HISTORY OF MONEY

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Mesopotamia - 2nd / 3rd millenium BC - "Money" - "promissory notes" - trading - borrowing & lending - Compound interest.

Coins - Greece 600 BC - China 3rd C, BC - Roman coinage system

Money has been used in different forms across the world for over 4,000 years. Before that time, it is assumed that a system of bartering was in place. Bartering is a direct trade of goods and services—I'll give you a stone axe if you help me kill a mammoth, for instance—but such arrangements take time. You have to find someone who thinks an axe is a fair trade for having to face the 12-foot tusks on a beast that doesn't take kindly to being hunted. If that didn't work, you would have to alter the deal until someone agreed to the terms. One of the great achievements of money was increasing the speed at which business, whether mammoth slaying or monument building, could be done.

Slowly, a type of prehistoric currency involving easily traded goods like animal skins, salt and weapons developed over the centuries. These traded goods served as the medium of exchange even though the unit values were still negotiable. This system of barter and trade spread across the world, and it still survives today in some parts of the globe.

The history of money concerns the development of social systems that provide at least one of the functions of money. Such systems can be understood as means of trading wealth indirectly; not directly as with barter. Money is a mechanism that facilitates this process. Money may take a physical form as in coins and notes, or may exist as a written or electronic account. It may have intrinsic value (commodity money), be legally exchangeable for something with intrinsic value (representative money), or only have nominal value (fiat money).

The ancient Egyptians used lumps of metals to trade with.

Objects that occurred rarely in nature and whose circulation could be efficiently controlled emerged as units of value for interactions and exchange. These included shells such as mother-of-pearl that were widely circulated in the Americas and cowrie shells that were used in Africa, Europe, Asia and Australia.

Cowrie Shells from East Africa

Native copper, meteorites or native iron, obsidian, amber, beads, copper, gold, silver and lead ingots have variously served as currency. People even used live animals such as cows until relatively recent times as a form of currency.

The Celts in ancient Ireland also used ring money, plus bracelet money. The Celts also liked to wear their wealth. The ancient Africans invented knife money - metal worked into shapes, generally of tiny tools. In other places in the world, people tried to use rice, or bread, or chocolate as money. But that did not work very well. The food went bad, or it was eaten.

Coinage as commodity money owes its success largely to its portability, durability, transportability and inherent value. Additionally, political leaders could control the production of coins – from mining, smelting, minting - as well as their circulation and use. Other forms of wealth and money, such as cows, successfully served pastoral societies, but weren't easy to transport – and of course were susceptible to ecological disasters.

No one knows for sure who first invented coinage, but historians believe metal objects were first used as money as early as 5,000 B.C. The Mesopotamian shekel – the first known form of currency – emerged nearly 5,000 years ago.

Sometime around 770 B.C., the Chinese moved from using actual tools and weapons as a medium of exchange to using miniature replicas of the same tools cast in bronze. Nobody wants to reach into their pocket and impale their hand on a sharp arrow so, over time, these tiny daggers, spades, and hoes were abandoned for the less prickly shape of a circle, which became some of the first coins. Although China was the first country to use recognizable coins, the first minted coins were created not too far away in Lydia (now western Turkey) with the earliest known mints dating to 700, 650 and 600 B.C. In Asia Minor, (Lydia and Ionia) the elite used stamped silver and gold coins to pay armies of mercenaries.

In 600 B.C., Lydia's King Alyattes minted the first official currency. The coins were made from electrum, a mixture of silver and gold that occurs naturally, and stamped with pictures that acted as denominations. In the streets of Sardis, circa 600 B.C., a clay jar might cost you two owls and a snake. Lydia's currency helped the country increase both its internal and external trade, making it one of the richest empires in Asia Minor. It is interesting that when someone says, "as rich as Croesus", they are referring to the last Lydian king who minted the first gold coin. Unfortunately, minting the first coins and developing a strong trading economy couldn't protect Lydia from the swords of the Persian army.

The discovery of hordes of coins of lead, copper, silver and gold all over the globe suggests that coinage – especially in Europe, Asia and North Africa – was recognized as a medium of commodity money at the beginning of the first millennium A.D. The wide circulation of Roman, Islamic, Indian and Chinese coins points to premodern commerce (1250 B.C. - A.D. 1450).

Money soon became an instrument of political control. Taxes could be extracted to support the elite and armies could be raised. However, money could also act as a stabilizing force that fostered nonviolent exchanges of goods, information and services within and between groups.

