



AQA A Level Economics



Your notes

12. Financial Markets & Monetary Policy

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- * Financial Assets
- * Commercial & Investment Banks
- * Central Banks & Monetary Policy
- * Monetary Policy Transmission Mechanisms
- * Regulating the Financial System



Your notes

Financial Markets

An Introduction to Money

- Prior to the **creation of money**, individuals and firms had to accept other goods or services as payment or be **self-sufficient** by producing everything required
- Often lacking self-sufficiency or driven by the **desire for a wider range** of goods/services, **bartering** became the norm, but it too had problems
- As individuals and firms **trade** with each other in order to acquire goods or raw materials, they **require a means of exchange** that is acceptable and easy to use
- Modern **currency** fulfils this purpose, and money functions as **a medium of exchange, a measure of value, a store of value, and a method of deferred payment**

The four Functions of Money

A Medium of Exchange	A Measure of Value	A Store of Value	A Method of Deferred Payment
<ul style="list-style-type: none"> ▪ Without money, it becomes necessary for buyers and sellers to barter (exchange goods) ▪ Bartering is problematic as it requires two people to want each other's goods (double co-incidence of wants) ▪ Money easily facilitates the exchange of goods, as no double co-incidence of wants is necessary 	<ul style="list-style-type: none"> ▪ Money provides a means of assigning value to different goods and services ▪ Knowing the price of a good in terms of money allows both consumers and producers to make decisions in their best interests ▪ Without this measure, it is difficult for buyers and sellers to arrange an agreeable exchange 	<ul style="list-style-type: none"> ▪ Money holds its value over time (of course inflation means that is not always true!) ▪ This means that money can be saved ▪ It remains valuable in exchange over long periods of time 	<ul style="list-style-type: none"> ▪ Money is an acceptable way to arrange terms of credit (loans) and to settle any future debts ▪ This allows producers and consumers to acquire goods in the present and pay for them in the future

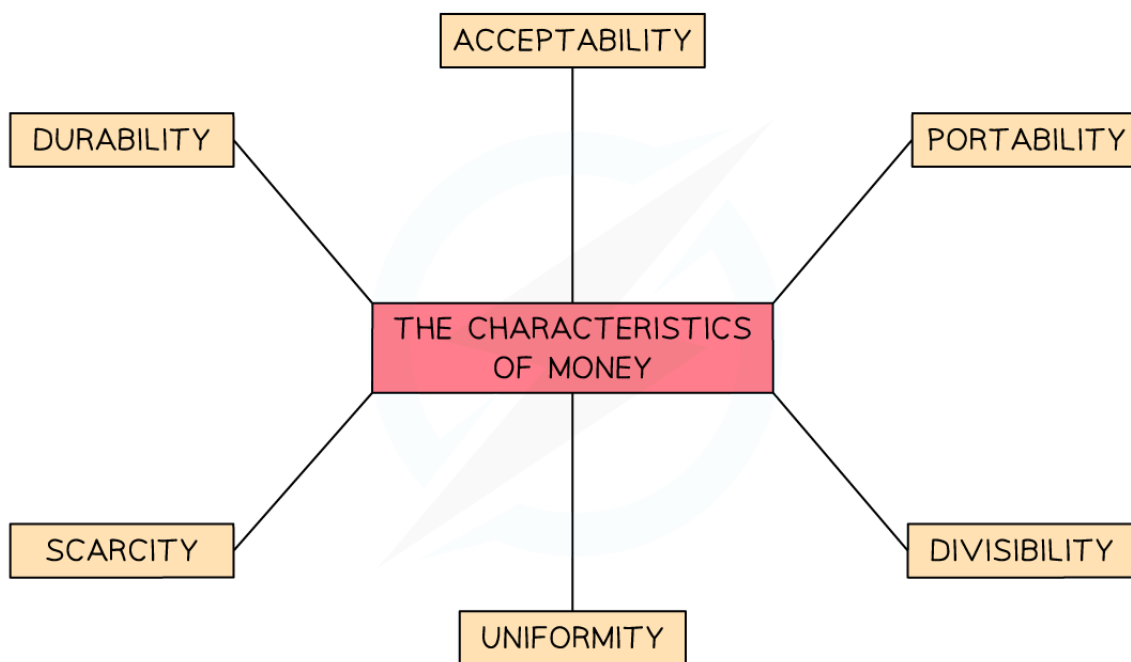


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The Characteristics of Money

- Many items were used for centuries as a **form of money** such as gold, silver, shells, beer, tobacco
- However, each one of these items had some **characteristics** that made them less than ideal for exchange in certain circumstances
- **Good money** has a number of **essential characteristics** - and modern currency fulfils them all

Diagram: The Characteristics of Money



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The six characteristics of good money

