1985: 6). Both these developments – money changing/deposit banking and the use of credit instruments – were the result of the geopolitical structure of late medieval Europe. On the one hand, political and social order was sufficient to sustain an expansion of commerce; on the other hand, monetary anarchy – especially competing moneys of account – created difficulties in making payments.

It is possible to discern in these complex circumstances the gradual development of four elements that culminated in capitalist credit-money. First, the (re-)emergence of banks of deposit in the late thirteenth century; second, the formation of public banks, especially in Mediterranean city-states in the fifteenth century; third, the widespread use of the bill of exchange as a form of private money used by

the international merchant-bankers/traders during the sixteenth century; and fourth, the very gradual depersonalization and transferability of debt in the major European states during the seventeenth and early eighteenth centuries, which transformed the private promises to pay into 'money'.

In this regard, the most decisive final development was the integration of the bankers' private bill money with the coinage of sovereign states to form the hybridized, or dual, system of credit-money and a metallic standard of value. It was the late twentieth century before the latter finally disappeared to leave money in its pure credit form.

### 'Primitive' banks of deposit

Early medieval money-changing 'bankers' (*bancherii*), whose services were essential in the monetary anarchy of multiple and overlapping coinages and moneys of account, also took deposits of cash for safe keeping, which eventually permitted the book clearance of transfers between their depositors. However, these early banks did not issue credit-money in the form of bills and notes, and it is largely for this reason that they are referred to as 'primitive' – that is to say, non-capitalist (Usher 1953 [1934]: 264).

In this regard, as we saw in relation to ancient Mesopotamia and Egypt, it is important to distinguish these two distinct bank practices – 'book' clearance of credit and debt and the 'creation' of deposits by lending. Book transfer and clearance between depositors as a means of payment come into existence when a sufficient number of deposit accounts are opened in single enterprise. Here the 'book' money exists as a currency substitute. Payment by bank transfer was, for example, countenanced by a Venetian ordinance of 1421 – *contadi di banco* (bank money), in addition to *denari contadi* (coined currency) (Usher 1953 [1934]: 263). The banker could also use some of the deposits to make loans or invest in trade, without depriving the depositors of the use of their deposits – unless of course they all wished to use them at the same time. Both practices augment the stock of public currency; but this is limited to the particular credit relations that actually exist between the parties involved. In other words, there exists a complex network of interpersonal credit relations orchestrated by the bank. Transfers between accounts had to be conducted in person in the presence of the banker, as they were in the banks of the ancient and classical world (Usher 1953 [1934]; Weber 1981 [1927]). Written orders were still illegal, although they were increasingly being used. But these were restricted to very small personalized networks, as in

sixteenth-century Venice, where 'the merchants rubbed shoulders with one another every day at the Rialto' (Day 1999: 37).

But accepting deposits, book clearance of credit and the lending of coined money 'merely transfers purchasing power from one person to another... [b]anking only begins when loans are made in bank credit' (Usher 1953 [1934]: 262). This creation of credit-money by lending in the form of issued notes and bills, which exist independently of any particular level of incoming deposits, is the critical development that Schumpeter and others identified as the *differentia specifica* of capitalism. The issue of credit-money, in the form of notes and bills, requires the depersonalization of debt, which enables the transferability of promises to pay. These can then circulate outside the network of any particular bank and its depositors. The transformation of the book clearance of credit transfers between depositors into depersonalized, transferable debt slowly developed with the emergence of public banks and the private bankers' bill of exchange.

### Early public banks

What Weber referred to as eighteenth-century capitalism's 'memorable alliance' between financiers and states originated in fourteenth-century Mediterranean city-states. The 'primitive' deposit bankers and money-changers had to purchase licences from the city governments and perform various public functions, in return for which they received protection. In fourteenth-century Genoa, for example, bankers converted currencies for the commune, sought out forged or forbidden coins and generally supervised the circulation of the coined currency. The government required the bankers to make their records available for inspection and to produce guarantors for outstanding debts. In return, the government backed the bankers' credibility by recognizing their book entries as proof of transactions in bank lending and transfer between accounts. Most importantly, the city governments became the banks' largest clients. Public banks were established at Barcelona in 1401 and at Valencia and Genoa in 1407. Venice's Banco della Piazza di Rialto, founded in 1587, also accepted bills of exchange payable to its depositors and converted the state's debt into transferable bonds. However, the early public banks did not transform the state's debts into 'new' money by the issue of freely transferable or circulating notes and bills based on the state's promise to repay its debts (Usher 1953 [1934]; Weber 1981 [1927]).

During the late Middle Ages, monarchs in the larger kingdoms were regular borrowers from merchants and bankers, but these were,

in effect, personal loans.<sup>10</sup> However, loans to the city-states were public, in that the debtor was the corporate government (see the general survey in Bonney 1999). This linkage of the bourgeois depositors and the city governments was the precursor of the typical capitalist mode of money creation. At this stage, the clearance of debts and credits in the banks' giro of depositors effectively monetized the city-state debts. The suppliers of goods and services to the city governments were able to draw on their bank accounts before payment from the state had been received (Mueller 1997: 42; Day 1999: 67-8).

In contrast to the conflict of interests between the sovereign and the bankers in the monarchies (see Munro 1979), these early state-bank relations were based on *intra*-class credit relations in the governing plutocracies of the Italian city-states. In effect, they were borrowing from each other, and this creation of infrastructural power depended on the solidarity and cohesion of the ruling oligarchy. Factionalism and political instability proved to be one of the chronic sources of fiscal and, ultimately, military weakness in these states. None the less, an entirely new social technology of state financing had been developed, to be integrated later with other techniques – most importantly, the bill of exchange.

#### The bill of exchange

The transformation of the social relation of debt into the typically capitalist *form* of credit-money began when signifiers of debt became anonymously transferable to third parties. The process may be divided roughly into two periods. First, in the sixteenth century across that part of Europe covered by Latin Christianity, forms of private money such as bills of exchange (and, later, promissory notes) were used in commerce, and existed alongside the plethora of diverse coinages of the states and principalities. Second, during the late seventeenth century, some states outside Latin Christianity (most notably Holland and England) integrated this monetary technique with public deposit banking, and began to issue *fiduciary* money. In this way, the bill of exchange, as a form of private money, gradually evolved to become part of the public currency. By means of its incorporation into a sphere of monetary sovereignty, private promises to pay now became a more extensive and stable form of public money. Again, it must be emphasized that these *particular forms* of money cannot be accounted for simply as *direct* responses to the needs of the market for more efficient exchange or of states for finance.

As we have noted, from the thirteenth century onwards, the princes of Latin Christendom not only minted their own coins, but also proclaimed, as an expression of sovereignty, their own version of the Carolingian money of account (Boyer-Xambeu et al. 1994: 6). Consequently, every coin in the promiscuous international circulation might have a different value in each jurisdiction in which it was to be found. There was now no common yardstick. As we have also noted, the extreme monetary uncertainty is evident in the absence of numerical markings on coins (Innes 1913). In other words, at the precise moment when the states' pacification of Europe allowed more extensive trade, their claims of sovereignty in both money of account and coinage created a complexity that threatened to impede it. In these circumstances, money-changers found ready employment; but their activities could do no more than ease the difficulties, and then only at the local level. The problem was resolved in the first instance by the small networks of exchange bankers, based in the Italian republics. They gave coherence to the anarchy by using their own version of the Carolingian 1: 20: 240 money of account as the basis for their bills of exchange, which were used to finance trade.

The modern bill of exchange originated in Islamic trade, and almost certainly entered Europe through the Italian maritime city-states during the thirteenth century (Udovitch 1979; Abu-Lughod 1989). Exchange by bill required two networks – one of traders and one of bankers. A trader would draw a bill on a local banker, which he would then use as a means of payment for the specific goods imported from outside the local economy. The exporter of the goods would then present the bill for payment to his local representative of the banking network. In their simplest form, the bills directly represented the value of the goods in transit. Their adoption facilitated long-distance trade, but there is nothing in these economic advantages themselves that would suggest that the bills would develop into credit-money. Indeed, this is precisely what did not happen across the Islamic world. Other conditions were necessary.

Without delving too deeply into the complexities, it is essential to understand that it was the particular geopolitical structure of late medieval Europe that created the circumstances in which exchange by bill could not only flourish, but also develop further into private money existing alongside the sovereign coinages. The anarchy of myriad moneys of account, and their separation from the equally varied means of payment in a plethora of monetary sovereignties, was the basis for the exchange bankers' *systematic* enrichment from the use of bills of exchange.

The bankers were able to enrich themselves and promote the use of bills through a series of exchanges that involved the *conversion of one*

money of account into another. The bankers met at regular intervals at the fairs to fix their own overarching money of account, expressed in terms of an abstract coin (*écu de marc*) upon which the private bill money was based. Their enrichment depended on the existence of two conditions. First, the bankers had to maintain the permanent advantage of the central fair rate of exchange of their own money of account and (at Lyons, for example) over any other. Secondly, in order to achieve this, they had to control the direction of both an outward flow and an inward return of bills through their networks. In this way, they were able also to control the advantageous arbitrage in which the passage of bills unfailingly produced a profit as they were converted from one unit of account to another (Boyer-Xambeu et al. 1994: ch. 6).