Between 700 and 600 BC, larger cities and civilizations began to use coins made from metal. Early coins were made of all sizes and shapes. Some coins had holes in the centre so they could be carried on a string. Eventually, coins were minted by the local ruler or king. These coins were more precisely made and had a stamp on them saying that they were backed by the king. These coins allowed for easier commerce as they didn't have to be constantly weighed.

Just when it looked like Lydia was taking the lead in currency developments, around 700 B.C., the Chinese moved from coins to paper money. Paper bills were first used by the Chinese, who started carrying folding money during the Tang Dynasty (A.D. 618-907) — mostly in the form of privately issued bills of credit or exchange notes — and used it for more than 500 years before the practice began to catch on in Europe in the 17th century.

By the time Marco Polo visited in 1271 A.D., the emperor had a good handle on both money supply and various denominations. In the place where the American bills say, "In God We Trust," the Chinese inscription warned, "Those who are counterfeiting will be decapitated."

Europeans were still using coins all the way up to the 16th century, helped along by acquisitions of precious metals from colonies to keep minting more and more cash. Eventually, the banks started using bank notes for depositors and borrowers to carry around instead of coins. These notes could be taken to the bank at any time and exchanged for their face values in silver or gold coins. This paper money could be used to buy goods and operated much like currency today, but it was issued by banks and private institutions, not the government, which is now responsible for issuing currency in most countries.

The first paper currency issued by European governments was actually issued by colonial governments in North America. Because shipments between Europe and the colonies took so long, the colonists often ran out of cash as operations expanded. Instead of going back to a barter system, the colonial governments used IOUs that traded as a currency. The first instance was in Canada, then a French colony. In 1685, soldiers were issued playing cards denominated and signed by the governor to use as cash instead of coins from France.

PROMISORY NOTES

500 piastre promissory note issued and hand-signed by Gen. Gordon during the Siege of Khartoum (1884) payable six months from the date of issue.[13]

In China during the Han Dynasty promissory notes appeared in 118 BC and were made of leather. The Romans may have used promissory notes in 57 AD as a durable lightweight substance as evidence of a promise in that time have been found in London.

Historically, promissory notes have acted as a form of privately issued currency. Flying cash or *feiqian* was a promissory note used during the Tang dynasty (618 – 907AD). Flying cash was regularly used by Chinese tea merchants, and could be exchanged for hard currency at provincial capitals. The Chinese concept of promissory notes was introduced by Marco Polo to Europe.[]

According to tradition, in 1325AD a promissory note was signed in Milan. However, according to a travelogue of a visit to Prague in 960AD by Ibrahim ibn Yaqub, small pieces of cloth were used as a means of trade, with these cloths having a set exchange rate versus silver. Around 1150 the Knights Templar issued promissory notes to pilgrims, pilgrims deposited their valuables with a local Templar preceptory before embarking, received a document indicating the value of their deposit, then used that document upon arrival in the Holy Land to retrieve their funds in an amount of treasure of equal value.

There is evidence of promissory notes being issued in 1384AD between Genoa and Barcelona, although the letters themselves are lost. The same happens for the ones issued in Valencia in 1371AD by Bernat de Codinachs for Manuel d'Entença, a merchant from Huesca (then part of the Crown of Aragon), amounting a total of 100 florins. In all these cases, the promissory notes were used as a rudimentary system of paper money, for the amounts issued could not be easily transported in metal coins between the cities involved. Ginaldo Giovanni Battista Strozzi issued an early form of promissory note in Medina del Campo (Spain), against the city of Besançon in 1553. However, there exists notice of promissory notes being in used in Mediterranean commerce well before that date.

In 2005, the Korean Ministry of Justice and a consortium of financial institutions announced the service of an electronic promissory note service, after years of development, allowing entities to make promissory notes (notes payable) in business transactions digitally instead of on paper, for the first time in the world. [

The history of compound interest goes back thousands of years, at least to Babylon. What compounding means is the adding of accumulated interest back to the principal so that interest is earned on interest from that moment on (Wickipedia; the peoples dictionary). This is far different than simple interest, which means that the principle remains separate from the interest, which is paid to the creditor at various intervals, and so is not added to the principal amount. In other word, compound interest is when you put your money in a bank, you will normally receive interest. Interest is a percentage received on the invested amount for a period of (usually) a year.

