Money & Banking

Functions of Money

- **Medium of exchange**
  - Money allows people to buy goods and services/ allows exchange between buyers and sellers. Allows the buying and selling of goods/services to be broken into two distinct activities.
- **Measure of Value**
  - Money enables a price to be put on goods & services.
- **Store of Wealth**
  - Allows people to save for the future/can be used to make purchases in the future.
- **Standard for Deferred Payment**
  - Money is capable of measuring value for a future date. Money makes credit trading (i.e. buying & selling) possible.

Characteristics of Good Money Form

- **Acceptable** - everyone must accept it as genuine and have confidence in its ability to purchase goods and services.
- **Durable** – it should last a long time.
- **Portable** - easy to carry around.
- **Scarce** - scarce enough to be valuable, not common such as sand or pebbles on a beach. If money is too plentiful, it would quickly lose its value. This is one of the reasons why a government cannot solve the financial problems of a country simply by printing more money.
- **Divisible** - can be divided into small units so that the purchase of large and small units is facilitated.
- **Fungible** - can be freely exchanged. There is no difference between one euro and another euro.

Forms of Money

In time gone by, money was worth its weight in gold. Gold and silver coins were worth their **intrinsic value, i.e. their real value**. Modern money can be described **as token money.**
A €1 coin is worth 100 cent. This is its **face value**. Its intrinsic value if you attempted to melt it down and sell the metal, it would be worth a fraction of this.

Token money refers to money that has a face value that is greater than its intrinsic value.

The "**term legal tender"** means the currency that is the official currency and must be accepted as payment by suppliers of goods/services and by creditors. Cheques are not legal tender but can be converted into legal tender.

The Money Supply

The supply of money is divided into three categories.

- **M1**: The narrow money supply is the notes and coins in circulation plus all the balances in current accounts in all licensed banks in the state.
- **M2**: This is M1 plus deposits with an agreed maturity date of up to two years and deposits redeemable at notice up to three months and post office savings.
- **M3**: This is M2 plus repurchase agreements, money market securities and debt

1. Repurchase agreements are financial instruments used in the money markets. The full name for them is Sale and Repurchase Agreements and under the agreements one person sells securities to another for cash and agrees to repurchase the security from the cash provider for a greater sum of cash at some later date.

2. Debt securities cover bonds, debentures and notes that usually give the holder the unconditional right to a fixed money income or contractually determined variable money income. They include bonds such as treasury bonds, equity related bonds and Euro related bonds.

3. Money market funds are securities that can be purchased through most stockbrokers or directly from banks. They are mostly used by people who sell a stock and the put the proceeds in a money market fund account until they decide where they want to reinvest the money. The funds can also be used to build cash.

Irish Financial Institutions

- **Commercial Banks:** These are the four biggest banks (AIB, Bank of Ireland, Permanent TSB and Ulster bank). The main functions of these banks are deposit taking, and lending to personal customers and businesses. They also provide a range of other services, including foreign exchange, night safe facilities, traveller's cheques, credit cards and mortgages.
- **Merchant Banks:** In banking, a merchant bank is a financial institution primarily engaged in offering financial services and advice to corporations and to wealthy individuals. Goldman Sachs, Morgan Stanley, The Weston Group, maintain an active merchant banking presence.
- **Subprime lenders:** Subprime lending is the practice of granting loans to borrowers with a poor or no credit rating. Normal banking practice is to grant loans only to those borrowers who show ability to repay a loan. In recent times many financial institutions have sprung up who are willing to grant loans to people with a poor credit rating. These are known as sub-prime lenders. The term sub-prime, in this context, means 'below the best or ideal' and refers to the status of the borrower. The loans are given at a rate of interest well in excess of the normal interest rate charged by mainstream lenders. Homeowners who find themselves in financial difficulties turn to these lenders. The risk of defaulting on these loans is very high. Subprime lenders rely heavily on securitizing, or parceling up, their loans and selling them onto investors (frequently these are main stream banks) as a way of funding their operations. If there is a high default rate on repayment of the loans the mainstream banks could face a serious liquidity crisis. Many subprime lenders in the US have acted in an irresponsible manner and have granted loans to people with little or no collateral.

Hundreds of thousands of these have defaulted on the loans. These borrowers have become known as ninjas, i.e. 'no income, no job or assets'.