In other words, this state of affairs bore no relationship to a market in bills, as this is understood in conventional economic analysis. The situation outlined above, and the profit opportunities that it provided, were the result of a purely monetary relation that existed between the myriad moneys of account and their lack of any stable relationship to the equally varied coinages. The bankers could control the direction of a bill through the moneys of account of the myriad jurisdictions in a way that was always favourable to them, as this was determined by their own money of account at the central fair where the accounts were settled. As described by Davazanti in the sixteenth century, this mode of exchange by bill was exchange *per arte*, as opposed to the forced exchange that was determined by the flow of commodities (Boyer-Xambeu et al. 1994: 130).

Leaving aside for a moment the longer-term consequences of the bill of exchange for the development of capitalist credit-money, it would be difficult to overemphasize the more immediate and direct effects on economic life. Until this time, imports and exports of goods were inextricably linked by quasi-barter exchange involving bullion. Moreover, apart from well-established bilateral trade between parties known to each other, merchants were travellers who accompanied their goods and means of payment. After the extension of the bill network from the late fourteenth century onwards, they became sedentary, and the cities expanded.

Exchange by bill *per arte* was the means whereby the nations of bankers enriched themselves by exploiting the unique opportunities afforded by the particular structure of the late medieval geopolitical structure and its monetary systems. In doing so they expanded the early capitalist trading system. The bill of exchange system allowed an increase in trade without any increase of coinages in the different countries. But this was an unintended consequence of the exchange bankers' entirely self-interested exploitation of the particular circum-

stances (Boyer-Xambeu et al. 1994: 130). The exchange banking nations had created a source of enrichment that was relatively autonomous from the supply and demand for 'real' exchange; but its consequence was fundamentally to transform the way in which the latter was organized and pursued.<sup>11</sup>

### The depersonalization of debt

Exchange *per arte* – that is, the creation of credit in the bill of exchange independently of the existence of any actual goods in transit – was also known as 'dry exchange'. It entailed a dissociation of pure credit from the 'real' representation of goods. In turn, this eventually led to a further dissociation of the bill from any particular dry exchange credit relation – that is, to the growing autonomy of *depersonalized debt relations* and their eventual evolution as a form of credit-money. Subsequently, exchange by bill eventually became integrated with public banking, and resulted in the issue of credit-money by states.<sup>12</sup>

As we have noted, verbal personal contracts, based on Roman law, in both casual credit relations and more formal arrangements, conducted by the early banks of deposit, predominated until the sixteenth century (Usher 1953 [1934]: 273). These were made before a notary and witnesses, and became a matter of public record. This form of contract served to fix debt as a *particularistic social relation*; and therefore, until written contracts became the norm, the transferability of debt to the point where it served as a general *impersonal* means of payment was not possible.

The widespread use of the bill in dry exchange – *per arte* – undoubtedly hastened the transition from oral to written contracts, and opened up the possibility that the signifier of bilateral debt could be used in the settlement of a third-party debt. 'Bills were drawn for the first and fictitious destination and the option of a reimbursement in Genoa' (Lopez 1979: 16; see also Spufford 1986: xlv). This was a pure monetary instrument, which consisted exclusively in a promise to pay denominated in an abstract money of account. In this way, a further dissociation was effected: a form of circulating money was separated from the precious metal manifestation that it had taken in the previous 1,000 years. During the sixteenth century, bills began to leak out of the network of exchange bankers and take on the property of more general, but still restricted, means of payment. (For example, the name of the presenter of the bill was omitted when the bill was drawn and added later as necessary (Usher 1953 [1934]: 286).) But until the bills became widely transferable as means of payment to third parties *outside* the network of bankers, they remained private money.

In particular, bills were not a means of *final settlement* of debts – especially tax debts. Moreover, the elite banker ‘nations’ opposed the free and extended circulation of bills; it threatened their systematic enrichment *per arte*, which depended on absolute control of the directional flow of bills.

Significantly, this further development of the bill into a more generally acceptable means of payment occurred in Holland and, later, England, which were *outside* exchange bankers’ *direct* sphere of influence. In Holland, by the middle of the sixteenth century, the properly constituted agent of the named payee on the bill – or *bearer* – was recognized in law. Towards the end of the century, changes to the parties involved in a contract were written on the back of a bill, and this was accepted as an order to pay (Usher 1953 [1934]: 287). From a technical standpoint, the document *itself* was now deemed to contain all the necessary information, and, in effect, signifiers of debt had become *depersonalized*. However, full transferability of such instruments of debt as means of payment outside the merchant capitalist networks and within a sovereign monetary space was not established, as we shall see, until the early eighteenth century.

During the sixteenth century, a singular form of profit making was made possible by the exchange bankers’ exploitation of the diversity of moneys of account and their dislocation from the equally varied means of payment that resulted from the geopolitical structure of myriad weak states.<sup>13</sup> For a time, the transnational exchange bankers brought a degree of integration to the system by linking the value of the French king’s *sbus tournois* with their own abstract money of account – the *écu de marc*. This expressed a particular balance of power between the princes’ sovereign claims, with their attendant tax advantages, and the bankers’ profit-making ventures. However, this balance shifted dramatically towards the end of the sixteenth century. Two interdependent forces were involved. First, the exchange bankers’ networks weakened to the point of collapse in the aftermath of typical capitalist defaults and liquidity crises, which they alone could not stabilize. Secondly, the French state reasserted sovereign control of its monetary system (Boyer-Xambeu et al. 1994: ch. 7). In 1577, the French monetary authorities effectively removed the foundations for enrichment from exchange *per arte* by the establishment of a uniform metallic standard that *reconnected* the *money of account* and *means of payment* and by the prohibition of the circulation of foreign coins. Henceforth, exchange by bills became a *financial* rather than a *monetary* relation in the sense that their value ceased to be fixed in the abstract money of account rate, but rather on the floating exchange rates of metallic coins – as in today’s foreign exchange markets

(Boyer-Xambeu et al. 1994: 202). This form of exchange, and banking in general, withered temporarily in face of the absolutist monarchies’ metallic money (Kindleberger 1984: ch. 6). However, the new credit-money practices moved on geographically to those states with more powerful merchant-banking classes, such as Holland and England. In the latter, credit-money and the older coinage form were eventually recombined in a further significant development.

### The Transformation of Credit into Currency

Apart from later refinements, the basic *organizational* and *technical means* for producing the various forms of credit-money were, from a practical standpoint, widely available by the sixteenth century. Italian treatises on the new techniques described how the supply of precious metal coinage could be augmented. Three methods were identified: bank clearance of debt the creation of money in the form of claims against the public debt and exchange of bills *per arte* (Boyer-Xambeu et al. 1994). As we have seen, bills and promissory notes were slowly becoming disconnected from the direct representation of goods in transit or of personal debt; but they were not widely accepted as means of payment. In other words, the social and political bases for the transformation of private debt into currency lagged behind technique. Even in England, where the new forms of credit-money eventually became most extensive, the establishment of full transferability of debt was a long and gradual process, which was not completed until the eighteenth century.<sup>14</sup>

Moreover, it would appear that social and political structures that had provided the basis for the new capitalist credit-money – in the forms of public debt and private bills – were *in themselves* incapable of further expansion. This new ‘social power’ in the form of an elastic production of credit-money was impeded by the very conditions that had originally encouraged its development. For example, informal contracts by which the mercantile plutocracies of the Italian city-states lent to each other through the public banks were constantly jeopardized by the factional rivalry that was typical of this form of government. These conflicts also undoubtedly played their part in the general decline of the Mediterranean city-state republics from the sixteenth century onwards. With regard to the merchant-bankers’ *private* bill money, it is difficult to see how they could have carved out the necessary monetary space for their bills, based on a sovereign jurisdiction and the necessary level of *impersonal* trust. Moreover, as we have noted, it was not even in their interests to do so, as it would have



removed the circumstance from which they profited. Without a wider base, the liquidity of bills of exchange was almost entirely restricted to banking and mercantile networks, and could not evolve into credit-money currency.

In other words, there were definite social and political limits to the market-driven expansion of credit-money. The essential monetary space for a genuinely impersonal sphere of exchange was eventually provided by states. As the largest makers and receivers of payments, and in declaring what was acceptable as payment of taxes, states were the ultimate arbiters. They created monetary spaces that encompassed and integrated social groups whose interaction was embedded in particular social ties or specific economic interests. Until private credit-money was incorporated into the fiscal system of states which commanded a secure jurisdiction and a legitimacy, it could be argued that it remained, in evolutionary terms, a dead-end.

Rapidly shifting political boundaries, the promiscuous circulation of coins across them, not to mention competing moneys of account, were the norm. Credit-money was a product of this insecure monetary space, but, in turn, these very same circumstances could not sustain it. In this regard, it is significant that the bills of exchange were centrally important in the operation of the fairs of Champagne and Burgundy during the fifteenth and sixteenth centuries. They flourished in precisely those more feudalistic, but pacified, parts of Europe which were least favourable to the creation of a strong coinage, but just strong enough to protect the fairs. The bankers' bill-money flourished in those regions where a balance of power allowed them to function. Early capitalist monetary practices spread to these regions not only because they were on the Baltic-Mediterranean trade route, but also because the dukes of Burgundy, for example, unlike the kings of France, were not despotically powerful enough successfully to establish a monetary monopoly that integrated a money of account with metallic currency.

The two forms of money – or, rather, the structure of social relations and the interests of the producers of private bills and public coins – were antithetical and antagonistic. On a most general level, the minting of coin was both a symbol and a real source of the monarch's sovereignty. Monopoly control brought great benefits, which it was feared would be eroded if exchange by bills were to displace the coinage. But, paradoxically, the first step in the creation of stable monetary spaces that could sustain credit-money was the strengthening of metallic monetary sovereignty.

