**Origins of Money and of Banking**

 **Glyn Davies**

**What is Money?**

At first sight the answer to this question seems obvious; the man or woman in the street would agree on coins and banknotes, but would they accept them from any country? What about cheques? They would probably be less willing to accept them than their own country's coins and notes but bank money (i.e. anything for which you can write a cheque) actually accounts for by far the greatest proportion by value of the total supply of money. What about I.O.U.s (*I owe you*), credit cards and gold? The gold standard belongs to history but even today in many rich people in different parts of the world would rather keep some of their wealth in the form of gold than in official, inflation-prone currencies. The attractiveness of gold, from an aesthetic point of view, and its resistance to corrosion are two of the properties which led to its use for monetary transactions for thousands of years. In complete contrast, a form of money with virtually no tangible properties whatsoever - electronic money - seems set to gain rapidly in popularity.

All sorts of things have been used as money at different times in different places. The alphabetical list below, taken from page 27 of *A History of Money by Glyn Davies*, includes but a minute proportion of the enormous variety of primitive moneys, and none of the modern forms.

*Amber, beads, cowries, drums, eggs, feathers, gongs, hoes, ivory, jade, kettles, leather, mats, nails, oxen, pigs, quartz, rice, salt, thimbles, umiacs, vodka, wampum, yarns, and zappozats (decorated axes).*

It is almost impossible to define money in terms of its physical form or properties since these are so diverse. Therefore any definition must be based on its functions.

**Functions of Money**

*Specific functions (mostly micro-economic)*

* Unit of account (abstract)
* Common measure of value (abstract)
* Medium of exchange (concrete)
* Means of payment (concrete)
* Standard for deferred payments (abstract)
* Store of value (concrete)

*General functions (mostly macro-economic and abstract)*

* Liquid asset
* Framework of the market allocative system (prices)
* A causative factor in the economy
* Controller of the economy

The table above comes from page 27 of *A History of Money*.

Not everything used as money as all the functions listed above. Furthermore the functions of any particular form of money may change over time. As Glyn Davies points out on page 28:

*"What is now the prime or main function in a particular community or country may not have been the first or original function in time, while what may well have been a secondary or derived function in one place may have been in some other region the original which gave rise to a related secondary function... The logical listing of functions in the table therefore implies no priority in either time or importance, for those which may be both first and foremost reflect only their particular time and place."*

He goes on to conclude from this that the best definition is as follows:

***Money is anything that is widely used for making payments and accounting for debts and credits.***

**Causes of the Development of Money**

"Money originated very largely from non-economic causes: from tribute as well as from trade, from blood-money and bride-money as well as from barter, from ceremonial and religious rites as well as from commerce, from ostentatious ornamentation as well as from acting as the common drudge between economic men."

One of the most important improvements over the simplest forms of early barter was the tendency to select one or two items in preference to others so that the preferred items became partly accepted because of their qualities in acting as media of exchange. Commodities were chosen as preferred barter items for a number of reasons - some because they were conveniently and easily stored, some because they had high value densities and were easily portable, and some because they were durable. These commodities, being widely desired, would be easy to exchange for others and therefore they came to be accepted as money.

To the extent that the disadvantages of barter provided an impetus for the development of money that impetus was purely economic but archaeological, literary and linguistic evidence of the ancient world, and the tangible evidence of actual types of primitive money from many countries demonstrate that barter was ***not*** the main factor in the origins and earliest development of money.

Many societies had laws requiring compensation in some form for crimes of violence, instead of the Old Testament approach of "an eye for an eye". The author notes that the word to *"pay"* is derived from the Latin *"pacare"* meaning originally to pacify, appease, or make peace with - through the appropriate unit of value customarily acceptable to both sides. A similarly widespread custom was payment for brides in order to compensate the head of the family for the loss of a daughter's services. Rulers have since very ancient times imposed taxes on or exacted tribute from their subjects. Religious obligations might also entail payment of tribute or sacrifices of some kind. Thus in many societies there was a requirement for a means of payment for blood-money, bride-money, tax or tribute and this gave a great impetus to the spread of money.