- **Building societies:** Initially Building Societies sole concern was acceptance of deposits from savers and the provision of finance for house purchase. They now operate current accounts, provide ATMs, give out loans for purposes other than house purchase and issue credit cards. EBS is an example of an Irish Building society.
- **Post office savings bank:** Entirely government owned, its deposits are lent to the government. It is purely a savings medium, where deposits are state guaranteed.
- **Credit Unions:** These are locally based organizations which take deposits and give loans. They are non-profit making co-operatives set up locally.

European Central Bank

Responsible for monetary policy in the Eurozone (Economic and Monetary Union). The Eurozone is made up of the countries that use the Euro as their currency.

Monetary Policy is policy related to money supply, interest rates and availability of credit.

Functions of the ECB

- **Maintain Price Stability**.
  - The key aim of the ECB is to maintain price stability and this it does by closely monitoring inflation in member countries and adjusting the base ECB interest rate so as to adjust spending.
- **Implements EUs monetary policy.**
  - Through its member Central Banks the ECB monitors and advises on: rates of interest, money supply, credit availability & protects the value of the euro. Main measures: Refinancing operations, Standing Facilities, Minimum Reserve Requirements.
- **Holds and manages the official reserves of the euro area countries.**
  - These are the EUs official holdings of gold, foreign currencies and other reserves held as security against the issue of the euro. The ECB manages these reserves on behalf of the countries.
- **Financial stability and supervision**
  - The member authorities must provide prudential supervision of credit institutions and ensure stability in the financial system.
- **Euro bank notes and coins**
  - The ECB has the exclusive right to authorise the issuance of banknotes within the euro area.

Tools of the ECB

- **Open Market Operations**
  - The Central Bank can sell or buy securities on the Stock Exchange. This will take cash out of the Banks thus reducing their ability to create credit. On the other hand the Central Bank can purchase securities for cash. This will put cash into the banks thus increasing their credit creating capacity.
- **Deposit facility**
  - The facility to make overnight deposits with the ECB which affects the rates of interest paid to depositors

- **Manipulation of the discount rate and the short-term facilitiy rate (STF):**
  - Effectively this is the rate of interest the central bank charges commercial banks when they borrow money from it. Any changes in the STF cause the banks to change their rates accordingly. If the STF was increased, then the banks would have to increase the rates they charge to customers causing a contraction in demand for loans.
- **Altering of the PLR (prime lending rate) by the Central Bank:**
  - This could mean that the banks would have to hold more cash for their customer's requirements thus reducing their credit creating capacity.

Irish Central Bank

Functions of the ICB

- **Monetary Policy**
  - The Central Bank of Ireland is responsible for maintaining price stability in Ireland through the implementation of ECB decisions on monetary policy. As a member of the ECB Governing Council, the Governor has direct input into monetary policy decisions and other major policy areas.
- **Holds and manages the official reserves of the euro area countries.**
  - The Central Bank holds Ireland's stock of gold, foreign currencies and other reserves which are held are security against the issue of the euro.
- **Government Bank**
  - All monies received by and paid out by the government go through its account with the central bank
- **Prints Legal Tender**
  - The central bank has the sole authority to print and mint euro currency in Ireland. It distributes euro through financial institutions in Ireland.
- **Banker's Bank**
  - The central bank can act as the lender of last resort to financial institutions if they are experiencing difficulty in raising finance themselves.
- **Financial Regulator**
  - The financial regulator is under the aegis of the Central Bank. It regulates the financial sector in Ireland including credit unions, building societies, IFSC operations, etc.
- **Financial Stability**
  - The key role of the central bank is to ensure the stability of the financial system in Ireland. Financial stability analysis involves researching the stability of the financial system as well as its relationship with the real economy.

Inter-Bank Market

This is the name given to the money market in which banks can borrow or lend among themselves for fixed periods. Banks which have surplus funds can lend to banks which have short-term liquidity problems. The lending can be for as short as

period as one day. The interbank market is a major source of day-to-day liquidity for the banking system.

Interest rates are the prices paid for money. The price increases or decreases as changes occur in the demand for and supply of money. A shortage of liquidity on the inter-bank market causes interest rates to rise. A surplus of liquidity on the inter-bank market causes interest rates to fall.