1. **Divisibility:** to be a valued medium of exchange, currency must be **divisible**. €50 notes can be exchanged for €10 euro notes or €1 coins
2. **Acceptability:** the currency must be valued and widely accepted by society as a **valid way to pay** for goods/services
3. **Durability:** the currency must be robust, not easily defaced or destroyed, and last for a long period of time



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4. **Scarcity**: the supply of the currency should be such that it **remains desirable** and retains its value in the market. Oversupply would decrease its worth
5. **Uniformity**: in order to be a **valid measure of value**, each denomination must be exactly the same, e.g. every \$50 note must be exactly the same
6. **Portability**: good currency is easy to carry or conceal

The Money Supply, Narrow Money & Broad Money

- **Money supply** refers to the total financial assets functioning as money within an economy
- The money supply is broken into different types of money
 - Demand deposits are funds held in a checking account that account holders can withdraw at any time without prior notice
 - Near money assets are savings deposits, money market funds, and other financial instruments that, while not directly functioning as currency, are highly liquid and easily convertible into cash or used for transactions
 - **M0** includes physical currency and central bank reserves
 - **M1** encompasses currency in circulation and demand deposits
 - **M2** consists of M1 plus savings deposits and similar **near-money assets**
 - **M3** includes M2 along with large time deposits and institutional money market funds

The distinction between narrow money and broad money

Narrow money

- Is part of the money supply made up of cash and **liquid assets** from banks and building society deposits
 - Its primary role is to function as a means of payment

Broad money

- It is part of the **money supply**, comprising of **cash, liquid assets** from banks and building society deposits, and also [popover id="6a1c1Am7Z87QoU8V" label="illiquid assets"]
- **Liquidity** measures the ease in which an asset can be converted into cash
 - An example of an illiquid asset is a **house**, which requires a considerable amount of time to be transformed into cash
 - **Shares** are illiquid but are more easily sold
 - **Cash** is the most liquid of all assets



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Role of Financial Markets

- **Financial markets** are any place or system that provides buyers and sellers the means to exchange goods/services and trade **financial instruments**
 - These include bonds, equities, international currencies and **derivatives**
- 1. **They facilitate saving:** storing money for future use is essential for households & firms. It also provides a pool of money that financial institutions can lend, i.e. one person's savings is another person's borrowing
- 2. **They lend to businesses & individuals:** access to credit is a key requirement for economic growth & development. Being able to borrow money speeds up **consumption** by households & **investment** by firms. It also allows households or firms to purchase **assets** & pay them off over an extended period of time, e.g. mortgages on home purchases
- 3. **They facilitate the exchange of goods & services:** each purchase of goods/services requires the **movement of money** between at least two parties. Financial markets provide multiple ways for this exchange to happen, including phone apps (Google Pay), debit cards, credit cards & bank transfers
- 4. **They provide forward markets in currencies & commodities:** forward markets are also called **futures markets**. They provide some **price stability** in commodity markets and enable investors to make a profit by **speculating** on future prices
- 5. **They provide a market for equities:** equities are shares in public companies that are listed on stock exchanges around the world. Financial markets facilitate both **long term investment and speculation** by providing platforms which connect buyers and sellers e.g. E-Trade

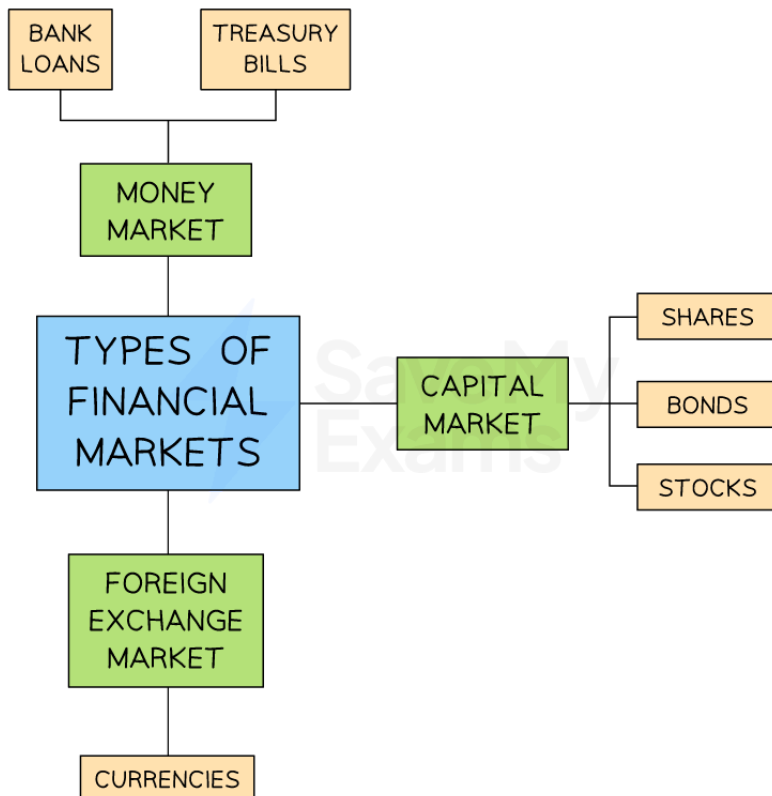
Money, Capital & Foreign Exchange Markets