It could be said that the stringency and effectiveness of bullionist monetary policies were a good measure of the power of the medieval

monarchical state. And this was nowhere more apparent than in England, where, eventually, credit-money was first successfully established as public currency. Here, mercantilist conceptions of the strength of states and related metallist monetary policy were strongly opposed to the bill of exchange. Its widespread use involved a loss of sovereign control – especially over the profits of seignorage and the manipulation of the money of account by 'crying up' and 'crying down' the coinage. At times, from the fourteenth to the mid-seventeenth century, English kings banned the importation of foreign coins and the export of bullion, ordered exporters to supply their bullion to the mints, attempted to prohibit the bill of exchange, and generally sought to limit the use of credit (Munro 1979).<sup>15</sup> It is significant that when Pacioli's 1494 treatise on financial practice and double-entry book-keeping was translated into English in 1588, the section on banking was omitted on grounds of irrelevance (Lane and Mueller 1985: 68). The controls on exchange and the domestic unit of account exercised by the English monarchy largely prevented the promiscuous circulation of coins and multiple moneys of account that took place in continental Europe. Consequently, both deposit banking through money changing and exchange by bill *per arte* were both less developed in England. However, the critical factor was that the new forms of credit-money could not be entirely suppressed. And it was precisely in this secure, socially and politically constructed monetary space that credit-money was able eventually to function as currency.

Henri III's reconstruction of the French coinage, which dealt the decisive blow to the exchange bankers' method of enrichment, was modelled on Elizabeth I's thorough recoinage in England during 1560–1 (Davies 1996: 203–8). The French stabilization collapsed in 1601; but in England, the setting of four ounces of sterling silver as the invariant standard for the pound unit of account lasted until World War I. This stability is historically unique, 'little short of a miracle, and almost inexplicable at first sight' (Braudel 1984: 356). However difficult it might be to explain, the maintenance of the standard through the centuries was indisputably the linchpin of England's fiscal and political system. As we shall see, its retention was a condition of the survival of the constitutional and fiscal settlement between sovereign, government and ruling classes after the successful resistance to the absolutist claims of James II, Charles I and Charles II in the seventeenth century. The maintenance of the standard encouraged a steady supply of *long-term* creditors for the state, and in this way provided a secure basis for the eventual adoption and expansion of the credit-money system. England eventually achieved what Venice and others had been unable to secure, and reaped the benefits. We

must now examine how this critical development, involving the successful hybridization of the two forms of money (coinage and credit), was achieved in England. It occurred in two steps: the creation of a single monetary space for a national coinage, into which credit-money was then gradually introduced.

### Sovereign monetary space in England

The temptations of increased seignorage by means of debasement proved too much for Henry VIII in the search to finance his costly wars. During the 'Great Debasement' (1544–51) the silver content of the coinage was systematically reduced from 93 per cent to 33 per cent, which resulted in a seignorage to the Crown amounting to over £1.2 m (Goldsmith 1987: 178; Davies 1996: 203).<sup>16</sup> Although the reduction of the metallic content of coins does not necessarily affect prices (Innes 1913, 1914; Braudel 1984: 356–9; Davies 1996), the debasement did discredit the monarchy and create insecurity by destroying confidence in money as a *store of value*. Like all serious monetary disorder, it threatened political and social disorder.

Elizabeth I's reforms stabilized the coinage, successfully prohibited the circulation of foreign coins and secured monetary sovereignty. English monetary policy was unequivocally monarchical and bullionist (Munro 1979). Citing the 'abuses of merchants and brokers upon bargains of exchange', Elizabeth's minister, Lord Burghley, forbade bill of exchange transactions that were not licensed and the issue of bills by unknown merchants, and placed a  $1/2d.$  in the pound (£) tax on the discounting of bill for coin.

Other elements of state building aided the creation of monetary sovereignty. It was precisely at this time that England became a more coherent linguistic and cultural unit, in which class and state were integrated by the overarching nation (Mann 1986: 462). Significantly, the word 'nation' began to lose its medieval meaning of a group united by common kinship – as in the banking nations centred on the great fifteenth- and sixteenth-century Italian families. The emerging English nation-state became the basis for the impersonal trust that eventually enabled the forms of credit-money to become established outside the interpersonal banking and exchange networks in which, hitherto, they had been contained.

At this juncture, however, the late sixteenth-century English state had, in effect, established a form of money that was in all important aspects the same as that which had disintegrated in Rome more than 1,000 years earlier. At the very moment when the techniques for the new forms of credit-money were being disseminated across Europe

by trade and treatise, the strongest states were reconstructing the ancient form as both symbol and measure of their sovereignty.<sup>17</sup> In the absence of further events and conditions, credit-money's development into public currency could just as readily have been inhibited by monarchical monetary policy – as it had been in France, for example. However, a century later, the Bank of England was founded, and an enduring state credit-money was issued. It was the outcome of a particular *political struggle* between the supporters of the two different forms of money – coin and credit. This outcome consisted in a remarkable coalescence of the interests of commerce and statecraft, produced by a compromise that expressed the delicate balance between too much and too little royal power.<sup>18</sup>

On the one hand, English kings continued to assert medieval royal monetary prerogatives. Charles I appointed a Royal Exchanger with exclusive powers over the exchange of money and precious metals; and in 1661 Charles II sought to enforce the old statutes of Edward III and Richard II licensing bills of exchange (Munro 1979: 212). On the other hand, an increasing number of the same mercantile supporters of monetary stability also advocated 'Dutch finance' – especially the creation and monetization of a national debt.<sup>19</sup> As I have emphasized, the techniques were by now well understood.<sup>20</sup> More than 100 schemes for a public bank were put forward in the second half of the seventeenth century, with the aim of regularizing state revenue and further removing it from the arbitrary control of a monarchy with absolutist pretensions (Carruthers 1996). Many were based on Amsterdam's Wisselbank (1609), which itself had been patterned closely on Venice's Banco di Rialto (1587) (Goldsmith 1987: 214).

The most important question concerned the nature of the material wealth that was to be the basis of the prospective banks' issue of credit-money – that is, for its capacity to honour promises to pay in something other than merely another promise to pay. Lessons had been learnt from the earlier experiments. The circulation of these mere promises in the form of deposits and stock held by the mercantile and affluent classes had proved to be unstable in Venice, and was viewed with suspicion. Furthermore, the Dutch had more recently experienced similar crises. Many agreed with Defoe that 'land is the best bottom for banks' (quoted in Davies 1996: 260). But, it was also beginning to be realized that mere promises to pay were, in fact, a new form of money, *sui generis*, in that they were not actually representative of any material value. As we saw in Part I, chapter 2, a credit theory of money was emerging.

[O]f all beings that have existence in the minds of men, nothing is more fantastical and nice than Credit; it is never to be forced; it hangs upon opinion, it depends upon our passions of hope and fear; it comes many times unsought for, and often goes away without reason, and when once lost, is hardly to be quite recovered... [And] no trading nation ever did subsist and carry on its business by real stock;... trust and confidence in each other are as necessary to link and hold people together, as obedience, love friendship, or the intercourse of speech. (Charles Davenant, c.1682, quoted in Pocock 1975: 77)<sup>21</sup>

In England during the seventeenth century, a 'civic morality of trust' was developing that could sustain a wider credit-money economy outside the closed networks of the metropolitan mercantile and political elite (Muldrew 1998). It was a consequence of profound changes in credit relations that would seem to have occurred during the previous century. During the 1570s, bilateral personal credit, typically based on traditional oral contracts before witnesses, became commonplace for a wide range of sales and services (Muldrew 1998). For reasons that have not been fully explained, defaults soon became widespread. However, in the wake of the collapse of the credit relations, a new culture of credit based upon a currency of reputation was constructed. Given the interconnectedness of the credit relations, defaults must have had extensive ramifications: total litigation in the 1580s 'might have been as high as 1,102,367 cases per year or over one suit for every household in the country' (Muldrew 1998: 236). It is possible, but by no means clear, that such a large-scale use of the law led to the final destruction of the personal feudalistic ties of affiliation and dependence of the Middle Ages. It would appear that a process of normative reconstruction followed, in which the general quality of trustworthiness as a *public*, or *communal*, virtue replaced *personal* commitment. It entailed 'a sort of competitive piety in which virtue of a household gave it credit' (Muldrew 1998: 195). Moreover, as Muldrew emphasizes, this moral basis of trustworthiness, which could support extensive market relations and a credit-money economy, was not the result of a natural sociability. Rather, it had to be created not only by legal enactment and enforcement, but also through culture – drama, ballads and poetry. Universalistic trustworthiness, which could be *claimed by acting in a reputable manner*, replaced the obligations to honour agreements based on particularistic ties of family or kin.<sup>22</sup>

#### The dual monetary system: the hybridization of credit and coinage

By the late seventeenth century, the two forms of money – private credit and public metallic coinage – were available, but unevenly spread across

Europe. However, they remained distinct, and their respective producers – that is, states and capitalist traders – remained in conflict. As I have suggested, England's social and political structure favoured the integration of the different interests that were tied to the different moneys. Here, the balance of power was such that a compromise and a sharing of monetary sovereignty were a possibility. But there should be no presumption of the inevitability of a hybridized form of money that combined the advantages of each – sovereign coin and private credit. As ever, events proved decisive in tilting the balance away from the sovereign's monopolistic control of the supply of money.

