**MONEY AND BANKING**

**Definition of Money**

Money can be defined as anything which is widely accepted in payment for goods and services or in the discharge of other business obligation

The earliest form of exchange was done using the barter system which is the exchange of goods for other goods. Various problems however were faced by people in the barter economy, in other words, in a purely barter system, there was no generally acceptable medium of exchange in the form of a particular good or asset which could be used to buy goods and services and carry out other forms of transactions. Some of the problems of the barter system were

1. Double coincidence of wants;
2. Lack of a standard unit of Account
3. Impossibility of division of goods
4. Lack of information
5. Production of very large and costly goods was not feasible

**Evolution of money**

**Commodity Money:** many years ago, various commodities were selected as a medium of exchange and thus came to be used as money. Sea shells, beads, furs, cowrie’s shells, skins etc were adopted as money at different times in the early stages of development. With further development in the pastoral stage, animals such as cows, goats, and sheep started being used as money. The use of animals as money suffered some disadvantages, first is that they all were not identical and so could not serve as a standard unit of measurement, secondly, the supply of these animals was subject to large and abrupt fluctuations, thirdly, animals cannot serve as a satisfactory store of value

**Metallic Money:** with view of the above limitations of using animals as money, and with further progress in human civilization, animals and ordinary commodities were replaced by precious metals such as gold and silver as money. The advantage of using such metals as money is that they are easily handled and stored, they do not deteriorate, they have just the right degree of scarcity and they can be relied upon neither to increase nor decrease in quantity except gradually. With the evolution of coins, it’s the gold and silver coins that came to be used rather than simple bits and pieces of gold and silver whose value could not easily be determined. It’s important to note that precious metals were used as money not because they were valuable but because they were scarce. For a thing to serve as money scarcity is more important than value- these days it is the scarcity if paper money that is responsible for its efficiency as money

**Paper money:** as it came to be realized that for sound money, scarcity is more important than value, precious metals were replaced by paper money. Paper money took the form of bank notes

**Bank deposits as money:** in the developed countries the main type of money is not paper notes issued by the central bank but the bank deposits which people hold with the commercial banks and against which cheques can be drawn or credit and debit cards used. They serve as money because through drawing cheques on them, they can be used to make payments for good and services

# Types of Money

* **Coins:** These are metallic monies. They are less than full-bodied because their intrinsic (metallic) value is less than their face value.
* **Currency notes:** these are merely pieces of paper that have no intrinsic value of their own.
* **Deposit money:** These are not like coins or currency notice. Deposit money is treated as demand deposits of commercial banks on which cheques can be drawn as money.
* **Emoney:** with the technological advancements, e-money transactions have evolved in the money market. Some financial institutions, offer an [email money transfer](https://www.investopedia.com/terms/e/email-money-transfer.asp) service. This form of money transfer functions like an [electronic check](https://www.investopedia.com/terms/e/electroniccheck.asp). The funds are not physically transferred by email, though the transaction is initiated by email, and the recipient is notified by email that the funds are available. You don't need the recipient's bank account number, though a security question is generally required to identify the recipient before they can retrieve the funds.

Coins and currency notice are legal tender, they serve as money on the order of government i.e., under the law of the land, and the money in question must be accepted in settlement of all kinds. This is not true of demand deposits of payment because a payee can legally refuse to accept payment made through a cheque and insist on payment in cash. This is because there is no guarantee that the cheque will be accepted at issuer’s bank.

**Measures of money supply**

Broadly money is characterized into three; i.e., Base money, narrow money and Broad money

* Base money M0 = RR + CC

RR means money in the form of commercial bank deposits held in the central bank's reserves.

CC means currency in general circulation in the hands of the public.

Also known as M0, the monetary base of an economy includes all of the physical paper and coin currency in circulation, plus bank reserves held by the central bank. The monetary base is a component of a nation’s money supply. It refers strictly to highly liquid funds including notes, coinage, and current bank deposits.