- The three main financial markets are the Money Market, The Capital market, and the Foreign Exchange Market

Diagram: Types of Financial Markets



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Different financial instruments are sold in each market

An Explanation of each Financial Market

Market	Explanation
Capital Market	<ul style="list-style-type: none"> Capital markets provide medium- to long-term finance; examples include: <ol style="list-style-type: none"> Stocks are traded on the 'second-hand' part of the market <ul style="list-style-type: none"> Public limited companies (PLCs) can raise the funds to finance their long-term growth E.g. the London Stock Exchange Corporate bonds are issued by companies and are sold as new offerings to individuals who lend money to the company Government bonds are debt securities that are initially issued by governments and sold to individuals



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	<ul style="list-style-type: none"> UK bonds are also called 'gilts' or gilt-edged securities This process provides income and could finance budget deficits for the government
Money Market	<ul style="list-style-type: none"> A money market provides short-term finance (<1 year) for firms and the government <ul style="list-style-type: none"> Commercial bills are short term debt issued by private businesses which pay the holder a fixed rate of interest Treasury bills are government-issued bills with a set interest rate. Investors get back their full value at maturity and government gets quick access to funds
Foreign Exchange Market	<ul style="list-style-type: none"> The Foreign Exchange Market, commonly known as forex, FX, or currency market, is a global platform for trading currencies <ul style="list-style-type: none"> Eg. Trading UK £ for EUR Participants in this market include central banks, commercial banks, investors, and individuals



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Financial Assets

The Difference Between Debt & Equity

- **Debt** is a **liability**; it represents what firms owe
 - Individuals or businesses that lend money to a firm are called creditors
 - E.g. Banks loans, corporate bonds, and mortgages
- **Equity** represents all physical and **financial assets** owned by firm
 - Firms can raise finance by issuing **shares** or **corporate bonds**
- Firms can use both debt and equity as a source of finance for their operations

The Difference Between Debt and Equity as a Source of Finance

Characteristic	Debt	Equity
Ownership rights	<ul style="list-style-type: none"> ▪ There are no ownership rights for creditors 	<ul style="list-style-type: none"> ▪ It involves selling shares in a company where shareholders have ownership rights
Risk and return	<ul style="list-style-type: none"> ▪ Money must be repaid to creditors with interest 	<ul style="list-style-type: none"> ▪ Shareholders are entitled to a share of the company's profits in the form of dividends
Voting rights	<ul style="list-style-type: none"> ▪ There are no voting rights for creditors 	<ul style="list-style-type: none"> ▪ Shareholders often have voting rights in company decisions

The Relationship Between Interest Rates & Bond Prices

Key terminology in the bond market

- **Market interest rates** (also known as **yields**) are the cost of borrowing money or the return on savings
- **Bond prices** are the amount investors are willing to pay for government **bonds**

- Governments and big companies issue bonds to raise funds for various purposes, like covering a government's budget deficit or allowing a company to invest in new equipment

Nominal Value, Coupon and Maturity of Bonds



Your notes

Nominal Value	Coupon	Maturity
<ul style="list-style-type: none"> ▪ Investors buy bonds at face value, also known as the nominal value, becoming bondholders 	<ul style="list-style-type: none"> ▪ A coupon is the guaranteed fixed annual interest payment to the investor ▪ The interest rate is fixed on the duration of the bond 	<ul style="list-style-type: none"> ▪ Maturity is the date of expiration of the bond ▪ It is usually more than one year, as a result, this investment is illiquid ▪ At maturity, investors receive the full nominal value of the bond
<ul style="list-style-type: none"> ▪ E.g the nominal value is £1,000 	<ul style="list-style-type: none"> ▪ E.g An investor receives 5% of the nominal value of a bond each year 	<ul style="list-style-type: none"> ▪ E.g Maturity date is 5 years