Charles II's debt default in 1672 hastened the adoption of public banking as a means of state finance. Since the fourteenth century, English kings had borrowed, on a small scale, against future tax revenues. There was also a small market in the tally stick receipts for the loans 'which effectively increased the money supply beyond the limits of minting' (Davies 1996: 149). However, compared with state borrowing in the Italian and Dutch republics, English kings, like all monarchs, were disadvantaged by the very despotic power of their sovereignty. Potential creditors were deterred by the monarch's immunity from legal action for default and their successors' insistence that they could not be held liable for any debts that a dynasty might have accumulated.

With an impending war with the Dutch, an annual Crown income of less than £2 m and debts of more than £1.3 m, Charles II defaulted on repayment to the tally holders in the 'Exchequer Stop'. It was a critically important event in the London mercantile bourgeoisie's rejection of English absolutism. It culminated in the Glorious Revolution and the invitation to William of Orange to invade and claim the throne. The prevention of any recurrence of default was a paramount consideration, which Parliament put to the new Dutch king in the constitutional settlement of 1689. In the first place, William was intentionally provided with insufficient revenues for normal expenditure and, consequently, was forced to accept dependence on Parliament for additional funds. Second, with William's approval and the expertise of his Dutch financial advisors, the government adopted long-term borrowing. This was funded by setting aside specific tax revenues for the interest payments (Carruthers 1996: 71–83; North and Weingast 1989; the classic path-breaking account remains Dickson 1967).

The state's creditors were drawn from London merchants, who backed a proposal for a Bank of England, in order to take the financial developments a step further. They provided £1.2 m for the Bank's stock, which was then loaned to the king and his government

at 8 per cent interest, which, in turn, was funded by hypothecated customs and excise revenues. In addition to the interest, the bank received an annual management fee of £4,000 and a royal charter that granted it the right to take deposits, issue bank notes and discount bills of exchange. After the failure of a Tory land bank competitor, a monopoly on banking and the right to issue further bank bills and notes to the total of newly subscribed capital was granted by royal charter in 1697. As Galbraith explains:

When subscribed the whole sum would be lent to King William: the government's promise to pay would be the security for a note issue of the same amount. The notes so authorised would go out as loans to worthy private borrowers. Interest would be earned both on these loans and on loans to the government. Again the wonder of banking. (Galbraith 1995 [1975]: 32; see also Carruthers 1996; Davies 1996)

In effect, the privately owned Bank of England transformed the sovereign's personal debt into a public debt and, eventually in turn, into a public currency.<sup>23</sup> Underpinning this transformation in the social production of money was the change in the balance of power that was expressed in the equally 'hybridized' concept of sovereignty of the 'King-in-Parliament'. The institutions for the production of capitalist credit-money, and the balance of economic and political interests that underpinned it, were beginning to take shape. The state was financed by loans from a powerful creditor class that were channelled through a public bank. Each had an interest in the long-term survival of the other.

This fusion of the two moneys, which England's political settlement and rejection of absolutist monetary sovereignty made possible, resolved two significant problems that were encountered in the earlier applications of the credit-money social technology. First, the private money of the bill of exchange was lifted out from the private mercantile network and given a wider and more abstract monetary space based on impersonal trust and legitimacy. This involved an underlying fusion of modern elements such as an emerging civic morality of creditworthiness and contract law with the traditional sovereignty of the monarch.<sup>24</sup> Second, Parliament sanctioned the collection of future revenue from taxation and excise duty, to service the interest on loans. Here again, the *balance* between too little and too much royal power was critically important in determining the settlement between debtor and creditor. Expressed in the concept of the sovereignty of King-in-Parliament, it reduced both the factional strife that had prevented such long-term commitment in the Italian republics and also the

absolutist monetary and fiscal policies that weakened the French state in the eighteenth century (Bonney 1999; Kindleberger 1984). The new monetary techniques conferred a distinct competitive advantage in the geopolitical struggles of the time, which in turn rendered England's high levels of taxation and duties for the service of the interest on the national debt more acceptable (Ferguson 2001).

From a monetary perspective, the most important, but *unintended*, long-term consequence of the establishment of the Bank was its monopoly to deal in bills of exchange (Weber 1981 [1927]: 265). This arrangement practically fused the private money and public currency. The purchase of domestic bills of exchange at a discount before maturity was a source of monopoly profits for the Bank. But it also proved to be the means by which the banking system as a whole became integrated, and the supply of credit-money (bills and notes) was influenced by the Bank's discount rate. The two main sources of capitalist credit-money that had originated in Italian banking – that is, public debt in the form of state bonds and private debt in the form of bills of exchange – were now combined for the first time in the operation of a single institution. But, most importantly, these forms of money were introduced into an existing sovereign monetary space defined by an integrated money of account and means of payment based on the metallic standard. The Bank's notes were at the top of the hierarchy of moneys, and were introduced widely into the economy when they were exchanged for the discounted private bills and notes.<sup>25</sup>

It must be stressed that during *precisely* the same period in which the Bank of England was established and the full transferability of debt was made legally enforceable, the precious metal coinage was greatly strengthened. That is to say, this process did not involve a dematerialization of money that was driven – either intentionally or teleologically – to greater efficiency. Whether from a theoretical or a practical standpoint, overwhelming intellectual opinion across Europe was behind precious metallic money throughout the seventeenth and eighteenth centuries, and beyond. In England, Locke, Hume and, later, Smith argued unswervingly in favour of a strong precious metal money. No less a figure than Sir Isaac Newton was persuaded to lend his authority to restoration of the full weight of the coinage that had deteriorated over the century since Elizabeth I's reforms. During his twenty-seven-year Mastership of the Royal Mint, which ended in 1727, the coinage was placed securely on a gold basis.<sup>26</sup> As credit-money became the most common means of transacting business, England also moved towards the creation of the strongest metallic currency in history.

The monarch had lost absolute control over money, which was now shared with the bourgeoisie. Unlike the *de facto* and informal linkage between the king's coinage and the exchange bankers' money of account and bills in sixteenth-century France (Boyer-Xambeu et al. 1994), the English state's integration of the two forms permitted a further development of credit-money. Coins and notes and bills were eventually linked by a formal convertibility in which the latter were exchangeable for precious metal coins. This hybridized nature of the system of dual monetary forms was the result of a compromise in a *struggle for control* that eventually resulted in a mutually advantageous accommodation.<sup>27</sup>

In addition to the main money supply of precious metal coins and bank notes, there existed other significant forms of money. On the one hand, as we have noted, inland bills of exchange continued to play an important role until mid-nineteenth century in the expanding capitalist networks, especially in industrial northern England. On the other hand, copper tokens were struck privately, throughout the country, and were used as media of exchange in local economies to augment the silver legal tender that was in short supply and minted in denominations that were too high for the routine transactions of the mass of the population. Both existed well into the nineteenth century (Anderson 1970; Davies 1996). These local monetary spaces gradually lost their identity and were very slowly but inexorably integrated into a national space. As ever, the integration was accomplished by the *money of account*, as Rowlinson has pointed out:

By the 1830s, then, Britons could at different times and places have understood gold sovereigns, banknotes, or bills of exchange as the privileged local representatives of the pound... the pound as an abstraction was constituted precisely by its capacity to assume the heterogeneous forms, since its existence as a currency was determined by the mediations between them. (Rowlinson 1999: 64–5)

The centralization of the British monetary system and those of the states that sought to emulate her capitalist development was an inevitable consequence of the public banks' domestic and, then, international roles in the *dual* system of precious metal and credit-money. First, as the banker to a strong state, the public, or central, bank has direct access to the most sought-after promise to pay – that of the state to its creditors. The central bank's notes are at the top of the hierarchy of promises in a credit-money system. By discounting other, less trusted forms of credit for its own notes, as remarked above, it is able to achieve a *de facto* dominance, and thereby maintain the

integrity of the payments system, which constitutes capitalist credit-money (Weber 1981 [1927]; Bell 2000; Aglietta 2002).<sup>28</sup> Second, for most of the eighteenth and nineteenth centuries, the issue of notes based on the state's promises was also given the added guarantee of convertibility into gold at a fixed rate. As other national economies placed their monetary systems on the gold standard at the end of the nineteenth century, the international relations between central banks and their management of the gold flows tended to enhance their central control of the respective domestic monetary systems (Helleiner 1999). Since the disappearance of the last vestige of precious metal money in 1971, when the USA abandoned the gold-dollar standard of the Bretton Woods international monetary system, it has been argued that central banks have lost a degree of control to foreign exchange markets (B. Cohen 2001b). But far from signalling the demise of central banking, their role in creating *credible* pure credit-money has enhanced their power and autonomy. Indeed, in pursuit of the goal of stable, pure credit-money, central banks of the major economies have gained power over the domestic systems through control of the supply of reserves and the discount rate.<sup>29</sup> These questions are pursued further in the following chapters.