* Narrow money M1 = M0 + DD

Where CC = currency in circulation

DD = Demand deposits held by commercial banks

M1 is a narrow measure of the money supply that also includes physical currency and reserves, but also counts demand deposits, traveler’s checks, and other checkable deposits. This category of money is considered to be the most readily available for transactions and commerce. The narrow money supply only contains the most liquid financial assets. These funds must be accessible on-demand, which limits the category to physical notes and coins and funds held in the most accessible deposit accounts.

* Broad money M2 = M1 + TD + SD

Broad money is a category for measuring the amount of money circulating in an economy. It is defined as the most inclusive method of calculating a given country's money supply, and includes narrow money along with other assets that can be easily converted into cash to buy goods and services.

Where M1 is narrow money

SD = Savings

TD = Time deposits

M2 is a calculation of the money supply that includes all elements of M1 as well as "near money," which refers to savings deposits, money market securities, mutual funds, and other time deposits.

* Broad money is the most flexible method for measuring an economy's money supply, accounting for cash and other assets easily converted into currency.
* The formula for calculating money supply varies from country to country, so the term broad money is always defined to avoid misinterpretation.
* Central banks tend to keep tabs on broad money growth to help forecast inflation.

In the case of developed economies, money is defined as M3 = M2 + FD, where FD = Foreign Deposits.

M3 is a measure of the money supply that includes M2 as well as large time deposits, institutional money market funds, short-term repurchase agreements and larger liquid assets.

* M2 and M3 are important because they can easily be changed into M1 types of money and influence people's spending of income.
* The ease of shifting between M1, M2, and M3 complicates the task of controlling spendable money supply.
* The definition becomes important when authorities attempt to measure control and the money supply.

 Credit cards are not money, but their use involves short-term loans; their convenience allows you to keep M1 balances low because you need less for daily purchases.

**Money supply**

This is the sum of currency (coins and paper money) held by the public and deposits at banks. The money supply is all the currency and other liquid instruments in a country's economy on the date measured. The money supply roughly includes both cash and deposits that can be used almost as easily as cash. A number of factors affect money supply in an economy. These are:

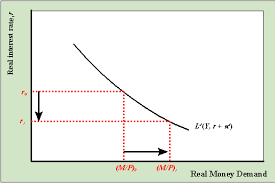
* Printing of more money by the central bank leads to an increase in money supply.
* Government borrowing from the central bank
* Balance of payments position. A BOP surplus increases money supply while a deficit in BOP reduces money in circulation.
* Foreign capital flows. Inflows increase money supply and the vice-versa.
* Government financing a budget deficit increases money supply. It usually borrows from abroad or instructs the central bank to print more money.
* Credit creation by commercial banks leads to increased money supply.
* Export earnings from abroad.

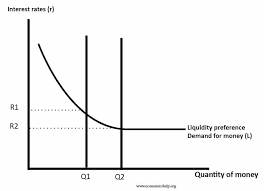
Note: The central bank is responsible for measuring the nation’s money supply. For example, Bank of Uganda (BOU) is Uganda’s central bank and it plays this role. BOU releases the monetary aggregate estimates every month. Therefore, money supply is independent of the interest rate.

An increase in the supply of money typically lowers interest rates, which in turn, generates more investment and puts more money in the hands of consumers, thereby stimulating spending. Businesses respond by ordering more raw materials and increasing production. The increased business activity raises the demand for labor. The opposite can occur if the money supply falls or when its growth rate declines. Change in the money supply has long been considered to be a key factor in driving macroeconomic performance and business cycles.

# Demand for money

The demand for money refers to how much assets individuals wish to hold in the for of money. It is referred to as liquidity preference. The demand for money is affected by several factors, including the level of income, interest rates, and inflation as well as uncertainty about the future. The way in which these factors affect money demand is usually explained in terms of the three motives for demanding money: the transactions, the precautionary, and the speculative motives. The demand curve for money is downward sloping which means that people want to hold less of the money, the higher the interest rates on bonds and other investment projects.