(The following three sections on Greek, Chinese and Roman coinage are more detailed and if I had been reading this to you on a Wednesday morning I would probably have summarised and curtailed it quite severely)

GREEK COINAGE

The first Greek coins appeared in Aegina c. 600 BC (or even earlier) which were silver and used a turtle as a symbol of the city's prosperity based on maritime trade. Athens and Corinth soon followed Aegina's lead. The birth of coinage in wider Greece, though, was not really an invention of convenience but a necessity, driven by the need to pay mercenary soldiers. These warriors required a convenient way to carry their wages and the state needed a method of payment they could equally apply to everyone. For maritime trade especially, barter continued to be the most common form of exchange as the problem with coinage in the ancient world was that the value of coins between city-states was often different. Still, for the citizens of a particular city and its surrounding territories coinage became a very useful way to buy and sell goods, and it was convenient for the state to use coins to pay for small public services such as participating in law courts. So convenient was this new portable wealth that poorer Greeks would carry their coins in their mouths when they went to market, and richer Greeks now had a handy means of storing (and hiding) their wealth.

Some larger states were able to impose their currency on other city-states and have it accepted as a means of exchange. The Athenian silver coinage of the 5th century BCE is an example, and perhaps it was the first case of a single currency being used by different states, the members of the Delian League. Examples of the Athenian silver owl tetradrachms have been found as far afield as Egypt, Palestine, Arabia, and Bactria. The Arcadian League was another organisation with a common coinage. Similarly, Alexander the Great would use his coins across the Macedonian empire with many states still minting them two centuries after his death. Other contemporary states would copy the Greek approach to coins and produce their own similar types, such as the Etruscans and Carthaginians.

Greek coins were made using mostly silver but also gold, electrum (a naturally occurring alloy of silver and gold), copper alloy, and bronze. The metals were melted in a forge hearth and then, to standardise the size and weight of each blank coin (flans), the molten metal was poured into moulds or pre-prepared hemispherical vessels. Later, another method was to cut slices from metal cylinders made the correct diameter.

Meanwhile, an engraver carved the design (in relief or incised) onto metal dies of hardened bronze or iron, one for each side of the coin (early coins had only one side stamped). In some mints during the Classical period such as in southern Italy and Sicily, the coin engravers even signed their work. One die (usually the obverse side) was set in an anvil and the blank metal disk was placed on top, warmed to make it slightly soft. The minter then held in his hand the other die and hammered it on top of the blank disk. The strike would then leave an impression on both sides of the coin. Sometimes old coins were restamped with new designs.

Different weights of coins were used to create denominations ranging from the obol (six of which equalled one drachma) to the double octadrachma. What could be purchased with coins changed over time, but, as an example, entrance to the theatre festivals at Athens initially cost two obols in the early 5th century BC, which was a day's labour. Most coins, though, were minted in silver and so were of relatively high value, perhaps equal to one week's work for most citizens. Only in the Hellenistic Period did smaller denominations become more widespread.

Greek coins of particular poleis or city-states often carried specific designs which were used for centuries, becoming instantly recognisable symbols of that city. Gods and figures from Greek mythology were especially popular, but all manner of subjects were chosen to represent particular cities. Strangely, the reverse side of early coins usually had only a simple geometric shape stamped into them, especially a quartered square. Later, minters and administrators saw that the reverse side was an opportunity to double the visual message. Designs sometimes had a relation to the coin's value too, as when Athens added an extra olive branch to distinguish the similar hemidrachma and drachma.

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CHINESE COINAGE

China has a very long tradition of using coins. The same design of coinage lasted 2,000 years and it was the first country to introduce paper money. Other forms of currency have been used; particularly in foreign trade a 'bolt of silk' had a standard monetary value; government officials used to be paid in hundredweights of rice. For many centuries remote communities bartered crops at markets rather than using 'money'. The quality and value of coinage reflected the fortunes of the ruling dynasty, a decline in fortunes led to devalued and debased currency.

Cowrie shells were used as currency back in the Shang dynasty. The shells probably came from either the South China Sea or the Indian Ocean. As they are rare and do not occur in China the amount of money was under tight control. Cowrie shells continued to be used in remote south western areas as late as the Ming dynasty (1368 – 1644).

As far back as the Western Zhou dynasty [c. 1000BCE], China used metal coins. Advanced Chinese bronze workmanship gave the necessary technology for the accurate casting of coins. As many as 80 coins were cast at a time using a mould made of clay, stone, bronze or sand. The individual coin moulds were interconnected in the form of a 'coin tree'. Initially bronze replicas of cowrie shells were produced before going on to produce castings of small spades and knives. Another form used in the Warring States period was round money with a round hole, probably modelled on jade 'bi' rings.

Ancient Chinese coins.