## Conclusions

The social relations for the 'manufacture' of capitalist credit-money were first successfully developed in England from the late seventeenth century onwards, and were copied, with varying degrees of success, throughout the developing Western world. Capitalist credit-money connects the state with the bourgeois classes. The institutional structure of this form of money consists in three-way debtor-creditor relations between the state, rentiers and taxpayers, which are mediated and reproduced by a public bank, an efficient bureaucratic administration and a robust Parliament. Holders of the national debt were given confidence in the state's promise to pay interest and capital by the funding of the debt with hypothecated tax revenues, collected by a vast army of bureaucrats (Brewer 1989). The terms of the settlement between state, creditors and taxpayers – that is, the levels of borrowing and tax rates – were negotiated and scrutinized in Parliament (North and Weingast 1989). For three centuries, this form of money was grafted on to the existing, but greatly strengthened, precious metal coinage, and thereby its storage of value function was given an additional guarantee. But, as I have frequently stressed, the ratio between money and goods, or money's purchasing power, was not established

directly by the market exchange ratios between precious metal and other commodities. Rather, monetary authorities *promised* to maintain the conversion price of gold and notes that they had fixed. For most of its history, money in capitalism was produced in a dual or hybrid system in which public metal coinage and private credit were integrated and transformed. As we saw in Part I, the idea of a metallic standard ideologically naturalized the underlying social relations. Apart from its almost entirely symbolic role in the Bretton Woods monetary system, the gold standard has been inoperative for almost a century.<sup>30</sup>

The basic elements of the pure form of capitalist credit-money are explored further in the following chapter; but here we might note the immense increase in infrastructural social power that the relatively elastic production of money brought about. What was observed at the time is now widely accepted – that is to say, England was able to defeat France in the struggle for European dominance during the eighteenth century because of its ability, and France's inability, to create credit-money (Crouzet 1999; Ferguson 2001). In contrast to Patterson's Bank of England, John Law's Banque Royale (1719) was an utter failure. A detailed comparative analysis cannot be presented here, but there are obvious significant differences. First, France did not have as powerful a bourgeois mercantile class, with such an intimate knowledge of, and confidence in, 'Dutch finance', to dictate terms to the state in the creation of financial and monetary institutions. Second, the French state could not provide the two crucial guarantees to its potential creditors – reliably collected tax revenues and gold standard convertibility of notes. In Weber's terms, France remained a *patrimonial* polity in which the state was a *source* of enrichment and not a *means* for the further creation of wealth. Finance was raised by the sale of offices, and tax collection remained privatized in the hands of tax-farmers. The beneficiaries in the traditional classes of the *ancien régime* had no interest in monetary and financial rationalization. It took the Revolution, and its failure, before France could attempt to emulate her rival in the nineteenth century.

It is significant that the two most successful states of the capitalist era – Britain and the USA – have also been the most indebted (Ferguson 2001: 133–41). The relationship between power, success, debt and the creation of money is complex. It involves virtuous cycles in which debt finances successful state activity and enables further credit to be extended on favourable terms to the borrower. Economic activity is stimulated and taxed at a rate which gives confidence that revenues are adequate to service the debt. On the other hand, of course, it may equally end in disaster: ventures may fail, taxes cannot

be collected, debts cannot be repaid and a vicious cycle of decline sets in. Any outcome will be the result of many factors in which chance and contingency, as ever, will play an important part. But any successful extension of 'infrastructural' power by means of credit-money can *only* take place within a legitimate institutional framework based on an acceptable and workable settlement between creditors and debtors.

## 7

## The Production of Capitalist Credit-Money

[T]he banker is not so much primarily a middleman in the commodity 'purchasing power' as a producer of this commodity.

Schumpeter 1934: 74

It is well enough that the people of the nation do not understand our banking and monetary system for, if they did, I believe that there would be a revolution before tomorrow morning.

Henry Ford Sr., quoted in Greider 1987: 55

[T]he overriding problem of all market-oriented societies is to find some means to maintain the working fiction of a monetary invariant so that debt contracts (the ultimate locus of value creation ...) may be written in terms of the unit at different dates.

Mirowski 1991: 579

[Greenspan] said, but as an ordinary matter, the Fed would function most efficiently by fulfilling the expectations it had created.

Mayer 2001: 225

The capitalist monetary system's distinctiveness is that it contains a social mechanism by which privately contracted debtor-creditor relations – for example, bank loans, credit card contracts – are routinely monetized. Private debt in its various forms (cheques, credit cards, promissory notes and so on) are converted into the most sought-after

'promise to pay' at the top of the hierarchy of promises. This the state's issue of money that is accepted in payment of taxes and final settlements. This transformation of privately contracted debts into money is achieved by complex linkages between the banking and financial system and the state and, in turn, between the state and its own creditors (bond-holders) and debtors (taxpayers). These relations are mediated by a central bank when it accommodates the banking system's private promises to pay by accepting – that is, buying – them with sovereign money. (As we noted in the previous chapter, the critical development in England was the discounting of the provincial bills of exchange by the Bank of England.) The various forms of private debt are thereby monetized – that is to say, exchanged for sovereign promises to pay that are fully transferable/acceptable anywhere within the monetary space defined by the money of account. These arrangements organize debt into a hierarchy according to criteria of risk of default – that is to say, a stratification order of debt/credit topped by the most sought-after credit – usually, but not always, a sovereign state's promise to pay. This stratification ranking occurs at every level and is organized according to differential rates of interest. The rate at which the central bank lends to the banking system as a whole is the 'base' rate. The dependent rates offered by the banking and financial system are calculated in accordance with an assessment of credit risk and profitability. For example, consumption loans to 'high-risk' borrowers may be several times greater than the basic rate. As we shall see, non-monetized forms of private credit ('near money') may achieve a limited degree of transferability – for example, endorsed cheques circulate in many economies.

The complex and constantly changing system is, as we have seen, the subject of quite divergent academic economic analyses. These tend to be driven more by theory than by a concern with the ethnography of credit-money creation – that is to say, how it actually happens. In this regard, financial journalists and, sometimes, the participants themselves are the better guides. However, as all sociologists and anthropologists should know, this method has obvious limitations. They would not be surprised to learn that one of the most knowledgeable financial writers in the USA thinks that the Federal Reserve's staff now do not have a very clear understanding of what they are doing, or even what they think that they are doing. Ironically, it would seem that as the monetary authorities have striven, in recent times, to make the system more transparent and subject to formal rules of operation, it has become less intelligible (Mayer 2001). With these caveats and difficulties in mind, the following is an attempt to set out an 'ideal type' of the social structure of monetary production in capitalist economies.

By the late nineteenth century, precious metal coinage had long since ceased to be the main *form* of money within the leading economies. Notes were convertible, as in principle were the book entries in bank accounts by which most of capitalism's business was routinely done. But the ratio of gold reserves to these other forms of money (including base metal coins) fell at a rapid rate. The guarantee was wearing thin. At the international level shortages of gold became increasingly acute (de Cecco 1974). Indeed, it is widely accepted that the gold standard did not, and could not, operate in the manner described in the orthodox commodity-money theory's specie-flow mechanism, enunciated by Hume in the eighteenth century.<sup>1</sup> In the first place, international transactions were denominated in sterling, and therefore it is more accurate to refer to a gold-sterling standard (Williams 1968; Ingham 1994). Second, the media of exchange and payment took the form of sterling credits produced by the City of London merchant-bankers. Like the domestic system, the international gold standard was able to operate with 'amazingly small reserves' (Bloomfield 1959: 26). None the less, the holding of reserves and the level of co-ordination required for the payments system to operate at both domestic and global levels greatly enhanced the power of central banks and the centralization and integration of monetary systems of the leading economies (Ingham 1984; Helleiner 1999). A 'pure' credit theory of money began to be considered at this time; but even the more astute writers – such as Simmel and Wicksell – did not think that the 'pure' functions of money could be performed without a precious metal guarantee (see chapters 1 and 3). However, the credibility of money is now based *exclusively* on the credibility of promises to pay. The institutional fact of money is now no more than this credibility, as it is established by the rules and conventions that frame and legitimize the acts of borrowing and lending by all the agents in the monetary system.

### The Social Structure of Capitalist Credit-Money

In a 'pure' credit-money system in which private debts are monetized, the question of the production of money may be considered in terms of demand and supply for credit. But the approach taken here differs in a number of important respects from the treatment in orthodox economics. First, supply and demand cannot be seen as independent variables in which one side determines the other – as in the endogenous-exogenous money debate. As emphasized in Part I, money is not a mere commodity that is amenable to this form of analysis. For

example, as we shall see, the state's demand for money – that is, its debt – is at one and the same time the basic source of the system's supply of money. Second, both the supply and demand for money are controlled and regulated according to criteria of creditworthiness – that is, they are socially constructed.

### The private sector endogenous demand for money

By the late twentieth century, it had become clear to the monetary authorities of all major capitalist economies that central banks have very little choice, *in the short term*, but to supply funds to enable the commercial banks to balance their books and to augment their reserves after they have met the demand for loans. Apart from any other considerations, not to accede to these requests would jeopardize the liquidity of the payments system. This was recognized by the Radcliffe Report in the UK in 1959 (Smithin 2003: 44, 96), but it took the failure of monetarism for it to be officially endorsed. '[M]onetary policy can never, at least in a world where money includes deposits with private sector banks, be simply a question of the authorities deciding on the quantity of money it will allow to circulate in the economy' (Bank of England 1993). However, as we shall see, the appearance of central bank control is carefully managed, but actual control is limited to the imposition of a base rate of interest that is considered to be commensurate with stable money prices.

Within this constraint, access to the credit-money that fuels the capitalist economy is determined by an assessment of creditworthiness, by what is considered to be an appropriate rate of interest, and by as much exploitation as the level of competition in the credit market allows. Loans by the banking system are priced in accordance with a profit-maximizing strategy that includes a calculation of the degree of risk of default. First, risk is taken to increase with the length of the term of the loan; second, it is considered to vary with the purpose of the loan – investment, especially if collateral is provided, is less risky than loans for consumption; and third, the borrowers' ability to repay – creditworthiness – is assessed. Apart from the higher levels of capitalist finance, credit rating is now a formal and almost completely depersonalized procedure, based on computer database information provided by the borrower and the credit rating agencies.<sup>2</sup> Credit rating and the production of a stratification order of risk are a clear example of what economic theory sees as 'market failure' – that is to say, where price and, in particular, a single price will not clear the market by bringing supply and demand into equilibrium. A single interest rate considered high enough to cover all risks of default



would also deter low-risk, creditworthy potential borrowers. Moreover, no rate would be high enough to deter the reckless, desperate and untrustworthy. Consequently, credit is 'rationed' (Stiglitz and Weiss 1981).