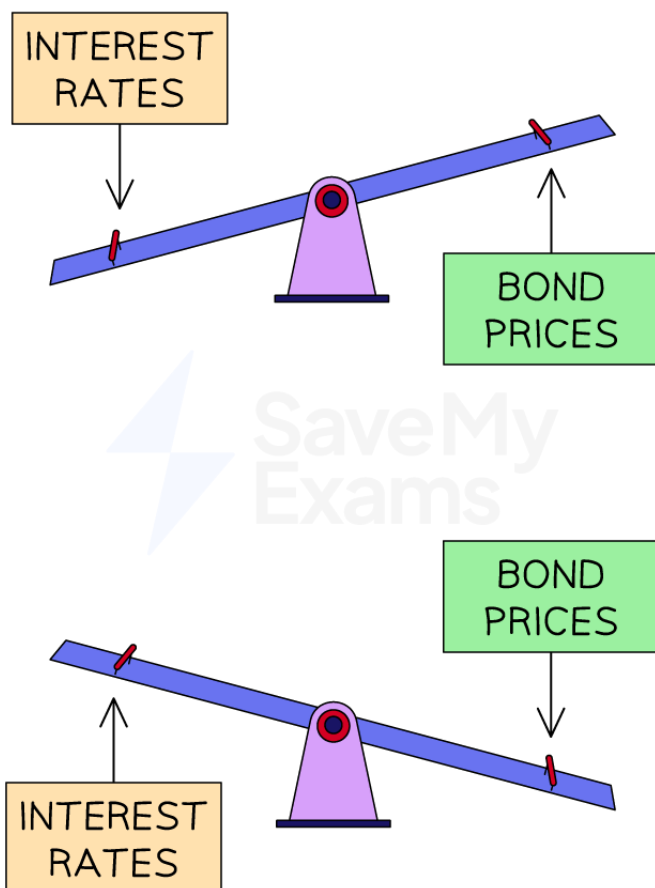
Interest rates, bond prices and secondary markets

- Before a bond reaches maturity, it can be resold in **secondary markets**
- Investors can buy or sell them at prices different from the **nominal value**
 - E.g. **Market price** is £1,100 compared to **nominal value** of £1,000
- Market prices for bonds vary in the secondary market due to **market forces**
 - If the interest on bonds is **high** relative to other **returns on investment**, demand for bonds increases
 - The lower the demand for bonds, the lower the market price

Diagram: The Relationship Between Interest Rates and Bond Prices



Your notes



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When interest rates rise, bond prices fall – and vice versa

- Market forces cause interest rates to vary
 - If government issues a bond this year with 5% interest, they may have to issue bonds with 7% interest next year due to market forces
 - The interest rate on each bond is **fixed**
- 5% bonds now have a **less attractive** return on investment in the secondary market
 - E.g, They have a 2% lower return compared to new bonds issued
 - Existing bonds will be **less attractive** to investors
 - As a result, **demand falls** for existing bonds, causing price of bonds to fall
- The opposite will also be true. If the government issues new bonds at a lower interest rate, then the demand for existing bonds will increase



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- If government issued a bond last year at 5%, they may have to issue bonds at 3% this year
- Existing bonds will be **more attractive** to investors than the new bonds
- As a result, **demand for existing bonds rises**, causing the price to rise
- The new bond price may fall relatively quickly in the secondary market
- Therefore, long-run **rate of interest and yields** have an **inverse relationship** with **government bonds prices**
 - As interest rates **rise**, bond prices **fall**
 - As interest rates **fall**, bond prices **rise**



Worked Example

Calculating a yield on a government bond

Let's consider a government issuing a new 50-year gilt with a nominal value of £100, an annual coupon payment of £5, and a current market price of £75. Calculate the yield on the gilt at this point.

Step 1: Identify the variables

- Nominal value (face value) of the gilt: £100
- Annual coupon payment: £5
- Current market price: £75

Step 2: Apply the formula

$$\begin{aligned}\text{Yield} &= \frac{\text{Annual coupon payment}}{\text{Current market price}} \times 100 \\ &= \frac{\text{£ } 5}{\text{£ } 75} \times 100 \\ &= 6.67\%\end{aligned}$$

Step 3: Interpret the result

The yield on the gilt-edged security at the given market price is approximately 6.67%. This represents the annual return on the investment based on the bond's current market conditions





Your notes

Worked Example

Calculate a government bond's current market price

The annual coupon payment on a 30-year bond issued last year is £10. When the bond was first sold, the long-run interest rate was 4%. The bond's maturity value is £150. Within the last year, long-run interest rates have fallen to 2%.

Step 1: Identify the variables

- Annual coupon payment: £10
- Initial long-run interest rate: 4%
- Maturity value (face value) of the bond: £150
- Current long-run interest rate: 2%

Step 2: Apply the formula

$$\text{Yield} = \frac{\text{Annual coupon payment}}{\text{Bonds current market price}} \times 100$$

$$2 = \frac{£ 10}{\text{Bonds current market price}} \times 100$$

$$\text{Bonds current market price} = \frac{£ 10}{2} \times 100$$

Step 3: Interpret the result

The approximate current market price of the bond, given the decrease in long-run interest rates, is £500