**The Quantity Theory of Money**

According to this theory, people hold money to buy goods and services. The more money they need for such transactions the more money they hold. In this case, the quantity of money in the economy is closely related to the number of shillings in exchange transactions. The quantity theory of money says that a change in the quantity of money leads to an equal proportional change in the level of prices. The link between transactions and money is expressed in the quantity equation: MV = PT Where: M = Money stock i.e., the amount of money in circulation V = Velocity of money i.e., the speed at which money change hands P = Price level prevailing in an economy T = Level of transaction in a given time period. Advanced by Irving Fisher, the quantity theory of money assumes M and P to be variables while V and T are assumed to be constants. As a result: M = PT/V

Fisher estimated that M = P when V and T are held constant.

**Criticisms of the Theory**

This theory was criticized by modern economists led by A.C Pigon.

* They believe that money demand is a function of wealth i.e., the more one becomes wealthier the more he/she demands for money. This fact was ignored by the quantity theory.
* The theory ignores the effect of interest rates on money demand. Money demand is a function of interest rate and the rate of time preference. When the interest rate is high people are compelled to keep money in bank and thus there will be low demand for money while when the rate of interest is low money will be highly demanded.
* The theory assumes the velocity of circulation of money to be constant, when in fact it is not. The velocity of circulation of money fluctuates quite a lot.

**Keynesian Theory of Money Demand**

This theory is at times referred to as the Liquidity Preference Theory. It was advanced by John Keynes who identified three motives of keeping money in liquid (cash) form. These include;

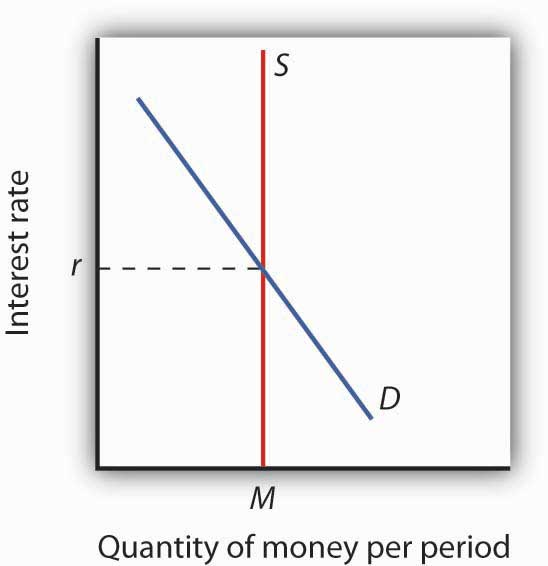
* The Transactions Motive; Money under this motive is demanded for day-to-day transactions e.g., transport costs, food requirements, purchase and sale of goods and services etc. This motive is divided into income motive (for households) and business motive (for firms).
* The Precautionary Motive: Under this motive, money is demanded to provide security against future uncertainties e.g., sickness, accidents. To the side of business firms; they may need cash unexpectedly to finance certain increases in the price of certain inputs they use. The money needed for precautionary motive is also a function of one’s income.
* Speculative Motive; Under this motive, people demand money to make profit for holding money. This motive depends on interest rate prevailing in the economy at a time (diagram showing liquidity trap to be drawn in class). The speculative demand for money consists of an inverse relationship between money holdings and interest rates. If market interest rates are relatively high, the demand for money will be low, and if market interest rates are relatively low, the demand for money will be high.

Note: From the three motives above, we can conclude that there are two factors that affect the demand for money. These are:

* The level of income or GDP: positive relationship
* The market interest rate: negative relationship

**Equilibrium in money market**

The money market is the interaction among institutions through which money is supplied to individuals, firms, and other institutions that demand money. Money market equilibrium occurs at the interest rate at which the quantity of money demanded equals the quantity of money supplied. All other things unchanged, a shift in money demand or supply will lead to a change in the equilibrium interest rate and therefore to changes in the level of real GDP and the price level.