Thus, there are marked inherent structural inequalities in the credit market – clear examples of 'Matthew effects' such that 'for everyone that hath shall be given . . . ; but from him that hath not shall be taken away even what he hath' (the following is based on Ingham 2000b). In the upper levels of the capitalist system, credit relations may involve a significant degree of *lender* dependency. As the adage has it: if you owe the bank £5,000, you are in trouble, but if the sum is £50 m, the bank is in trouble. Frequently, such high levels of indebtedness and default need to be written off in order to preserve the payments system itself. In 1998, the US 'hedge fund' Long-Term Capital Management collapsed with debts to the banks of over \$100 bn. It was rescued, at the behest of the US Federal Reserve, by a Wall Street consortium. Things are different at the other end of the scale. In Britain, about 25 per cent of the adult population does not have a bank account or access to credit in the formal financial system. They fall prey to loan sharks' exorbitant annual rates of interest of over 250 per cent on loans of cash and physical coercion in their door-to-door collections. Workers and recipients of welfare payments have to use 'cash centres' or 'cash converters' to cash their cheques, and are typically charged an 'introduction fee' and up to 10 per cent of the value of the cheque. In the late 1990s 10 per cent of the UK population cashed more than £1.5 bn in more than 1,000 such centres.<sup>3</sup>

In general terms, we may refer to three very general types of credit relation or class position in relation to the 'social relations for the production' of money. The top level is constituted by the basic capitalist practice of borrowing in order to make more money. A middle level largely involves borrowing for consumption. (The degree of prudence will vary as Dickens's Mr Micawber noted and warned.) At the time of writing, the populations of many advanced capitalist economies continue to add to their already historically unprecedented levels of household indebtedness. The bottom level remains outside the credit-money-producing circuit and uses cash and quasi-barter (see also the discussion of local exchange trading schemes (LETS) in chapter 9).

In many of the advanced economies, cash is a marginal form of money, used in the criminal and informal economies, amongst other things, to avoid participation in the fundamental monetary relation – taxation. For obvious reasons, it is difficult to produce accurate estimates of the sizes of informal economies, and they vary consider-

ably (see the discussion of Argentina in chapter 8). However, the weeks leading up to the introduction of the euro in January 2002 led to the hurried disposal of large hoards of various national currencies. The movement out of deutschmarks into US dollars by East Europeans is thought to have had a significant impact on foreign exchange rates. By December 2001, the increased level of cash payments for luxury goods in Spain and Italy, for example, indicated that their 'black' economies were between 20 and 30 per cent of GDP (*Financial Times*, 13 December 2001, p. 10). The widespread circulation of *foreign cash* generally indicates a state's weakness and inability to impose an effective taxation system that will ensure the use of its money.<sup>4</sup>

### The banking system and the supply of money by the 'multiplier'

During the 1920s, it was beginning to be realized that the banking system's pyramid of debts was itself a means of producing new money.<sup>5</sup> Banks accept deposits on which they pay interest, and these debts (*liabilities* to their creditors) form a *basis* for lending. However, banks also extend loans unmatched by incoming deposits. These create deposits against which cheques may be drawn and are debts owed to the bank (*assets*). These debts become money and find their way, as deposits, into other banks in the system. Banking practice has developed through convention and regulation to the point where only a small *fraction* of deposits (*liabilities*) from creditor customers are kept as a reserve out of which to pay these depositors, should they wish to withdraw their money. As reserves earn no interest, banks strive to operate with the smallest fraction they can. Assuming that a bank operates with a 10 per cent fractional reserve, for every £100 deposited (*liabilities*), it is able to advance loans (*assets*) of £90. As it is spent, this monetized debt appears in bank accounts elsewhere in the system. In turn, further deposits are created against which these other banks may extend loans – in the first instance, a loan of £81 (£90 minus £9 (10 per cent fractional reserve) = £81). Eventually, the initial deposit of £100 could produce £900 of new money in the form of loans.

In accordance with the conventions of double-entry bookkeeping, the totals of deposits (*liabilities*) and loans (*assets*) in the *entire system* cancel each other. This gives the *appearance* that there exists a one-to-one relationship between deposits and loans, as is suggested by common sense – and, until fairly recently, endorsed by academic opinion. However, the accountancy rules and conventions do not capture the *dynamic* money-creating role of capitalist banking. As

the great French historian Marc Bloch observed, the 'secret' of the capitalist system consists of 'delaying payments and settlements and consistently making these deferrals overlap one another' (quoted in Arrighi 1994: 114). The time frame of the delays and deferrals that makes possible the expansion of both sides of the banking systems' balance sheet is established by conventional norms. There are significant cultural differences in this respect that would appear to impede the development of a truly global money market. East Asian economies – in particular Japan, as we shall see – operate with long and sometimes indefinite time frames in which debts are rolled over and extended. For the system to continue to produce money, debts must not only be repaid, eventually, but be repaid within the conventional time frame. The norms that prescribe the conventional delays and deferrals must be observed. In Keynes's phrase, the banks must 'march in step' in the construction of this systemic balance sheet of debits and credits in order to produce monetary expansion. Any disruption of the system's routines risks the collapse of the credit pyramid and the 'disappearance' of the money that is constituted by the creditor-debtor relations.<sup>6</sup> (As we shall see, in order that this complex system of credit and debt is not disrupted, it is imperative that every bank has access to short-term loans (overnight if necessary), usually from the central bank, in order to balance their books.)

However, not every private debt is fully monetized in this way. All money is credit, but not all credit becomes money. Private sector capitalist expansion typically involves the proliferation of debt contracts and private credit instruments with limited transferability (known as 'near money'). Usually, they will not be considered sufficiently creditworthy by the formal banking system. This is the site of an important struggle within capitalism between the creation of indigenous credit networks by firms and the banks' efforts to control the terms on which credit is created. The banks' privileged access to the state money at the top of the hierarchy gives them an advantage. As this credit is created outside the formally regulated system which has direct access to central bank money, the process is referred to as 'disintermediation'. As we shall see, this is potentially destabilizing, as, for example, in the UK's 'secondary banking crisis' in the early 1970s (for the USA, see Guttman 1994). Today, in a similar process known as 'securitization', enterprises raise money from outside the banking system by selling claims on their assets, including future income, directly to buyers. As the credit creation is not directly 'intermediated' by banks, it is frequently argued that this market-based raising of finance might bring about the 'end of banking' (see Martin 1998; Mayer 2001). However, this confuses a recurrent

cyclical pattern in capitalism with a long-term secular trend. 'Disintermediation' and the issue of private debt, or 'near money', occurs in all expansionary phases of the capitalist economy. None the less, it creates instability unless it is fully monetized by being discounted by banks that, in turn, have access to the central bank's sovereign money (see the discussion of Minsky's financial instability hypothesis in chapter 8). Furthermore, the purchase of these private credit instruments is made with borrowed bank money. The question of the degree of accommodation of privately created credit is, arguably, the fundamental dilemma faced by monetary authorities.

Public sector demand for money: state debt and the creation (supply) of 'high-powered money'

If a state is viable and can tax effectively, its promise to pay its debt (demand for money) will be the most sought-after, and consequently the basis for the creation of money (supply) in the banking system. The origins of the relationships were outlined in the previous chapter. In exactly the same way as a private clearing bank's creation of money by lending to a customer, the central bank creates a deposit for the state by accepting its promise to repay the loan – usually in the form of a government bond. The state is able to pay its debts to suppliers with cheques drawn on its account at the central bank. These will first be paid into the recipients' accounts held at their commercial bank, which, in turn, presents them at the central bank for payment. As the commercial banks are required to hold some of their assets as cash deposited with the central bank as liquid reserves for crisis management, the payments mechanism increases the commercial banks' reserve holdings. Mainstream economic theory refers to this as 'high-powered money' – that is, the 'base' money for the 'credit-money multiplier' of the most sought-after promise to pay. Accordingly, government borrowing and spending will, *ceteris paribus*, increase the potential to supply credit-money – that is, the capacity of the banking system to issue new debt.

Rather than issuing new bonds, a government and its central bank might engage in 'open market operations' in an attempt to regulate the supply of money. A government might instruct the central bank to buy or sell its existing securities on the money markets. On the one hand, if the central bank buys back bonds from the private sector, the effect is to permit a possible increase in the supply of credit-money on the base of increased reserves, as in the case of the sale of new bonds. On the other hand, the central bank may be instructed to sell bonds to the commercial banks in order to reduce their reserves and limit their

capacity to create credit-money through lending. In this model, cash reserves of high-powered money are held to operate exactly as bullion reserves would do under a precious metal standard. It was on these grounds that 'monetarists' argued that high-powered money could be controlled precisely enough to regulate the total money supply (exogenously determined money supply). We have seen in Part I that conceptual and methodological problems in measuring money quickly led to the abandonment of the doctrine. But these difficulties should not lead to the dismissal of the significance of so-called high powered money, as in some heterodox and post-Keynesian economics. As we have seen, it is not a question of endogenously or exogenously determined money; rather, these two terms express the two sides of the struggle over the production of credit-money that is typical of capitalism.