Objects originally accepted for one purpose were often found to be useful for other non-economic purposes and, because of their growing acceptability began to be used for general trading also, supplementing or replacing barter.

Thus the use of money evolved out of deeply rooted customs; the clumsiness of barter provided an economic impulse but that was not the primary factor. It evolved independently in different parts of the world. About the only civilization that functioned without money was that of the [Incas](http://www.projects.ex.ac.uk/RDavies/inca/).

**Primitive Forms of Money**

The use of primitive forms of money in the Third World and North America is more recent and better documented than in Europe and its study sheds light on the probable origins of modern money. Among the topics treated are the use of wampum and the custom of the potlatch or competitive gift exchange in North America, disc-shaped stones in Yap, cowrie shells over much of Africa and Asia, cattle, manillas and whales teeth.

Manillas were ornamental metallic objects worn as jewelry in west Africa and used as money as recently as 1949. They were an ostentatious form of ornamentation, their value in that role being a prime reason for their acceptability as money. Wampum's use as money in north America undoubtedly came about as an extension of its desirability for ornamentation. Precious metals have had ornamental uses throughout history and that could be one reason why they were adopted for use as money in many ancient societies and civilizations.

In Fijian society gifts of whales teeth were (and in certain cases still are) a significant feature of certain ceremonies. One of their uses was as bride-money, with a symbolic meaning similar to that of the engagement ring in Western society. Whales teeth were *"tambua"* (from which our word *"taboo"* comes) meaning that they had religious significance, as did the fei stones of Yap which were still being used as money as recently as the mid 1960s.

The potlatch ceremonies of Native Americans were a form of barter that had social and ceremonial functions that were at least as important as its economic functions. Consequently when the potlatch was outlawed in Canada (by an act that was later repealed) some of the most powerful work incentives were removed - to the detriment of the younger sections of the Indian communities. This form of barter was not unique to North America. Glyn Davies points out that the most celebrated example of competitive gift exchange was the encounter, around 950 BC, of Solomon and the Queen of Sheba. "Extravagant ostentation, the attempt to outdo each other in the splendour of the exchanges, and above all, the obligations of reciprocity, were just as typical in this celebrated encounter, though at a fittingly princely level, as with the more mundane types of barter in other parts of the world." (page 13).

Cattle are described by the author as mankind's "first working capital asset" (page 41). The religious use of cattle for sacrifices probably preceded their adoption for more general monetary purposes. For sacrifice quality - "without spot or blemish" - was important but for monetary purposes quantity was of more significance since cattle, like coins, can be counted. Obviously there were very practical reasons for the association between cattle and wealth but anthropological evidence from Africa in very recent times shows that when cattle are regarded as a form of money, not only health cattle but also scrawny ones will be valued to the detriment of the environment supporting them and their owners.

Glyn Davies quotes linguistic evidence to show how ancient and widespread the association between cattle and money was. The English words *"capital", "chattels"* and *"cattle"*have a common root. Similarly *"pecuniary"* comes from the Latin word for cattle *"pecus"* while in Welsh (the author's mother tongue) the word *"da"* used as an adjective means *"good"* but used as a noun means both *"cattle"* and *"goods"*.

The author also cautions that "one should not confuse the abstract concept of an ox as a unit of account or standard of value, which is its essential but not only monetary function, with its admittedly cumbersome physical form. Once that is realized (a position quickly reached by primitive man if not yet by all economists or anthropologists), the inclusion of cattle as money is easily accepted, in practice and logic." (Page 41). He also points out that until well into the present century the Kirghiz of the Russian steppes used horses as their main monetary unit with sheep as a subsidiary unit. Small change was given in lambskins.