Interest Rates

- **Nominal Interest Rate**
  - This is the earnings from deposits/price paid for borrowed money that has NOT been adjusted for inflation.
- **Real Interest Rate**
  - This is the interest rate that has been adjusted for inflation

Suppose we buy put €100 in a deposit account pays 7%. At the end of the year we get €107. This 7% is the nominal interest rate, as we have not accounted for inflation.

Now suppose the inflation rate is 3% for that year. If we withdraw the €107 from the deposit account at the end of the year and buy a basket of goods for we will be paying €103 for a basket of goods that would have cost us €100 a year ago. We now have €4 left over. So after factoring in inflation the real interest rate is 4%.

- **Benefits of Falling Interest Rates**
  - **Borrowing encouraged**
    - Borrowing is now cheaper resulting in cheaper loan repayments which will increase spending power resulting in a higher standard of living.
  - **Savings discouraged**
    - With a lower rate of return people may find it less attractive to save and so they will increase their spending.
  - **Reduced mortgage repayments**
    - The cost of monthly repayments (on tracker mortgages) decreases resulting in increased disposable income and a higher standard of living.
  - **Cost of Servicing the National Debt**
    - With lower domestic interest rates the cost of repaying the internal portion of the national debt falls.
  - **Costs of Production / increased competitiveness**
    - Cost of production will decrease resulting in lower domestic prices. This will increase the competitiveness of Irish exports and may lead to an increase in sales.
  - **Incentive to Invest**
    - The MEC will rise resulting in increased profits and this may encourage investors. It becomes less expensive for businesses to borrow and so they may invest.
  - **Economic Growth encouraged**
    - With possibly increased investment / increased consumer spending future economic growth in Ireland may be encouraged.

- **Taxation revenues**
  - With a possible reduction in savings the government may receive less revenue through DIRT. However, with a possible increased spending the revenue from VAT and excise duties may rise. If unemployment decreases there will be an increase in income tax revenue.
- **Employment**
  - Increased consumer spending; rising demand for Irish exports; an increase in investment and an increase in economic growth may result in an increase in the numbers employed.

*the opposite of the above is true for rising interest rates.

Quantitative Easing

An unconventional monetary policy in which a central bank purchases financial instruments such as bonds from the market in order to lower interest rates and increase the money supply. Quantitative easing increases the money supply by flooding financial institutions with capital in an effort to promote increased lending and liquidity in economies.

- **Effects of Quantitative Easing on the Irish Economy**
  - **Increased bank lending**
    - With increased cash reserves the commercial banks may increase their lending.
  - **Economic growth / jobs**
    - Increased lending by banks should increase both consumer spending and investment spending which will boost aggregate demand and help create jobs.
  - **Possible inflation**
    - If the money supply increases at a faster rate than the supply of goods and services then inflation may increase.
  - **Interest rates**
    - An increase in the money supply, after the creation of new money which has been used to purchase financial assets, may lead to a reduction in interest rates which may restore business confidence and help stimulate economic activity.
  - **Government bonds**
    - If government bonds are purchased then this may cause their market price to rise leading to a decrease in their yield.

Why Commercial Banks and Financial Institutions need Regulation

- **Protect consumers**
  - Regulation will ensure that the interests of the banks' consumers are protected and that savers' deposits are secure.
- **Proper lending policies**
  - Regulation will ensure that the banks follow correct lending procedures and that excessive /reckless lending is avoided.
- **Banking system stability**
  - Regulation will ensure that the banking system should remain stable.

- **Economic stability / confidence**
  - Proper regulation may ensure that the banks operate efficiently resulting in public confidence in the banking system/ allow for the flow of credit and for economic growth of the economy.
- **Less need for government intervention**
  - If the banks are properly regulated then there will be less need for the government to become involved as it has had to do with the guarantees for savers deposits; nationalisation of Anglo Irish Bank; and the setting up of NAMA.
- **Less need for EU / IMF funds**
  - If banks are properly regulated it should result in the government not having to resort to funds from the EU/IMF to capitalise the banks.

NAMA

The National Asset Management Agency (NAMA) was established in 2009 as one of a number of initiatives taken by the Government to address the serious crisis in Irish banking which had become increasingly evident over the course of 2008 and early 2009.