The experience of the late twentieth century would suggest that attempts *directly* to control the aggregate supply of money with high-powered money, or by any other method, are unworkable. The main instrument of monetary policy is now *indirect* control, through interest rates, of the propensity for indebtedness – that is, the demand for credit-money. Indeed, most central banks no longer give much weight to monetary aggregates. By its very nature, the creation of money in the capitalist system is indeterminate. Disintermediated credit creation is the norm, and the gap between the situation on the banks' balance sheets and the actual levels of debt may be considerable.<sup>8</sup> It would appear that '[i]n the real world banks extend credit, creating deposits in the process, and look for the reserves later. The question then becomes one of whether and how the Federal Reserve will accommodate the demand for reserves. In the very short run, the Federal Reserve has little or no choice about accommodating that demand; over time its influence can obviously be felt' (US central banker Alan Holmes, quoted in Henwood 1997: 220).

Any influence is not felt directly, but as a consequence of the fact that the central bank has the power and discretion to act as 'lender of last resort' in the event of the banks' inability to maintain the efflux and reflux of the payments system, without which the money disappears. The banks are ultimately dependent and, apart from any other consideration, have an interest in conforming to the central bank's requests concerning credit-money creation. The central bank's power derives from its production and control of the most sought-after promise to pay.<sup>9</sup> During the 'secondary banking' crisis in the UK in the early 1970s, for example, the Bank of England organized a 'life-boat' for sinking banks, in return for which the survivors were invited 'to submit themselves to voluntary supervision' (quoted in Mayer

2001: 113; for further illustrations, see Mayer 2001: chs 5 and 6). Other less compliant financial firms might find themselves excluded from any rescue.

### The creditworthiness of the state's high-powered money: budgets, taxes and bonds

Modern neo-chartalism, outlined in chapter 2, provides an alternative to the orthodox economic emphasis on the exogenous origins and impact of high-powered money that goes beyond merely asserting the contrary endogenous money position (Wray 1998; Bell 2000). It is acknowledged that governments can spend and create high-powered money at will, but it is argued that this could lead to excess reserves in the banking system that would eventually force down the interest rates (Bell 2000). The excess can be drained in two ways: first by taxes, and second by sales of government bonds to the banking system. In the first instance, taxpayers' cheques will debit their bank's account at the central bank. Second, government can instruct its (central) banker to offer bonds for sale to the banking system to drain an excess caused by its own spending. Thus, it is argued, Treasury bond sales are not a *borrowing* operation at all, but a means of removing excess reserves from the banking system in order to maintain interest rates.

Neo-chartalists seek to establish that the state does not in fact have *need of its citizens' money* from taxation and bond sales in order to spend.<sup>10</sup> But, as we noted in Part I, they appear to have missed the significance of the *political* nature of both *origins* and *functions* of the linkage between state spending, taxes and bonds in the capitalist system. These links did not originate, for example, in the function of draining excess reserves that might exert downward pressure on interest rates. Rather, they were the historical consequence of an emerging bourgeois class's resistance to the attempt of a powerful sovereign arbitrarily to control spending and taxation. Subsequently, the concern with the balance between spending, borrowing and taxation in, say, principles of sound money has become a matter of an implicit settlement between the state, capitalist 'rentiers' and the tax-paying capitalist producers and workers. Moreover, the stability of any settlement is greatly increased by its legitimization in terms of economic principles and practice. Ultimately, the political balance of these economic interests that the state is able to forge is concerned with checking its arbitrary power and establishing its creditworthiness – that is, its ability to pay its debts. This is not so much a matter of what the state is capable of in a *de facto* practical sense, but of how this is interpreted as legitimate or not by groups and classes (including the

state itself) whose struggle for economic existence produces money. This is the actual function of sound money principles. Holders of Treasury bonds must be encouraged to believe that the state can pay interest and redeem the bonds.

The state and the market *share* in the production of capitalist credit-money, and, as I have stressed, it is the *balance of power* between these two major participants in the capitalist process that produces *stable* money. First, the issue of government bond issues and open market operations can only take place if the terms on which they are offered are acceptable to the state's creditors – that is to say, if they are convinced, by whatever means, that the yields will adequately cover prospective inflation. In simple terms, the rules (discussed below) by which money is produced in the capitalist system depend, ultimately, on the willingness with which a state's debt will be accepted by an independent class of rentiers. Taxation and state securities are two essential elements, or social bonds, in the capitalist state. They provide the *actual* flows of money by debt creation and destruction. This takes place according to agreed rules, expressed in a budget, that satisfy conflicting and competing interest groups and render the process meaningful and legitimate. Any disruption has very serious consequences.

### The Working Fiction of the Invariant Standard

We should remind ourselves of the importance of the working fiction of an invariant monetary standard of abstract value. Inflation makes it difficult to calculate real rates of return, and the uncertainty hinders the contracting of debt for investment and the creation of value.<sup>11</sup> Most importantly, monetary depreciation may increase to a point where it is no longer possible to set a high enough rate of interest that will generate a positive rate of return for creditors without greatly increasing the likelihood of debtors' default. 'All permanent relations between debtors and creditors, which form the ultimate foundation of capitalism, become so utterly disordered as to be almost meaningless... There is no subtler, no surer means of overturning the existing basis of society' (Keynes 1919: 220). Again, it is the long-term rate of interest on state debt that sets the benchmark.

Until the twentieth century, the attempt to create an invariant standard consisted in the administrative *fixing* by the state's (later central) bank of an exchange rate between nominal money and a precious metal that also had a market value. (How this affected the price level need not concern us here, beyond noting, once more, that

the metallic standard was intended to generate trust in money as a store of value, rather than to establish specific exchange ratios between money and other commodities.) Today's pure credit-money standards have had to develop quite different methods for establishing credible money. These are ostensibly based on what is taken to be the objective knowledge of the economy provided by economic science, and how this is enacted by the state and its bank. The working fiction is now more clearly a function of the assessment of *both* the government's fiscal practice and its central bank's monetary policy. It is the role of the central bank to establish credibility in an invariant monetary standard in relation to the creditworthiness of fiscal policy and practice. Since the abandonment of monetarist attempts precisely to control the quantities of money in the system, credibility in stable money is assessed in relation to *procedural correctness* in arriving at interest rates that are intended to regulate the willingness to become indebted.

Current orthodoxy for establishing credibility in an invariant standard has developed out of the restructuring of the balance of power between the major economic groups and classes since the hyperinflation of the 1970s. How this new settlement was produced is discussed in the next chapter; here the basic elements of the monetary authorities' current practice are outlined (see, for example, Blinder 1999; Blinder et al. 2001; Issing 2001). It is characterized by the following general features.

The basic elements of monetary policy are generally formulated by the government, through its ministry of finance or treasury, in relation to the fiscal position – for example, the size of the budget deficit and the level of government expenditure, as discussed above. Additionally, central banks, in conjunction with the ministry of finance, construct substantive fiscal and financial rules of thumb, considered to be non-inflationary, for the state and its agencies to follow. For example, the 'Taylor rule' models interest rates as a linear function of the 'output gap' and the deviation of inflation from the explicit 'inflation target'. The issue is posed *explicitly* in the academic policy literature as an empirical question of the relative merits of rules versus discretion in the central bank's conduct of policy. Implicitly, it is a question of trust, in which simple rules have gained favour because they 'can be seen... as the means to ultimately ensure that credibility is earned and maintained, because they can be monitored by third parties' (Issing 2001: 42). But even their proponents do not advocate them as *prescriptive* economic policy tools, because their very simplicity does not provide a reliable economic analysis.

Most central banks now have a significant degree of independence in deciding the interest rate that is consistent with these policies and

achieving monetary stability. The intention is to depoliticize monetary policy by removing it from the direct influence of those interests most likely to exert inflationary pressures, most notably governments and their electorates' demands.

The primary policy objective of controlling inflation, with a few notable exceptions, is presented as an explicit inflation target in a range usually between 2 and 4 per cent. A central bank committee consisting of some of its own officials, technically expert co-opted economists, and, in some cases, representatives of the major economic interest groups, decides, after taking into account any rules, what short-term rate of interest will best achieve the target. Monetary authorities (primarily the central bank and ministry of finance) attempt to achieve, by means of regular and frequent meetings, a record of consistency in decision making in relation to the application of their own understanding of the monetary situation and any substantive rules that might have been formulated. (However, it should also be noted that this aim for consistency is frequently jeopardized by rivalries and conflicts between the two institutions and the indeterminacy of the experts' econometric models and data.)

It is now maintained that a record for consistency of decision making is best achieved by 'transparency' – that is to say, the open communication to the public realm of a reasoned case for any decision.<sup>12</sup> Consistency can be accomplished only in relation to a consensus on the meaning of the monetary situation as described by economic theory and econometric models. In this situation, as we shall see, the monetary authorities are engaged in the creation of an 'epistemic community' of understanding based on theoretical economic knowledge and routine practice. (However, transparent disagreements between experts may undermine the aim of consistency; see n. 18.) In short, the manifest aim is to depoliticize monetary policy, and place it in the hands of institutionally autonomous experts whose claim to neutrality is based on the application of positive economic science.

Once the state's fiscal creditworthiness has been formally rated by credit-rating agencies such as Standard and Poor and Moody's, or judged by an IMF or OECD report, and the central bank has established its credibility, then, the 'working fictions' are traded, in the forms of currencies and government bonds, on the global money markets. As an eminent American economist recently explained, 'central banks have fully established their anti-inflation credentials and the bond markets hold them accountable by the hour just in case there is a temptation to lapse' (Dornbusch 2001: 15).