**The Invention of Banking and Coinage**

The invention of banking preceded that of coinage. Banking originated in Ancient Mesopotamia where the royal palaces and temples provided secure places for the safe-keeping of grain and other commodities. Receipts came to be used for transfers not only to the original depositors but also to third parties. Eventually private houses in Mesopotamia also got involved in these banking operations and laws regulating them were included in the code of Hammurabi.

In Egypt too the centralization of harvests in state warehouses also led to the development of a system of banking. Written orders for the withdrawal of separate lots of grain by owners whose crops had been deposited there for safety and convenience, or which had been compulsorily deposited to the credit of the king, soon became used as a more general method of payment of debts to other persons including tax gatherers, priests and traders. Even after the introduction of coinage these Egyptian grain banks served to reduce the need for precious metals which tended to be reserved for foreign purchases, particularly in connection with military activities.

Precious metals, in weighed quantities, were a common form of money in ancient times. The transition to quantities that could be counted rather than weighed came gradually. On page 29 of *A History of Money* Glyn Davies points out that the words *"spend", "expenditure",* and *"pound"* (as in the main British monetary unit) all come from the Latin *"expendere"* meaning *"to weigh"*. On page 74 the author points out that the basic unit of weight in the Greek speaking world was the *"drachma"* or *"handful"* of grain, but the precise weight taken to represent this varied considerably, for example from less than 3 grams in Corinth to more than 6 grams in Aegina. Throughout much of the ancient world the basic unit of money was the *stater*, meaning literally *"balancer"* or *"weigher"*. The *talent* is a monetary unit with which we are familiar with from the Parable of the Talents in the Bible. The talent was also a Greek unit of weight, about 60 pounds.

Many primitive forms of money were counted just like coins. Cowrie shells, obtained from some islands in the Indian Ocean, were a very widely used primitive form of money - in fact they were still in use in some parts of the world (such as Nigeria) within living memory. "So important a role did the cowrie play as money in ancient China that its pictograph was adopted in their written language for *money*." (page 36) Thus it is not surprising that among the earliest countable metallic money or "coins" were "cowries" made of bronze or copper, in China.

In addition to these metal "cowries" the Chinese also produced "coins" in the form of other objects that had long been accepted in their society as money e.g. spades, hoes, and knives. Although there is some dispute over exactly when these developments first took place, the Chinese tool currencies were in general use at about the same time as the earliest European coins and there have been claims that their origins may have been much earlier, possibly as early as the end of the second millennium BC. The use of tool coins developed (presumably independently) in the West. The ancient Greeks used iron nails as coins, while Julius Caesar regarded the fact that the ancient Britons used sword blades as coins as a sign of their backwardness. (However the Britons did also mint true coins before they were conquered by the Romans).

These quasi-coins were all easy to counterfeit and, being made of base metals, of low intrinsic worth and thus not convenient for expensive purchases. True coinage developed in Asia Minor as a result of the practice of the Lydians, of stamping small round pieces of precious metals as a guarantee of their purity. Later, when their metallurgical skills improved and these pieces became more regular in form and weight the seals served as a symbol of both purity and weight. The first real coins were probably minted some time in the period 640 - 630 BC. Afterwards the use of coins spread quickly from Lydia to Ionia, mainland Greece, and Persia.

**Greek Coinage**

One of the smaller Greek coins was the silver *obol*. In the Attic standard of weights and coinage six silver obols were worth one silver drachma. It is interesting to note that before the development of coinage six of the pointed spits or elongated nails used as tool currency constituted a customary handful similar to that of the even earlier grain-based methods. Therefore one of the early Greek coins, the obol, was simply a continuation of a primitive form of money - the iron spit or pointed rod.

Inflation was a problem even in the early days of coin production. In 407 BC Sparta captured the Athenian silver mines at Laurion and released around 20,000 slaves. As a result Athens was faced with a grave shortage of coins and in 406 and 405 BC issued bronze coins with a thin plating of silver. The result was that the shortage became even worse. Good coins tended to disappear from circulation since people naturally kept them and used the new coins instead in order to get rid of them.