The concept behind NAMA was to set up an agency to buy loans at a discount from AIB, BOI, Anglo Irish Bank, EBS and Irish Nationwide. In exchange the banks were given bonds which could be cashed in at the ECB to help raise capital. The process removes the loans from the banks' balance sheets. The thinking was the banks could return quicker to normal functioning if the loans were taken off their balance sheets. Developers who had taken out these loans must now deal with NAMA, as their principal creditor.

NAMA began its life with a very large balance sheet and has the task of managing that balance sheet down to zero as soon as it commercially practicable. It must recoup at a minimum all of the expenditure incurred by it on acquiring loans, on advancing working capital and on its own costs. In doing so, it will pursue all debts owed by its debtors to the greatest extent feasible.

- **Consequence of NAMA**
  - Banks were prevented from insolvency as NAMA allowed them to sell loans in exchange for capital
  - It prevented "fire sales" of property. If NAMA has not purchased the loans banks would have been forced to sell of the collateral securing the loans. This would have created a sever over supply of property which would have sent property prices plummeting.
  - The banks received capital which allowed them to return to their primary business of lending. The real economy needs a functioning credit market so that it can get loans when it needs in order for business to carry on.

How Banks Create Credit

The Primary Liquidity Ration/Reserve Ratio
The amount of a deposit that the Central Bank requires commercial banks to keep in cash form.

Example:

Alternative A

1. Commercial banks accept cash deposits from their customers e.g. say €100, for safekeeping. **4 marks**
2. These banks know from experience that their customers will only demand back a small amount of these deposits in cash - say 10% because of their use of cheques as an acceptable method of payment. **4 marks**
3. So they now have surplus cash with which to give loans - €90. **4 marks**
4. The amount of loans they give is related to, but in excess of their cash deposits and is based on their reserve ratio

4 marks

Formula for Calculating Increase in Credit:

$$\text{Cash Deposit} \times \frac{1}{\text{Bank's Reserve Ratio (PLR)}} \text{ less Original Cash Deposit}$$

Numerical example: **4 marks**

A person deposits €100 into a bank. The bank's reserve ratio is 10%.
So the bank can create credit as follows:

$$€100 \times \frac{1}{10\%} = (€1000 - €100) = €900 \text{ Credit Created}$$

Alternative B

Balance Sheet of a Bank - 4 marks

Assets	€	Liabilities	€
Cash lodged by X	100	X's deposit	100
Total Assets	100	Total Liabilities	100

Balance Sheet of a Bank – 6 marks

Assets		Liabilities	
Cash lodged by X	100	Deposits	100
Loan	900	New Deposits	900
Total Assets	1,000	Total Liabilities	1,000

1. Mr. X lodges €100 into the bank
2. It knows that only 10% is demanded in cash.
3. It has enough cash to support total deposits of €1,000.
4. The bank can create another €900 in deposits. It does this by giving out loans of €900.
5. So €100 cash is sufficient for this purpose. This is shown in the new balance sheet.

Limitations on Banks creating credit

- **Availability of Credit worthy customers**

- In times of recession many businesses experience cash flow difficulties. The risk of these companies failing can be quite high. Banks will be cautious in terms of lending as they will be worried about the risk of the loans not being repaid. Likewise, consumers' loans are riskier in a recession. Consumers might lose their jobs and be unable to repay their loans.

- **Cash deposits in the banks**
  - A bank can only give loans provided that it can attract cash deposits. If it attracts more deposits then it can create more credit. Irish banks have experienced a difficulty in attracting deposits since the beginning of the recession as people favour the higher rates of return with state savings. Depositors have been wary of depositing money fearing that the banks might collapse.
- **Demand for loans / credit by customers**
  - During a recession the demand for credit from businesses and consumers is reduced. Businesses are not likely to invest if they think that the recession is going to be prolonged. Likewise consumers will not borrow if they are worried about their job prospects.
- **Irish banks have weak balance sheets / Deleveraging**
  - Irish banks, through reckless lending during the property boom, have weakened balance sheets. Their ability to create new money has been greatly reduced. Also, Irish banks are being encouraged to deleverage and shrink their balance sheets which may decrease their ability to create credit.
- **Customers' demands for cash**
  - The bank must keep sufficient cash so as to be able to meet the demands of its customers for cash. If during a recession people pay more of their bills in cash then their demand for cash will increase and this will reduce the ability of the banks to create credit.
- **Primary Liquidity Ratio**
  - Through raising the ratio central banks can force commercial banks to hold more of their deposits in cash, therefore diminishing the banks' ability to lend.