Your notes

Commercial & Investment Banks

The Distinction Between Commercial & Investment Banks

- **Commercial banks** (also known as **retail** or **high-street** banks) are financial institutions that make profits by selling banking services to their customers
- They serve the general public, both personal consumers and businesses
- **Investment banks** are **global banks** that assist in raising finance for companies, financial institutions, governments, and organisations

The Characteristics of Commercial & Investment Banks

Characteristic	Commercial Banks	Investment Banks
Services offered	<ul style="list-style-type: none"> ▪ Provide loans to individual consumers and businesses ▪ Eg. mortgages ▪ Provide safekeeping and returns for deposits / savings 	<ul style="list-style-type: none"> ▪ They issue shares and bonds ▪ Provide advisory services for companies undergoing mergers or acquisitions ▪ Financial advisory services to businesses
Examples	<ul style="list-style-type: none"> ▪ Barclays ▪ HSBC ▪ Deutsche Bank in Germany 	<ul style="list-style-type: none"> ▪ J.P. Morgan ▪ Morgan Stanley ▪ Citigroup
Branch network	<ul style="list-style-type: none"> ▪ Extensive networks of branch banks in high streets and shopping centres ▪ Numerous large commercial banks have opted to close a number of their physical branch locations due to rise of online banking 	<ul style="list-style-type: none"> ▪ Not dependent on branch networks; global presence ▪ Historically, investment banks were situated within the square mile of the City of London

The Structure of a Commercial Bank's Balance Sheet



Your notes

- A commercial banks balance sheet shows its **assets** and **liabilities**
- **Assets** are resources **owned by** a bank, e.g. cash, stock
 - It also includes money and assets owed to the bank, eg. investment **bonds**, **commercial and treasury bills**, **advances**
- **Liabilities** are the amount **owed by** the bank and are a source of finance for the bank
 - Eg. **share capital** or **reserves**, bonds the bank issued, deposits from savers

Balance Sheet for a Commercial Bank

Asset	£bn	Liabilities	£bn
Liquid assets	50	Capital	20
Investment	40	Long-term borrowing	10
Advances	110	Deposits	170
Total assets	200	Total liabilities	200

Source: [AQA](#)

- It is called a balance sheet because the total assets (£200bn) should always **equal** total liabilities (£200bn)
- The income earned from a bank's liabilities is used to finance / purchase assets

Potential Conflicts Between Achieving Liquidity, Security & Profitability

- Commercial banks face a challenge in trying to balance their objectives of:
 - **Liquidity**
 - **Security**
 - **Profitability**

Liquidity



Your notes

- Banks want enough **cash on hand** that they can always **meet withdrawal** requests from their customers
- This **liquidity** helps their customers not lose faith in the bank and prevents a **run on the bank**

Security

- Banks need to ensure that any money they lend out is likely to be **repaid**
- This means that the loan is **secure**
- Banks will generally look for security from the borrower on larger loans, such as **mortgages**

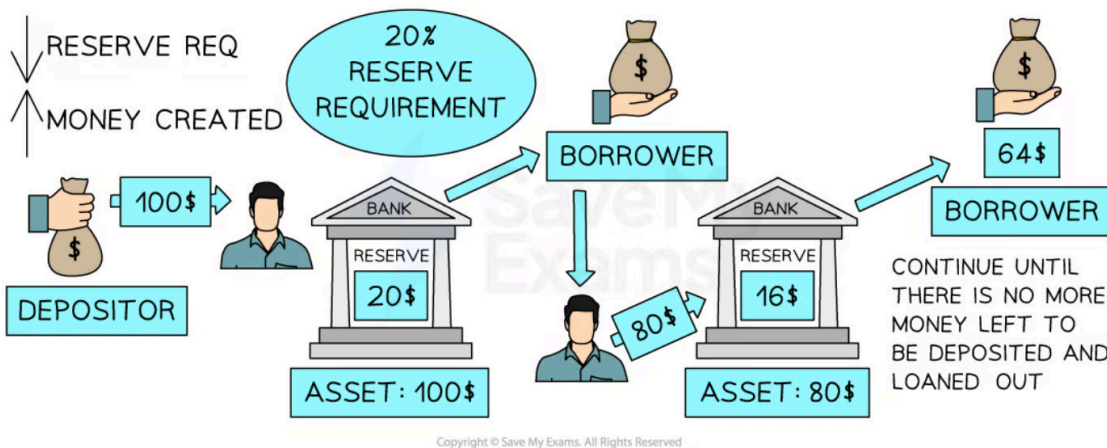
Profitability

- Banks also want to be able to earn as much **interest** on their loans as possible
- Higher interest rates are usually charged on more risky loans
- The bank has to balance their desire for **profitability** with their desired level of **security**

How Banks Create Credit

- The process of creating credit by commercial banks, also known as **fractional reserve banking**, involves a cycle of **lending and deposit creation**