This gave rise to what is probably the world's first statement of Gresham's law, that bad money drives out good, in Aristophanes' play, *The Frogs*, produced in 405 BC. Aristophanes wrote "the ancient coins are excellent...yet we make no use of them and prefer those bad copper pieces quite recently issued and so wretchedly struck." These base coins were demonetized in 393 BC.

Considerable rivalry developed between different currencies. "In coinage as in other matters the Greek city-states strove desperately for predominance, as did their arch-rivals the Persian emperors."

City-states with strong and widely accepted currencies would have gained prestige. In the 1960s newly independent countries in the Third World took pride in the trappings of nationhood - their own airlines, national banks, and currency. The city states of ancient Greece took a similar pride in their currencies - as is suggested by the beauty of their coins. Glyn Davies quotes another author, J. Porteous, who wrote " the fifth century saw the minting of the most beautiful coins ever made." He also quotes two historians, Austin and Vidal-Naquet, who claimed that "in the history of Greek cities coinage was always first and foremost a civic emblem. To strike coins with the badge of the city was to proclaim one's political independence."

Coercion played a role in establishing monetary uniformity. In 456 BC Athens forced Aegina to take Athenian 'owls' and to stop minting her own 'turtle' coinage and in 449 BC Athens issued an edict ordering all 'foreign' coins to be handed in to the Athenian mint and compelling all her allies to use the Attic standard of weights, measures and money. The conquests of Alexander the Great brought about a large degree of monetary uniformity over much of the known world. His father, Philip, had issued coins celebrating his triumph in the chariot race in Olympic games of 356 BC - an example of the use of coins as propaganda.

The Roman emperors made even more extensive use of coins for propaganda, one historian going so far as to claim that "the primary function of the coins is to record the messages which the emperor and his advisers desired to commend to the populations of the empire."

On pages 85-86, Glyn Davies points out that "coins were by far the best propaganda weapon available for advertising Greek, Roman or any other civilization in the days before mechanical printing was invented."

**Money Exchange and Credit Transfer**

The great variety of coinages originally in use in the Hellenic world meant that money changing was the earliest and most common form of Greek banking. Usually the money changers would carry out their business in or around temples and other public buildings, setting up their trapezium-shaped tables (which usually carried a series of lines and squares for assisting calculations), from which the Greek bankers, the *trapezitai* derived their name, much as our name for *bank* comes from the Italian *banca* for bench or *counter*. The close association between banking, money changing and temples is best known to us from the episode of Christ's overturning the tables in the Temple of Jerusalem *(Matthew 21.12)*.

Money changing was not the only form of banking. One of the most important services was *bottomry* or lending to finance the carriage of freight by ships. Other business enterprises supported by the Greek bankers included mining and construction of public buildings. The most famous and richest of all was Pasion who started his banking career in 394 BC as a slave in the service of two leading Athenian bankers and rose to eclipse his masters, gaining in the process not only his freedom but also Athenian citizenship. In addition to his banking business he owned the largest shield factory in Greece and also conducted a hiring business lending domestic articles such as clothes, blankets, silver bowls etc. for a lucrative fee.

When Egypt fell under the rule of a Greek dynasty, the Ptolemies (323-30 BC) the old system of warehouse banking reached a new level of sophistication. The numerous scattered government granaries were transformed into a network of grain banks with what amounted to a central bank in Alexandria where the main accounts from all the state granary banks were recorded. This banking network functioned as a *giro* system in which payments were effected by transfer from one account to another without money passing. As double entry booking had not been invented credit transfers were recorded by varying the case endings of the names involved, credit entries being in the genitive or possessive case and debit entries in the dative case.

Credit transfer was also a characteristic feature of the services provided in Delos which rose to prominence in banking during the late second and third centuries BC. As a barren offshore island its inhabitants had to live off their wits and make the most of their two great assets - the island's magnificent natural harbour and the famous temple of Apollo - around which their trading and financial activities developed. Whereas in Athens banking, in its early days, had been carried on exclusively in cash, in Delos cash transactions were replaced by real credit receipts and payments made on simple instructions with accounts kept for each client.