How credit tightening has affected the following:

- **Irish motor Industry**
  - **Decreased demand for cars.**
    - It is more difficult for customers to avail of credit in order to purchase cars. This has led to a fall in the demand for both new and second-hand cars.
  - **Increased redundancies**
    - With less demand for cars the numbers of people employed in the sale of cars has declined.
  - **Business Closures/Consolidations**
    - Many small independent car dealerships cannot survive and close. Inability to get credit may result in cash flow problems for the firms, inability to pay suppliers and possible closure.
- **Inflation:**
  - **Inflation will decrease**

        - The supply of money/credit will fall causing a decrease in the spending power of individuals. This fall will lead to a reduction in demand-pull inflation.
    - **Deflation**
        - The price of goods and services will fall due to falling demand and costs of production.

- **<u>Ireland's Balance of Payments:</u>**
    - **Imports decrease**
        - If there is a reduction in the demand for goods and services then we can assume that there will be an automatic fall in the demand for imports.

          OR

    - **Imports Increase**
        - Consumers with a lower spending power may switch consumption to cheaper imported substitute goods.

          OR

    - **Exports Decrease**
        - Business will not be able to avail of credit in order to expand their business. This fall in investment may lead to a decrease in exports. The credit crunch on international markets may reduce aggregate demand resulting in reduced demand for goods produced in Ireland on export markets.

<u>Effects of Mortgage Arrears</u>

- **<u>Households</u>**
    - **Lack of consumer confidence**
        - Increasing debt leading to less spending in the economy and less aggregate demand. Consumers are deleveraging rather than consuming. Mortgage arrears can therefore decrease consumer confidence and hence consumer spending. This can have a negative impact on the economy and society as a whole resulting in reduced spending and a reduction in aggregate demand.
    - **Reduced creditworthiness**
        - Mortgage arrears may mean that households' creditworthiness could be adversely affected thus limiting their ability to borrow.
    - **Less houses for sale / depressed property market**
        - People may be less willing to sell their homes because they will realise losses. This may also have implications on the 'mobility of labour' and the flexibility needed to move to areas where employment opportunities arise. There is little movement in the property market.
    - **Social housing requirement**
        - When people fall into arrears and their house is eventually repossessed, those people then end up on the social housing list,

thus leading to an even longer waiting list. The burden on the tax payer becomes even greater.

- **<u>The banking sector</u>**
  - **Debt write-down deals**
    - Banks may suffer loss of profits due to non-repayment of loans. They must develop strategies to deal with outstanding debt- the forced restructuring of loans into interest only, split mortgages and the extra cost of debt collection. This will have an impact on the banks' ability to lend and on its own indebtedness.
  - **Subject to more regulation and legislation**
    - Banks may be subject to more regulation on debt write-off /restructuring / insolvency legislation where it has to agree as a creditor to a solution. Their ability to meet the stress tests being carried out by ECB may also be affected.
  - **Unemployment in the Banking Sector**
    - Irish banks together with some foreign banks operating here, have pursued a policy of rationalisation, thus radically reducing the number of employees in the sector. The major banks have both pursued the policy of reducing staffing numbers in an effort to cut costs.
  - **Collapse in share prices of bank stocks**
    - Investors have lost confidence in the banks and so their share prices have fallen resulting in reduction in profits, reduction in the capital value of the banks, increase in bank debt and the nationalisation of some banks.