Qin Dynasty Emperor Shihuangdi (221 BCE) standardized money, along with everything else, when he introduced the ban liang coin. It had a standard weight in the form of a round disc with a square hole. This shape of coin remained in use up to the 20th century. He also divided all currency between gold/silver and bronze. The square central hole allows the coins to be conveniently and safely strung together (the earlier knife and spade currency often had a hole for the same reason); the shape symbolizes the union of heaven (round) and earth (square). The copper coins were cast in a bronze mould and had two or four characters inscribed on them. A thousand coins strung together divided into ten groups of 100 were the next unit of currency as 'a string of cash'. The string would be braided rather than a single linear string. However, care was needed as unscrupulous traders would use only as few as 83 coins instead of 100.

As with many other Qin reforms the following Han dynasty revised rather than replaced the currency. A much lighter coin, the *wu zhu* was introduced in 118BCE, retaining the same shape with a standard weight [a *Zhu* is a standard weight]. The value was fixed so that 1 *jin* of gold coins was equal to 10,000 bronze *wu zhu* coins.

However, during the Han dynasty the weight of the *ban liang* coins diminished to in some cases 1/30th of the weight they should have been and a variety of forms were produced. Emperor Liu Heng (Wendi) in 175BC relieved a shortage of coins by licensing private mints, bringing great wealth to owners of copper mines, who then flooded the market which inevitably led to a devaluation of the currency. Emperor Wudi (187-180BC) reintroduced the state monopoly and licenses for minting coins, but much illegal coinage was still produced.

As a desperate measure Wudi introduced money made from pieces of skin from rare white stags so he had the monopoly of its supply. This novelty soon failed so he then introduced silver alloyed with tin as 'white coins'. The circulation of illicit coins was eventually solved by restoring parity of value for their weight in copper.

Ancient Chinese coins. Image provided by David Hartill ↗

Wang Mang (9-23AD) introduced standard exchange rates between cowrie shells, bolts of cloth and other currencies. He insisted all gold was exchanged for copper. He amassed more gold than was at that time in the whole of Europe and this was one reason that Emperor Tiberius ↗ forbade the purchase of silk with gold. However his tight control over money supply restricted economic activity. He introduced many new types and values of coins including some fine, high value coinage in the shape of knives inlaid with gold. When the Eastern Han dynasty ousted Wang Mang the range of coinage was simplified and the *wuzhu* was re-established as the chief coinage.

In the following Period of Disunity small kingdoms and short lived dynasties created their own coinage. At the time of the Sui second unification of China, Emperor Wendi reintroduced a standard Wuzhu coin - the Sui Wuzhu Wudi minted the *kai yuan tong bao* which was no longer of standard weight, they were also known as *tong bao* *zhong bao* 重宝 or *yuan bao*. So, the 700 years of Wuzhu coins came to an end, where the value of the coin was simply value of the metal it was made from. The new coins were in use for 200 years and used in Japan, Korea and Vietnam. By 850AD (Tang dynasty) eight copper mines provided all the copper for coinage. A hundred mints busily produced 327,000 strings of 1,000 cash coins each year. Each string weighed 6.4 pounds and was roughly equivalent in value to a *liang* (an ounce) of silver or a bolt of silk or a bushel of grain. Coinage began to generally replace the 'bolt of silk' as a unit of currency.

After more chaos in the Five Dynasties period, the Song dynasty introduced a great many variations of the *tong bao* coinage. By the year 997AD 800 million coins were produced each year: 2.5 times that made during the Tang. By 1085AD this had grown dramatically to 8 billion coins. The following Mongol dynasty used mainly paper currency and some silver; but ordinary people continued to use *tong bao* coins; some of which were in brass rather than bronze. When the Ming dynasty took over in 1368, the rulers moved back to greater reliance on coinage and established controlled mints producing bronze coins in five denominations (1;2;3;5 and 10). In 1375AD the weight and composition (100% copper) were stipulated. For larger denominations the Ming used silver rather than paper currency. Reforms during the early Qing dynasty standardized 1,000 cash coins to be worth the same as one tael (liang) of silver.

The currency system broke down towards the end of the Qing, one important reason was that the Taiping Rebellion blocked off the supply of copper from American mines that was imported in the south. The Taipings minted their own coinage during the Rebellion. At the same time the modern European minting machines replaced traditional casting in coin manufacture. The Republic of China finally ceased producing the standard round design with a square hole in favour of a plain disk.