The main commercial rivals of Delos, Carthage and Corinth, were both destroyed by Rome and consequently it was natural that the Bank of Delos should become the model most closely imitated by the banks of Rome. However their importance was limited by the Roman preference for cash transactions with coins. Whereas the Babylonians had developed their banking to a sophisticated degree because their banks had to carry out the monetary functions of coinage (since coins had not been invented), and the Ptolemaic Egyptians segregated their limited coinage system from their state banking system to economise on the use of precious metals, the Romans preferred coins for many kinds of services which ancient (and modern) banks normally provided. After the fall of the Roman Empire banking was forgotten and had to be re-invented much later.

Banking re-emerged in Europe at about the time of the Crusades. In Italian city states such as Rome, Venice and Genoa, and in the fairs of medieval France, the need to transfer sums of money for trading purposes led to the development of financial services including *bills of exchange*. Although it is possible that such bills had been used by the Arabs in the eighth century and the Jews in the tenth, the first for which definite evidence exists was a contract issued in Genoa in 1156 to enable two brothers who had borrowed 115 Genoese pounds to reimburse the bank's agents in Constantinople by paying them 460 bezants one month after their arrival.

The Crusades gave a great stimulus to banking because payments for supplies, equipment, allies, ransoms etc. required safe and speedy means of transferring vast resources of cash. Consequently the Knights of the Temple and the Hospitallers began to provide some banking services such as those already being developed in some of the Italian city states.

**The Royal Monopoly of Minting**

One of the reasons for the rapid spread of the use of coins was their convenience. In situations where coins were generally acceptable at their nominal value there was no need to weigh them and in everyday transactions where relatively small numbers were involved counting was quicker and far more convenient than weighing. By the Middle Ages monarchs were able to use this convenience as a source of profit.

On page 168 Glyn Davies writes, "because of the convenience of royally authenticated coinage as a means of payment, and with hardly any other of the general means of payment available in the Middle Ages being anything like as convenient, coins commonly carried a substantial premium over the value of their metallic content, more than high enough to cover the costs of minting. Kings could turn this premium into personal profit; hence ... the wholesale regular recall of coinage... first at six yearly, then at three-yearly intervals, and eventually about every two years or so. In order to make a thorough job of this short recycling process it was essential that all existing coins should be brought in so as to maximize the profit and, in order to prevent competition from earlier issues, the new issues had to be made clearly distinguishable by the authorities yet readily acceptable to the general public."

These recoinage cycles were far more frequent than was justified by wear and tear on the coins but the profits from minting, known as *seigniorage*, supplemented the revenue that English monarchs raised from the efficient systems of taxation introduced by the Normans. However, revenue from minting depended on public confidence in the coinage and consequently an elaborate system of testing was introduced.

"Anyone who had occasion to handle coins of silver or gold in any volume, whether merchants, traders, tax collectors, the King himself, the royal treasury, or the sheriffs, required reliable devices for testing the purity of what passed for currency." (Page 144). One of these methods was rough and ready - the use of touchstones which involved an examination of the colour trace left by the metal on the surface of a schist or quartz stone. The other, the *Trial of the Pyx*, was a test held in public before a jury. This Trial involved the use of 24 "touch needles", one for each of the traditional gold carats, with similar test pieces for silver.

Thus, despite the challenge of counterfeiters, governments controlled coin production and hence the money supply. Not until the rise of commercial banking and the widespread adoption of paper money was this monopoly broken, with profound consequences for the growth of [democracy](http://www.projects.ex.ac.uk/RDavies/arian/government.html).