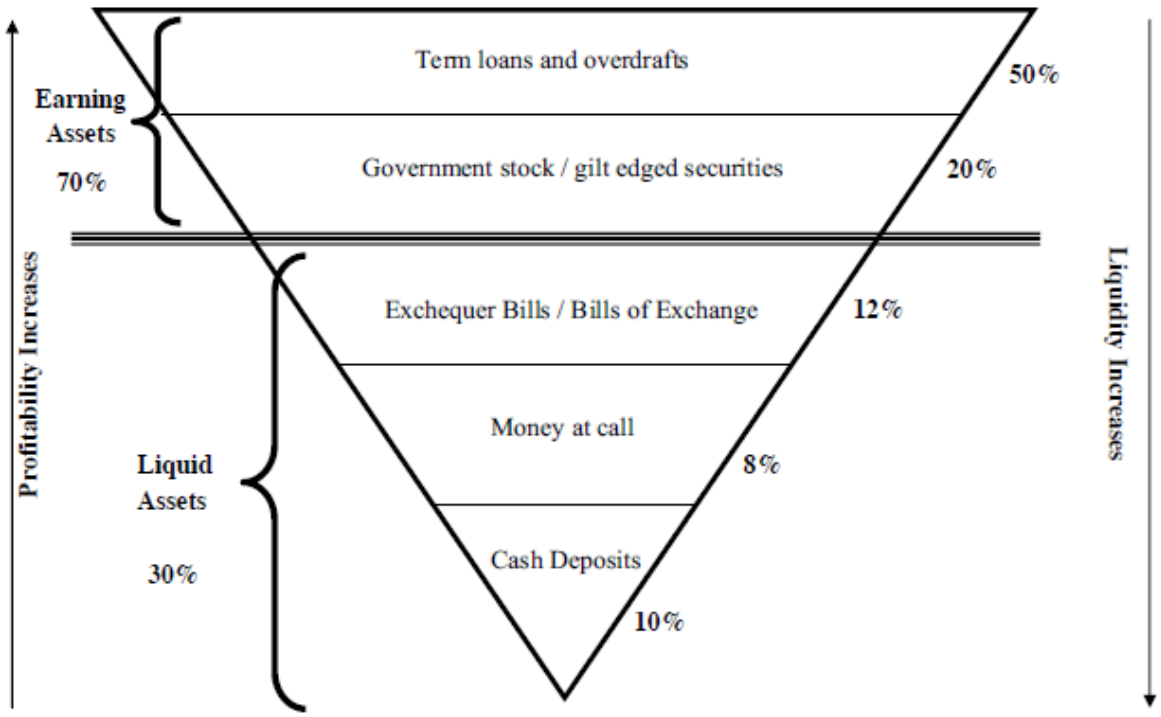
- **<u>Irish Government</u>**
  - **Reduced Tax Revenue for Government**
    - Since many people have been unable to sell their property due to slowdown in property sales, there is a consequent loss of revenue from property transactions including stamp duty for the government etc. Also as people are not buying there is a loss of transaction taxes for the government. Consumers because they have reduced disposable incomes are not spending and so tax revenue to the government may be affected.
  - **More debt write-offs / Guarantor for the Irish banks**
    - The government have de facto become guarantor for the Irish banks. Bank losses are ultimately pushed onto the Irish taxpayers/ Recapitalisation of the banking sector due to non-repayment of capital. Thus, the government may be on the line for future bank liabilities (capital injections).
  - **Increased demand for Social and Affordable Housing**
    - As a consequence of debt default repossessions and the fact that consumers are finding it more difficult to secure a mortgage, a greater proportion of people are being forced to look to the government to provide social housing. In the greater Dublin area, the housing waiting list has increased dramatically.
  - **New measures introduced by government to deal with banking/housing crisis**
    - The government has had to introduce new legislation, increase regulation of the banking sector and try to help households to cope

with mortgage arrears. Measures include: a new Insolvency Act to aid banks to write down debt following bankruptcy / More regulation of banks to deal with arrears / new codes of behaviour for debt collection / A national mortgage-to-rent scheme allows people in mortgage difficulties to switch from owning their home to renting it as a social tenant. People who take up this option no longer own their own home.

How Banks satisfy the twin requirements of liquidity and profitability

- **Profitability:** refers to the need for a bank to make as much profits as possible from its assets to satisfy its shareholders. The more profitable the asset is the less liquid it is.
- **Liquidity:** refers to the need by a bank to have liquid assets in order to meet the demand for cash by its customers. The more liquid the asset is the less profitable it is.

- Banks must strike a balance between the twin requirements of profitability and liquidity. As a result banks structure their holding of assets along the following lines:



- By focusing on profitability (extending credit) at the expense of liquidity a bank may give loans to high risk ventures e.g. commercial

property development loans. Property loans are highly illiquid but can be very profitable. A bank may run the risk of increasing bad debts, falling share prices, a lack of capital and possible bank failure.

- By ignoring liquidity requirements, banks may not have enough cash to meet the demand of their depositors and this could result in a 'run' on the banks and result in bank failure.