**Liquidity trap**

This is a situation in which the interest rates are low but savings are very high rendering the monetary policy ineffective. It is a situation in which injections of cash by the central bank in private banking doesn’t reduce the interest rate. Since an increase in money supply means more money is in the economy, it is reasonable that some of that money should flow toward the higher-yield assets like bonds. But in a liquidity trap it doesn't, it just gets stashed away in cash accounts as savings. Consumers choose to avoid bonds and keep their funds in savings because of the prevailing belief that interest rates will soon rise which would bond prices up. People hoard money in expectation of adverse events such as deflation, reduction in AD, wars etc.

**Summary**

* A liquidity trap is when monetary policy becomes ineffective due to very low interest rates combined with consumers who prefer to save rather than invest in higher-yielding bonds or other investments.
* While a liquidity trap is a function of economic conditions, it is also psychological since consumers are making a choice to hoard cash instead of choosing higher-paying investments because of a negative economic view.
* A liquidity trap isn't limited to bonds. It also affects other areas of the economy, as consumers are spending less on products which means businesses are less likely to hire.
* Some ways to get out of a liquidity trap include raising interest rates, hoping the situation will regulate itself as prices fall to attractive levels, or increased government spending.
* A notable issue of a liquidity trap involves financial institutions having problems finding qualified borrowers. This is compounded by the fact that, with interest rates approaching zero, there is little room for additional incentive to attract well-qualified candidates. This lack of borrowers often shows up in other areas as well, where consumers typically borrow money, such as for the purchase of cars or homes.
* Low interest rates alone do not define a liquidity trap. For the situation to qualify, there has to be a lack of bondholders wishing to keep their bonds and a limited supply of investors looking to purchase them. Instead, the investors are prioritizing strict cash savings over bond purchasing. If investors are still interested in holding or purchasing bonds at times when interest rates are low, even approaching zero percent, the situation does not qualify as a liquidity trap.

# Qualities of Good Money

* **Acceptability;** money must be acceptable by everyone. I.e., People should have confidence in it.
* **Durability;** money must be long lasting. This implies therefore that perishable items are vulnerable to deterioration in physical quality and value; they cannot as such serve as money.
* **Divisibility;** money should be divisible into smaller denominations or units in order to enable the payment of smaller debts.
* **Portability;** money should be easily carried (portable) or transferable from one place to another.
* **Homogeneity;** money should be similar in looking and nature in order to enable it to be easily recognized. Change of materials out of which money is made can encourage forgery for money.
* **Scarcity;** items used, as money must be generally scarce and difficult to obtain. This will make money retain its value and services as a store of wealth.

**Functions of Money**

There are four major functions of money

1. A medium of exchange.
2. A measure of value
3. A standard of deferred payment
4. A store of value

**BANKING**

A bank is a financial institution that accepts deposits from the public and creates credit. Lending activities can be performed either directly or indirectly through capital markets. Financial sector in Uganda is composed of formal, semi-formal and informal institutions. These are also composed of banking financial institutions and non-bank financial institutions. Banking financial institutions in the formal sector includes commercial banks, credit institutions and Microfinance institutions, ranked as follows.

* Tier1 – Commercial banks.
* Tier 2- Credit Institutions
* Tier 3 – Microfinance deposit taking institutions (MFDTI)
* Tier 4 – other microfinance institutions

Semi formal includes the SACCOs

Informal include village banks and money lenders

Non-bank financial institutions include;

* Insurance companies
* Forex bureaus
* Development banks
* Money remitters
* Pension scheme companies
* Capital markets

Note that the financial system in Uganda is still quite low as about 65% of Uganda population doesn’t access banking services.

**The Central Bank**

The central bank is the monetary authority of a country and aims at promoting economic stability and development; it enjoys special status in the banking structure of the economy. It is an institution that manages the country`s currency, money supply and interest rates. It usually oversees the commercial banking system of their respective countries. The central bank possesses the monopoly of increasing or reducing the monetary base in the country. Theoretically, when the central bank lowers the Benchmark rate (CBR), the commercial banks should drop their lending rate to the public. The principles on which it is run differ from ordinary banking principles. As ordinary banks are run for profits, a central bank is primarily meant to promote financial and economic stability in the country. The guiding principle of a central bank is that it should act only in the public interest and for the welfare of the country without regard to profit as a primary consideration. Earning profit for s central bank is thus a secondary consideration

