A Short Stylized History of the Evolution of Money,
Banking, Monetary Standards and the Payment Systems

The first known media of exchange were objects such as cattle (both *pecuniary* and *fee* are related to the word cattle), nails and even boulders (on the island of Yap). Later copper, silver, and gold metals were used as media of exchange. Metal coinage stamped with the weight and purity of the metal made exchange much easier. Because there was demand for coin as a medium of exchange, the right to mint coins soon became the monopoly of the sovereign who would charge a *seigniorage* fee for minting gold into coin. Coins are said to be of *full value* if the *face value* of the coin is equal to its metal value. There were many attempts to tamper with the coinage. *Clipping* and *hallowing* coins was prevented by *milling* coins, but the problem of *sweating* coins remained. The sovereign also *debased* coinage by issuing coins with face value greater than the metal value.

Though stamped coinage made exchange easier, it was inconvenient for large purchases and was difficult to store safely. Because goldsmiths had secure safes, owners of large amounts of bullion came to store their metal with the goldsmiths for a small fee. In time the goldsmiths observed that depositors did not demand the identical coin initially left with them but only coin of equal value. In practice (if not law) the goldsmiths assumed ownership of the coin but issued certificates claims to the original owners enabling withdrawal of the coin on demand. The system was failsafe if goldsmith held sufficient amounts of coin to honour withdrawal claims on demand. Thus, *deposit taking* became distinct from *safekeeping*.

Soon merchants realized it was convenient to make payment by requesting a transfer of part ownership from their account to the creditors account rather than first converting their receipt into coin and then making payment. This is the beginning of *chequing* or *clearing.* The receiver of the cheque would then make the coin withdrawal. As chequing became common and trusted, a further convenience was the ability of the receiver of the cheque to *counter-sign* the cheque and thereby transfer ownership to a third party. This was convenient because the receiver could make purchases directly from the third party without having to withdraw coin. Cheques, the debts of the goldsmith, circulated as media of exchange. This cheque money is debt but debt backed by coin secured in vaults.

Counter-signing of cheques was awkward. Instead of issuing one certificate to cover the entire deposit, goldsmiths began to issue *bank notes* in small denominations of standard value. These notes were payable to the bearer and circulated as the medium of exchange. Here notes are as good as coin and this money is the debt of goldsmith fully backed by coin.

Goldsmiths became men of wealth who lent to customers at interest. When it became common for notes to circulate, goldsmiths began to make loans not in coin but in notes. Experimentation revealed that as long as all the notes were not redeemed for coin at the same time, the goldsmith could issue more notes than the amount of coin in the vault. This was the beginning of *fractional reserve banking.* This process of lending in notes creates money out of borrowers promises to pay! Now there are more notes than coin and so notes are not fully backed by coin. Still notes act as a medium of exchange. Thus, the act of lending by issuing notes creates money. This created money is sometimes referred as *inside money* because it is created within the financial system.

Further experimentation revealed what fraction of coins against loans was prudent to meet demand for coins. However, history is replete with incidents where a confidence crisis precipitated a *run on the bank.* As the banker only had a enough coin to service a fraction of the notes, not all note holders could be satisfied in a bank run and the banker had to declare bankruptcy (even if they held good loans sufficient to pay off liabilities given time).

Soon banking operations were not limited to goldsmiths. Since note issue was a lucrative business, governments sought to monopolize it by granting exclusive charters to particular companies. The first *charter banks* were the Bank of Sweden (1656) and Bank of England (1697). In return for the charter these banks were often pressed to accept old government note issue and buy government bonds. The combination of charter bank note issue and promotion of questionable ventures lead to famous booms and busts (e.g. the Mississippi Company collapse and the South Sea Bubble).

Monetary standards describe the basis for monetary operations. Standards can be generally broken into two categories. A *commodity money standard* is when a physical item is the monetary unit; whereas, a *fiat-money standard* (or *paper money standard*) is when paper notes are the monetary unit.

The *payment system* describes how the circulating media (receipts, cheques, paper currency or credit allowances) are redeemed into standard money. Under a commodity standard the circulating media are redeemable into the commodity. A *bimetallic standard* is one in which circulating media can be redeemed in either gold or silver coin. Almost all modern economies use a fiat-money standard in which the circulating media are redeemable into paper money (*legal tender*) which is not backed by any commodity. The stock of standard money is called *outside* money because it is money not created within the financial system. Fiat money is outside money because it is created by government.

Why do different media of exchange exist in modern economies? Generally, cash is used in smaller transactions where it is not worthwhile for the seller to verify the creditworthiness of the buyer. Cash also offers anonymity. Chequing is used for larger transactions and avoids carrying cash. Unused balances in chequing bank accounts also earn interest. Credit cards provide convenience and borrowing allowances. Debit cards allow sellers to instantly debit the purchasers bank account. Often the bank account has access to a line of credit. We appear to be moving to a situation where debit cards may eliminate other means of payment.

What is money in a modern economy? Gurley and Shaw (Money in a Theory of Finance, 1960) argued that money is something that is *liquid* i.e. can be quickly converted into standard money without considerable loss of purchasing power. Currency is perfectly liquid. Demand deposit slightly less so. Notice deposits are not legally payable for a specified period of time. Unlike standard money, inside money is intermediated by the financial system. When the financial system is working well, some inside monies are highly liquid maybe even more so than cash. However, when the financial system is in crisis the liquidity and value of inside money is at risk.