Diagram: Creation of Credit by Banks



An initial deposit of \$100 is multiplied as successive rounds of borrowing and deposits occur in the banking system

The Money Creation Process (Fractional Banking)



Your notes

1. Initial Deposit

- A customer **deposits** \$100 into a commercial bank

2. Reserve Requirement

- Banks are required by the Central Bank to hold a certain percentage of their **deposits as reserves** so as to meet the demands of customers who want a portion of their money back
- In this example, the reserve requirement is 20%, so \$20 must be retained

3. Lending and Loan Creation

- Banks keep a fraction of the deposit (20%) and lend out the remainder to borrowers

4. Deposit Expansion

- The loaned amount is then received by the borrower, who deposits the funds into their own bank account
- These **new deposits** can be used by the other bank as the basis for **creating further loans**
- The cycle continues as banks retain a portion of the new deposits as reserves and lend out the rest, leading to further loan creation, deposit expansion, and potential new rounds of lending

5. Money Supply Expansion

- Through this process, new loans and subsequent deposit creation increase the overall money supply in the economy
- The original deposit has effectively multiplied into **multiple deposits** across the banking system



Worked Example

Calculating an increase in bank deposits

A customer makes a cash deposit of £20,000. Retail banks are required to keep a reserve of 10% of total assets in cash

Calculate the maximum level of total bank deposits resulting from £20,000 into the banking system

Step 1: Fill in the formula

$$\text{Bank deposit} = \frac{\text{Initial deposit}}{\text{Reserve}}$$

$$= \frac{£ 20,000}{10\%}$$

$$= £ 200,000$$

Step 2: Interpret the answer

As all banks in the banking system have chosen to operate a 10% cash ratio, assuming that the banking system retains the extra cash, total bank deposits can increase to £200,000 following a deposit of £20,000 into the system

**Examiner Tips and Tricks**

You should demonstrate awareness that many banks are engaged in both investment banking and commercial banking activities. This may increase systemic risk as there is an incentive for the bank to use its deposits in riskier investment activities, such as share trading.



Your notes



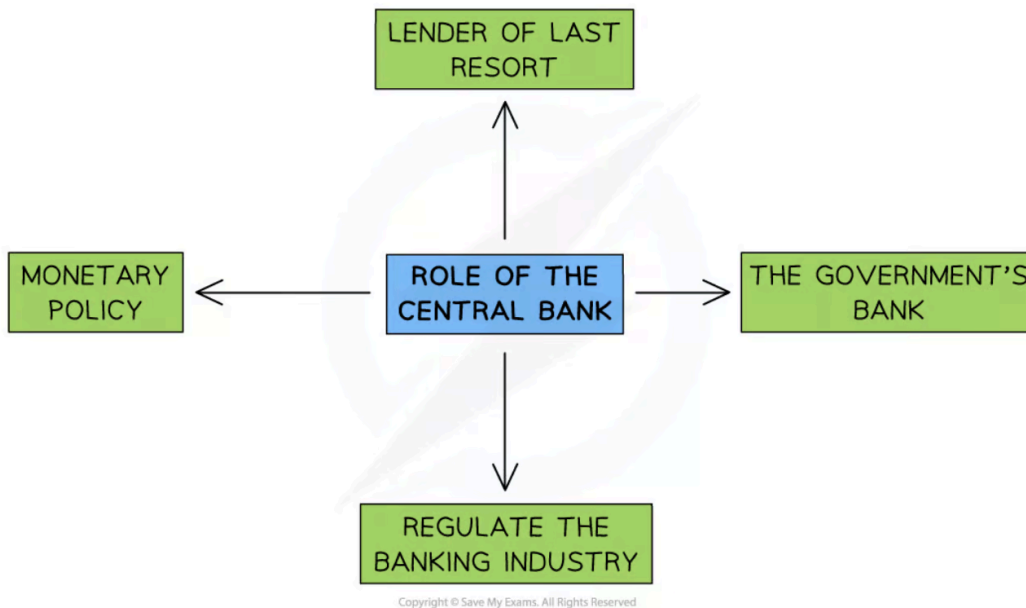
Your notes

Central Banks & Monetary Policy

Main Functions of a Central Bank

- A central bank is the government's bank that issues currency and controls the supply of money in the economy
- Central banks play a vital role in maintaining stability in the **financial system**
- The policy tools at their disposal help to meet government **macroeconomic objectives**

Diagram: Role of the Central Bank



Central Banks play four important roles in the economy

- 1. Banker to the government:** The government sets the **annual budget**, but it is the Central Bank that manages the tax receipts and payments. In 2022, there were 5.7 million public sector workers in the UK who had to be paid each month
- 2. Banker to the banks—lender of last resort:** Commercial banks are able to borrow from the Central Bank if they run into short-term liquidity issues. Without this help, they might go bankrupt, leading to instability in the financial system and a potential loss of savings for many households