**Functions of Central Banks**

* Issuing currency
* Acts as a banker to the country
* It acts as a banker to other banks
* It is a lender of last resort
* It regulates the interest rate
* It controls credit
* Custodian of cash reserves
* Custodian of international currency
* Clearing house for transfers and settlements
* Protecting the depositors’ interest

The demand for money, supply of money and interest rate of money is manipulated by the central bank to see that its objectives are achieved. To do this, it uses the Monetary and fiscal policies

**Tools of the Monetary Policy**

1. **Bank rate**: this is the minimum interest rate at which the central bank provides loans to commercial banks. Through changes in the bank rate, the central bank can influence the creation of credit by commercial banks through altering the cost of credit and thus the demand for credit by the public

The extent to which this policy is effective largely depends on;

* The degree of dependency of commercial banks on borrowed funds. The policy may therefore fail if commercial banks are in possession of excess reserves.
* How much commercial banks can borrow from other sources? The policy therefore maybe ineffective if commercial banks have alternative sources to borrow from.
* The profitability in the market i.e., if firms expect high profitability, then regardless of the borrowing rate, borrowing shall continue.

1. **Open Market Operations OMO**: this refers to the purchase and sale of government securities (treasury bills and bonds) by the central bank to the public. Selling securities to the market is contractionary i.e., reduces the aggregate demand. When the central bank buys securities from the market, the policy is expansionary. This increases money supply in the market and therefore aggregate demand.
2. **Legal Reserve Ratio Requirement.**

This is money commercial banks are supposed to deposit with the central bank. A reduction in the reserve ratio will lead to an increase in the number of deposits held by the bank while an increase will decrease the available money to borrowers

1. **Cash ratio/ minimum reserve requirement**

Commercial banks have two functions to perform;

* Accept deposits from the public
* Lend these deposits

By law, banks have to keep a certain amount of cash with themselves as reserves against the deposits. E.g., if the cash ratio is 20%, if a bank has 20B in deposits, it will have to keep 4B as reserves. The central bank has the authority to vary the cash ratio depending on what it wants to achieve, e.g., lower the cash ratio to increase money available to borrowers and vice versa

1. **Selective credit control**

The policy dwells on the selection of those sectors in the economy that are responsible for economic instability or those that need assistance economically, it undertakes directives given by the central bank on to commercial banks to extend or not to extend or if they must, it should be on a discriminatory basis with regard to priority sectors (productive sectors) and unproductive sectors. Discriminatory credit extension is also called credit rationing.

1. **Moral suasion**; it is where the central bank advises the commercial banks either to lend or not depending on the economic situation to achieve the set target.

**Commercial Banks**

A commercial bank is a financial institution that are licensed by central banks to provide services to the public such as accepting deposits, making business loans and offering basic investment products. In exchange for their money, commercial banks offer their customers interest on their deposits. The way the commercial banks make money is by using their customers deposits for loans with interest rates above the rates they pay to depositors. The spread between what banks pay out in interest and what it takes in as interest on loans form the bank`s net interest income. In their service provision, commercial banks ensure the economic and social stability and general sustainability of economic growth in the country. Therefore, commercial banks make profits through lending customer deposit at an interest.

**Functions of Commercial Banks**

* They accept and provide custody of deposits from customers
* Advances loans and overdrafts to customers. These loans can be short term, medium term or sometimes-long term. It is out of these loans that commercial banks create credit.
* Facilitates easy and quick means of settling obligations by use of cheques, standing orders, bank drafts etc.
* Offer bank overdraft. An overdraft occurs when an account lacks the funds to cover a withdrawal, but the bank allows the transaction to go through anyway. This allows the customer to continue paying bills even when there is insufficient money
* All commercial banks perform the important functions of creating credit.
* Provides custody for customers valuable possessions
* They provide employment opportunities.
* Agency function. They function on behalf of their customers
* They issue travelers cheques and letters of credit
* Dealing in exchange rate market
* Banks invest their surplus fund in government securities
* Discounting bills of exchange. The banks transfer loans to traders and business community by discounting their bills, which is a short-term. Discounting of a bill of exchange is a method of short-term financing provided by banks. The bank purchases a trade bill from the payee before the maturity date and pays the bill amount after deducting service charges from it. At the maturity of the bill, the bank recovers the said money from the drawee.