Silver money

The Chinese silver ingot was in the form of a boat or shoe and known abroad as or 'sycee ➚' or in northern China as yuánbǎo. Very few were produced compared to coins and they were cast by hand. Gold and silver were normally traded by weight and not minted as coinage, they were reserved for making jewelry and ornaments. Use of silver increased during the Song dynasty; by 1120AD a total tax of 18 million ounces of silver was collected. In the Ming dynasty an increased supply of silver reached China from Mexico and South America through trade with the Spaniards, and the Spanish Peso ➚ was accepted as currency in ports engaged in foreign trade. Later on the emancipation of silver miners in South America led to shortage of supply of silver in the later Qing dynasty, this was one reason why opium became a trading commodity.

Paper money came into use in the Tang dynasty as a larger denomination of currency to replace the bulky 'bolt of silk' and heavy 'strings of cash'. Originally paper money was really just an official printed receipt and it was called 'Flying money'. It was far more convenient and safer to transport compared to the alternatives for large transactions. The money was printed in color on special paper (up to six colors by 1107AD) and was given a limited life: it had to be replaced or exchanged within three years. It was initially mistrusted when it was brought in by Wang Anshi. By the end of the Song dynasty paper money equivalent to 70 million strings of cash were being printed and became preferred to coins; the rulers imposed tight control over the supply of paper money so it could be trusted by the people. The Yuan dynasty tried to maintain the paper currency but inflation proved ruinous. Marco Polo was so impressed that a whole chapter of his great book was devoted to describing the paper money system. In the late Qing period there were many independent banks that all printed their own notes.

ROMAN COINAGE

The early Republic did not use coins but rather a system of bronze weights, the *aes rude*. These units were quite large as one unit was the equivalent of 324 g. or 11 1/2 oz. in weight. Despite their heaviness, this type continued to be produced up to c. 218 BC. As the Romans expanded over central Italy war booty meant coins could be produced using precious metals - gold, silver, and bronze. The first Roman coins were probably the small bronze ones of low value produced at Neapolis from 326 BC and carried the legend ΡΩΜΑΙΩΝ. The first silver coins were produced from the early 3rd century BCE and resembled contemporary Greek coins. These were worth two Greek drachmas and carried the legend ROMANO, later to become ROMA. Gradually, following the financial excesses of the Punic Wars, the weight of coins was reduced, as was the metal content of the bronze bars. Due to financial necessity, gold coins (aurei) were also minted, a rare event not to be repeated until the 1st century BCE.

In c. 211 BC a whole new coinage system was introduced. Appearing for the first time was the silver denarius (pl. denarii), a coin that would be the principal silver coin of Rome until the 3rd century AD. The denarius was equal to 10 bronze *asses* (sing. *as*), each of which weighed 54 g. or 2 oz. There were other coins such as the silver victoriatus which was in weight equal to three quarters of a denarius, the quinarii, worth half of a denarius, and other bronze and gold coins but these were not always widely or consistently used. From c. 200 BC only Rome now produced coins in Italy and the movement of troops ensured the wider circulation of Roman coinage.

As Rome expanded and took ever more treasure from her enemies silver began to replace bronze as the most important material for coinage. This was especially so following the acquisition of the silver mines of Macedonia from 167 BC, resulting in a huge boom in silver coins from 157 BC. In addition, in c. 141 BC the bronze *as* was devalued so that now 16 were equivalent to one denarius. It was now no longer necessary to mark coins as Roman as there were no others in Italy and by the 1st century BC Roman coins were now also being widely used across the Mediterranean.

In 84 BC once again the link between warfare and coinage was evidenced when Sulla minted new silver and gold coins to pay his armies, a necessity repeated by Julius Caesar, who in 46 BC, minted the largest quantity of gold coin yet seen in Rome, outproducing the state mint in the process. Following the death of Caesar coinage was produced by the various parties fighting to succeed him but with Octavian's victory a uniform Roman coinage was once more established. © Mark Cartwright

New coins continued to be minted and, following Julius Caesar's example these now showed the head of the ruling emperor and in most cases are the only physical likenesses of an emperor.

Coins were largely struck in Rome but a significant exception was the Lugdunum mint which started production (mostly gold and silver coins) in 16 BC and dominated until the mid 1st century AD.

Coins did not always represent their true worth and this debasing of the coinage was even organised by some of the emperors themselves namely, Nero, Commodus, Septimius Severus and Caracalla. There was a specific body of professionals (*nummularii*) who had the task of testing suspect coinage but they were overwhelmed by the flood of fake coins. The situation became even graver following the barbarian invasions of the 3rd century AD and the resulting financial pressure on the empire led to the collapse of the silver currency so that only the gold coinage and goods in kind kept the economy afloat. © Mark Cartwright