Your notes

3. Regulation of the banking industry: The high level of **asymmetric information** in financial markets, it requires that commercial banks be regulated in order to protect consumers. One of the key regulatory actions to manage the money supply and promote stability in the financial system is the implementation of **required reserve ratios**.. Raising the ratio decreases the money supply in the economy, and vice versa

4. Implementation of monetary policy: This involves the Central Bank taking action to influence **interest rates**, the **money supply**, **credit** and the **exchange rate**

The Objectives of Monetary Policy

- **Monetary policy** is used to help the government achieve their **macroeconomic objectives**
- Specifically, the use of monetary policy aims to achieve
 - A low and stable rate of inflation
 - Low unemployment
 - Reduce **trade/economic** cycle fluctuations
 - Promote a stable economic environment for long-term growth
 - To control the level of exports and imports (net external balance)
- When a policy decision is made, it creates a **ripple effect** through the economy, impacting the macroeconomic objectives of the government

The Role of the Monetary Policy Committee of the Bank of England

- The **Monetary Policy Committee (MPC)** under the **Bank of England** (UK Central Bank) is responsible for setting **monetary policy**
 - They meet **eight times** a year to set policy and consist of **nine members**
 - The single most important consideration in their deliberations is the **inflation target** of 2% CPI
 - At this meeting, they set the **bank rate** and discuss if **quantitative easing** is required
 - Policy is decided by majority vote
 - It can take up to two years for the full effects of decisions to be seen in the economy

Expansionary & Contrationary Monetary Policy

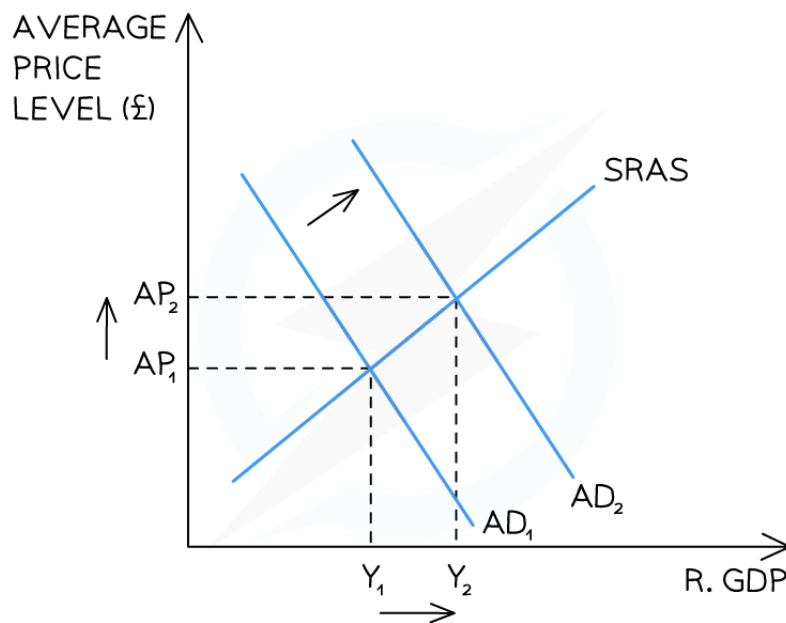
Expansionary Monetary Policy



Your notes

- **Monetary policy** can be **expansionary** in order to generate further economic growth (also referred to as loose monetary policy)
 - Expansionary policies include reducing interest rates, increasing QE, or **depreciating** the exchange rate
- To understand the **effects of monetary policy** on an economy, it is useful to know how aggregate demand (**AD**) is calculated
 - $AD = \text{household consumption (C)} + \text{firms investment (I)} + \text{government spending (G)} + \text{exports (X)} - \text{imports (M)}$
 - $AD = C + I + G + (X - M)$
- From this, it is logical that **changes to monetary policy** can influence any of these components - and often several of them at once
- **Expansionary monetary** policy aims to shift aggregate demand (AD) to the right

Diagram: Expansionary Monetary Policy



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AD/AS diagram illustrating expansionary monetary policy which increases real GDP ($Y_1 \rightarrow Y_2$) and average price levels ($AP_1 \rightarrow AP_2$)

Diagram analysis



Your notes

- The economy is initially in **macroeconomic equilibrium** AP_1Y_1
- The Central Bank wants to **boost economic growth** and lower interest rates
- Lower interest rates cause investment and consumption to increase, which are components of AD
- Aggregate demand increases from $AD_1 \rightarrow AD_2$
- The economy reaches a new equilibrium at AP_2Y_2 – a higher average price level and a greater level of national output