**Credit Creation**

The process of credit creation is considered one of the most important functions performed by a commercial bank.

 The central bank of a country is responsible for ensuring the supply of money in the economy by circulating the currency. It also ensures that for fulfilling all the transactions, there should be appropriate currency in the system. This process cannot be implemented by the central bank alone. For this, they require the help of commercial banks and their reserves. Commercial banks perform the function of credit creation in an economy. Therefore, the money that is created by commercial banks is known as credit money. This is achieved by the commercial banks in the form of purchasing securities and providing loans. The commercial banks facilitate the loans by utilizing the deposits that are obtained from the public. There are restrictions on the amount of money that can provide credits from the total deposits that a bank obtains from the public. As per the rule, the commercial banks need to maintain a certain portion of the public deposits as reserves with the central bank that will be used for meeting the immediate cash requirements of the depositors. Only after keeping aside the required amount of those reserves the commercial banks are permitted to lend those amounts to individuals or businesses

**Assumptions:**

* Balance sheet of commercial banks.
* Initial deposit of 1000/=
* Commercial banks are subjected to cash reserve requirements (cr) = 20%
* All transactions take place in banks.
* There is no hoarding of money by the non-bank public i.e., no leakages from the banking system.

**B/S BANK A**

**Assets** **Liabilities**

Cash Reserves = 200 DD = 1000

Excess reserves = 800

(Loan)

**1000**

**1000**

Bank A retains 800/= in excess reserves. But because commercial banks exist to make profits, the excess reserves must be lent out.

# To who?

* To non-bank public
* To the government etc.

**B/S BANK B**

**Assets** **Liabilities**

Cash Reserves = 160 DD = 800

Excess reserves = 640

(Loan)

**800**

**800**

**B/S BANK C**

**Assets** **Liabilities**

Cash Reserves = 128 DD = 640

Excess reserves = 512

(Loan)

640 640

How is credit created at the end of the process is determined as follows;

ID = cr FD

Where ID = Initial Deposit

FD = Final Deposit

FD = ID

cr

FD = 1000

0.2

FD = 5000

Actual credit created = 5000 – 1000 = 4000/=

**NB:** Credit multiplier is the number of times the initial deposit multiplies itself to give the final deposit.

**Conditions Essential for Credit Creation**

The following conditions are essential for credit creation in an economy.

* Willingness of public depositing money into the commercial banks
* Willingness of commercial banks to lend money to individuals or businesses in the form of credit
* Willingness of individuals or businesses in seeking money from the commercial banks in the form of credit

**Factors limiting credit creation in Uganda.**

* The reserve ratio requirement; if it is high, limit it.
* Unstable political climate discourages investors; hence low demand for loans from commercial banks.
* Many banks in the economy therefore share the customers
* Most people are poor hence low level of savings with banks.
* Low interest rates offered on customers’ deposits
* Most people lack information on commercial banks services
* Large subsistence sector, which is not magnetized hence exchange is still affected through barter trade limiting demand for money.
* Adequate securities. If proper securities are not available with the public, a bank cannot create credit.
* The credit creation power of banks depends upon the amount of cash they possess. The larger the cash, the larger the amount of credit that can be created by banks.
* The banking habits of the people also govern the power of credit creation on the part of banks. If people are not in the habit of using cheques, the grant of loans will lead to the withdrawal of cash from the credit creation stream of the banking system.
* Leakages. If there are leakages in the credit creation stream of the banking system, credit expansion will not reach the required level, given the legal reserve ratio. It is possible that some persons who receive cheques do not deposit them in their bank accounts, but withdraw the money in cash for spending or for hoarding at home