### Economic theory, performativity and ideology

These current arrangements are the result of two related changes in the social structure of monetary systems at the end of the twentieth century. The first involved the expunging of inflation from the late 1970s onwards (see chapter 8). In a second change, the money markets, especially those in state bonds, became organized more impersonally, as they globalized after the 'big bang' deregulation of the major financial markets (see chapter 8). Hitherto, the buying and selling of government securities in 'open market' operations had been largely domestic affairs operated by a closed personal network, with very little public disclosure. The replacement of personal by institutional ownership and the growth of impersonal transnational markets required quite a different structure in order to operate. Formal, transparent rules and the formation of epistemic communities, based on a shared understanding of the markets' rules and the meaning of macro-economic indicators, replaced socially embedded trading. Markets can function only on the basis of shared understandings that give meaning to changing events and circumstances (H. White 1981). These new organizational arrangements are a means of creating common definitions of the situation.

As ever, economic theory has played an important role in the reconstruction of the latest versions of the practice of sound money. In particular, rational expectations theory may be seen as an expression of the changes outlined above. In this regard, academic economics sees the relationship between theory and practice as one in which the latter is brought closer to the theoretical optimum. However, on closer inspection, it is clear that the expertise and transparency of monetary policy making is not securely grounded in the basic tenets of mainstream monetary economics.<sup>13</sup> To be sure, central bankers pay lip-service to the basic tenets of orthodox monetary theory, especially the long-run correspondence of the quantity of money and the level of prices. But they acknowledge that this cannot guide their practice in dealing with what they see as short-term disequilibria. It is conceded that there is no satisfactory way of constructing empirically based models of these short-run effects, or of judging the relative merits of the models (Issing 2001: 7, 21). If 'the key issue of exactly how monetary policy impacts on "real" variables over time is still only imperfectly understood' (Issing 2001: 7), how, then, do central banks and their experts actually go about their business?<sup>14</sup> It seems that they do as they have done for several decades. Central banks depend on accumulated *conventional* wisdom on the most important empirical

signals of impending inflation.<sup>15</sup> These conventional signals are, of course, modelled in *ad hoc* econometric analyses, but 'a straightforward selection of the "best", if not the "true", reference model becomes a matter of *faith*' (Issing 2001: 40, emphasis added). If contemporary central banks are not applying the agreed, verified results of economic science to monetary policy, what do these acts of faith intend? What are twenty-first-century central banks doing?

Manifestly, they are attempting to establish a transparent procedural correctness that is assessed according the agreed organizational arrangements and the current macro-economic thinking. The construction of the institutional fact of stable money is established, in part, by the performativity of economic theory and practice conducted by experts (Searle 1995). The expert decisions are performative in the sense that the resulting utterances are intended to bring about the circumstances that they describe – as when Alan Greenspan defined the US Federal Reserve's role as 'fulfilling the expectations it had created'. Performativity is seen very clearly in the efficacy attributed to inflation targeting – that is to say, the belief that the mere setting of a target will bring about the intended result. It is widely held, for example, that the persistent and protracted deflation in Japan could be halted, and even reversed, if the central bank were to set a high inflation target. Moreover, it is important that the process of defining the situation – that is, the 'impression management' of the 'performance' – should be skilled (Goffman 1969 [1959]). Central banks 'must create an impression of competence... and quiet acquiescence' (Blinder et al. 2001: 23).

The two audiences to which central banks direct their performances are the public and the markets (see Blinder et al. 2001). 'Public' refers to *labour* and *productive capital*, and 'markets' are the *money markets* – especially the market in government bonds. These are the three major economic classes whose inflation expectations (or 'definition of the situation') will have a determinant impact on the stability of money's purchasing power. With the weakening of the alliance between the two producer classes after the 1970s, the markets are considered to be the most important of the monetary authorities' audiences, and '[s]ince this channel is dominated by expectations "convincing the markets" is part and parcel of monetary policy-making' (Blinder et al. 2001: 25). And, as we have noted, the money markets' assessment of the credibility of the commitment to stable money is now immediately decisive in its effect on the long-term interest rates of government bonds. With operational independence and transparency of deliberations established, any cut in short-term interest rates, for example, is less likely to be interpreted as a politically motivated loosening of monetary policy in response to demands from consumers, producers or the

government. Consequently, the money markets are less likely to demand and force higher compensatory rates on long-term bonds. Indeed, it is a measure of the success of the new practices that recently, on occasion, long-term interest rates have fallen to a level below those of the short-term rates. (This represents a reversal of the normal ratio, in which the market risk of long-term uncertainty is expressed in higher interest rates.)

In Part I it was argued that orthodox commodity theories of money have also played an ideological role in masking the social character of the creation of money. But the very nature of recent changes in the production of money would now appear to make it more difficult to *naturalize*, and ideologically to conceal, the social construction of money.<sup>16</sup> However, modern independent central banks continue to attempt ideologically to *universalize* social and political relations. At the most fundamental level, this is apparent in the concepts of both neutral money and a monetary policy that implicitly denies or conceals inequalities and opposing interests in the actual process of creating money. First, it is maintained that inflation is an unambiguous cost, borne equally by all members of society, and that it is possible in principle, if not yet accomplished in practice, to theoretically establish an optimum monetary policy that would minimize these costs (Issing 2001; Kirshner 1999). Second, monetary policy is informed by an underlying meta-theoretical assumption that there exists a discoverable, *naturally* optimally efficient state of affairs in the 'real' economy, which contains natural levels of unemployment, rates of interest and so on. In this, there can be no 'real' basis for opposed interests – only cognitive error and consequent sub-optimal solutions to common problems that have a universal impact. In this conception, the struggle for economic existence can only be the struggle for rationality.<sup>17</sup> However, as we shall see in the following chapter, both assumptions are demonstrably false, and make it difficult to explain the rise and fall of the 'great inflation' of the 1970s.

Following Weber, we might say that the manifest aim of modern central bank practice is to establish the highest level of *formal rationality* of inflation expectations. That is to say, central bank practice, as outlined above, attempts to establish a routine and *procedurally predictable* regime of co-ordinated expectations on the part of the bank and the money and capital markets. Such credentials are established through a record of exemplary policy decisions, which are formally rational in relation to the agreed causes of inflation or economic prospects in general, as pronounced in the epistemic community of academics, policy-makers and practitioners in the financial system. However, Weber also strongly argued that any semblance of *formal*

rationality in terms of predictable, routine conduct must have a *substantive* basis in the predictability of the particular *power relations* that underlie the conduct. The production of capitalist credit-money is at the core of the complex economic 'battle of man with man' – that is between debtors, creditors, taxpayers and government bond-holders. The question of sound finance, like the question of the value of money itself, is part of this struggle. As Wray has pointed out, if high-powered money grew on trees, it would be worth very little (Wray 2004: 106). High-powered money is the result of the struggle between debtors' demand for money and creditors' belief that the state can service its debt, which in turn depends on tax revenues. And it is the need to work for a taxable income that gives it value.

### Conclusions

As we shall see in the following chapter, the ability of monopoly capitalists to mark up prices, and of labour to mount successful wage claims, in the advanced economies has been moderated by the changes in the structure of power relationships that were outlined above. In short, the shift in the balance of power has been brought about by the intensification of global competition and its corollary – the weakening of trade unions and the creation of deregulated flexible labour markets. To a significant degree, central bank inflation forecasts will be maintained to the extent that this balance of power is also maintained. This is not to say that monetary policy does not have an effect, but rather that it is as *reinforcement* of any balance of power that has been forged. The current arrangements followed on the restructuring of the balance of power during the last two decades of the twentieth century.

Arguably, the most structurally fundamental struggle in capitalism is not that between productive capital and labour, but rather between debtor (producers and consumers of goods) and creditor (producers and controllers of money) classes and centres on two rates of interest – the long and the short. (The state has its own interest as a debtor, but is also the site of the struggle.) Rates of interest represent benchmarks, or terms of reference, for 'settlements' between conflicting groups. The central banks are the main mediators of these struggles, and all the recent changes in their organization and operation express the resurgence of money-capitalist creditor power. Central bankers are presented and, in some cases, present themselves as having the knowledge and capability to control the trajectory of the economy. But in reality this control is severely constrained. First, all the evidence points to the

fact that, at a given rate of interest, central banks must accommodate the private demand for money – that is, the money supply is endogenous. Second, central bank base rates seem relatively powerless to control asset prices in the money and financial markets. Indeed, it is argued that central banks are tempted to 'follow the markets' and deliver the interest rates that are 'embedded in asset prices' (Blinder 1999: 60).<sup>18</sup>

As we saw in Part I, the approach taken here rejects the concept of a 'natural' rate of interest that expresses the natural marginal productivity of the factors of production (see also Smithin 2003). Rather, the essence of capitalism is to be found in the calculation of, and switching between, *two possible courses of action* – the accumulation, production and control of credit-money ( $M-M_1$ ) and the production of commodities ( $M-C-M_1$ ) (see chapter 8, also Arrighi 1994; Minsky 1982; Keynes 1973 [1936]). Capitalism consists in the continuous comparison of money market rates and the profitability of satisfying wants by production in firms (Weber 1978: 96–7). Each side of the economy imposes limitations on, and continually threatens to perturb and impede, the operation of the other. For example, real (nominal rate minus inflation rate) rates of interest should neither be high enough to elicit a shift of capital from production, jeopardizing income generation for the servicing and repayment of debt, nor fall to a point that demotivates creditors. But the range of these limits is determined by the struggle between the two relatively autonomous sectors in capitalism's social structure. When the extremes of these limits are reached – that is, to say, in hyperinflation and debt deflation – the struggle may give way to a rebalancing of the power relations and a new settlement.