**Paper Money**

In China the issue of paper money became common from about AD 960 onwards but there had been occasional issues long before that. A motive for one such early issue, in the reign of Emperor Hien Tsung 806-821, was a shortage of copper for making coins. A drain of currency from China, partly to buy off potential invaders from the north, led to greater reliance on paper money with the result that by 1020 the quantity issued was excessive, causing inflation. In subsequent centuries there were several episodes of hyperinflation and after about 1455, after well over 500 years of using paper money, China abandoned it.

**Bills of Exchange**

With the revival of banking in western Europe, stimulated by the Crusades, written instructions in the form of bills of exchange, came to be used as a means of transferring large sums of money and the Knights Templars and Hospitallers functioned as bankers. (It is possible that the Arabs may have used bills of exchange at a much earlier date, perhaps as early as the eighth century). The use of paper as currency came much later.

**Goldsmith Bankers**

During the English Civil War, 1642-1651, the goldsmith's safes were secure places for the deposit of jewels, bullion and coins. Instructions to goldsmiths to pay money to another customer subsequently developed into the *cheque* (or *check* in American spelling). Similarly goldsmiths' receipts were used not only for withdrawing deposits but also as evidence of ability to pay and by about 1660 these had developed into the *banknote*.

**Virginian Tobacco**

In England's American colonies a chronic shortage of official coins led to various substitutes being used as money, including, in Viriginia, tobacco, leading to the development of paper money by a different route. Tobacco leaves have drawbacks as currency and consequently certificates attesting to the quality and quantity of tobacco deposited in public warehouses came to be used as money and in 1727 were made legal tender.

**Gold Standard**

Although paper money obviously had no intrinsic value its acceptability originally depended on its being backed by some commodity, normally precious metals. During the Napoleonic Wars convertibility of Bank of England notes was suspended and there was some inflation which, although quite mild compared to that which has occurred in other wars, was worrying to contemporary observers who were used to stable prices and, in accordance with the recommendations of an official enquiry Britain adopted the gold standard for the pound in 1816. For centuries earlier silver had been the standard of value. The pound was originally an amount of silver weighing a pound. France and the United States were in favour of a bimetallic standard and in 1867 an international conference was held in Paris to try and widen the area of common currencies based on coins with standard weights of gold and silver. However when the various German states merged into a single country in 1871 they chose the gold standard. The Scandinavian countries adopted the gold standard shortly afterwards. France made the switch from bimetallism to gold in 1878 and Japan, which had been on a silver standard, changed in 1897. Finally, in 1900, the United States officially adopted the gold standard.

With the outbreak of the First World War in 1914 Britain decided to withdraw gold from internal circulation and other countries also broke the link with gold. Germany returned to the gold standard in 1924 when it introduced a new currency, the Reichsmark and Britain did the following year, and France in 1928. However the British government had fixed the value of sterling at an unsustainably high rate and in the worldwide economic crisis in 1931 Britain, followed by most of the Commonwealth (except Canada) Ireland, Scandinavia, Iraq, Portugal, Thailand, and some South American countries abandoned gold.

The United States kept the link to gold and after the Second World War the US dollar replaced the pound sterling as the key global currency. Other countries fixed their exchange rates against the dollar, the value of which remained defined in terms of gold. In the early 1970s the system of fixed exchange rates started to break down as a result of growing international inflation and the United States abandoned the link with gold in 1973.

**Intangible Money**

The break with precious metals helped to make money a more elusive entity. Another trend in the same direction is the growing interest in forms of electronic money from the 1990s onwards. In some ways e-money is a logical evolution from the wire transfers that came about with the widespread adoption of the telegraph in the 19th century but such transfers had relatively little impact on the everyday shopper.

The evolution of money has not stopped. Securitisation, the turning of illiquid assets into cash, developed in new directions in the 1990s. One much publicised development was the invention of bonds backed by intangible assets such as copyright of music, e.g.[Bowie bonds](http://www.projects.ex.ac.uk/RDavies/arian/bowiebonds.html), named after those issued by the popstar David Bowie. (See also [Something Wild](http://www.projects.ex.ac.uk/RDavies/arian/wild.html), the first novel dealing with Bowie bonds).