An Example of how Expansionary Monetary Policy Impacts on the Goals

The USA Federal Reserve Bank commits to an extra \$60bn a month of QE	
Effect on the economy	<ul style="list-style-type: none"> ▪ Commercial banks receive cash for their bonds → liquidity in the market increases → commercial banks lower lending rates → consumers and firms borrow more → consumption and investment increase → AD increases
Impact on macroeconomic aims	<ul style="list-style-type: none"> ▪ Economic growth increases ▪ Inflation rises ▪ Unemployment may fall as output increases and more workers are required ▪ Net external demand worsens (with higher price levels exports may decrease and with rising incomes, imports may increase)

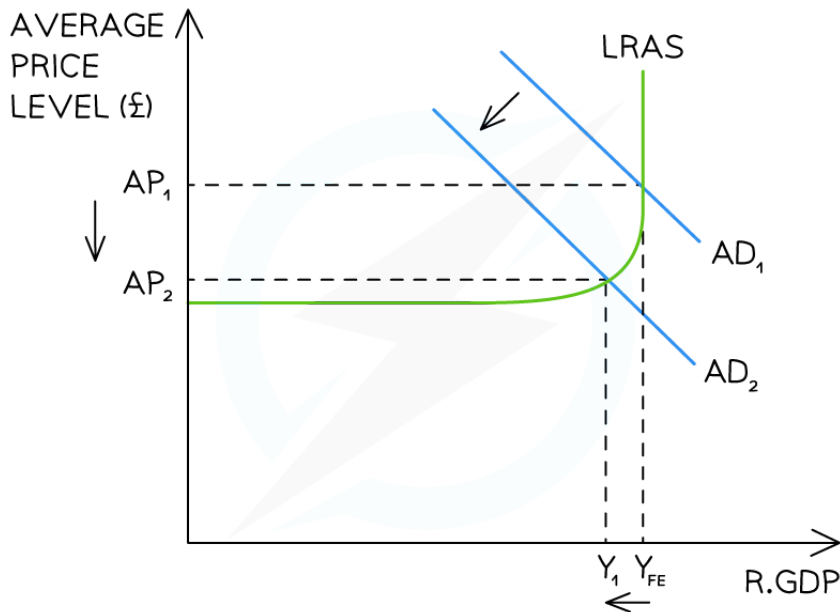
Contractionary Monetary Policy

- **Monetary policy** can be **contractionary** in order to slow down economic growth or reduce inflation (also referred to as tight monetary policy)
 - **Contractionary** policies include increasing interest rates, decreasing/stopping QE, or **appreciating** the exchange rate
- **Contractionary monetary policy** aims to shift aggregate demand to the **left**

Diagram: Contractionary Monetary Policy



Your notes



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Keynesian diagram illustrating contractionary monetary policy which decreases the real GDP ($Y_{FE} \rightarrow Y_1$) and average price levels ($AP_1 \rightarrow AP_2$)

Diagram analysis

- The economy is initially in **macroeconomic equilibrium** $AP_1 Y_{FE}$
- The Central Bank is wanting to **lower inflation towards its target of 2%** – and increases interest rates
- Higher interest rates cause **investment** and **consumption** to decrease
- Aggregate demand decreases from $AD_1 \rightarrow AD_2$
- The economy reaches a new equilibrium at $AP_2 Y_1$ – a lower average price level and a smaller level of national output

An Example of how Contractionary Monetary Policy Impacts on the Goals

The Central Bank increases interest rates	
Effect on the economy	<ul style="list-style-type: none"> ▪ Existing loan repayments for households become more expensive \rightarrow discretionary income reduces \rightarrow consumption decreases \rightarrow total demand falls



Your notes

	<ul style="list-style-type: none"> Firms are less likely to borrow → less investment in capital takes place → AD falls Hot money flows increase → the exchange rate appreciates → exports more expensive and imports cheaper → net exports reduce → AD decreases
Impact on macroeconomic aims	<ul style="list-style-type: none"> Economic growth slows down Inflation eases Unemployment may increase as output is falling and fewer workers are required Net external demand is likely to worsen as both exports and imports reduce (exports more expensive due to higher exchange rate and imports cheaper – but households have less income for imports)



Examiner Tips and Tricks

When analysing monetary policy, it is worth noting that monetary policy (4–8 x per year) can be adjusted more quickly than fiscal policy (usually once per year). However, the impact of fiscal policy is more predictable than the impact of monetary policy. For example, households may not borrow more money if their confidence in the economy is low – irrespective of how low interest rates go.



Your notes

Monetary Policy Transmission Mechanisms

Monetary Policy Actions

- The Central Bank has several policy actions available to use
- Depending on the severity of the economic conditions faced, they can choose to make changes to several if required

Monetary Policy Actions

Interest Rates	Exchange Rates	Money Supply	Forward Guidance
<ul style="list-style-type: none"> ▪ Tool for influencing borrowing, spending, and investment in the economy ▪ Adjusted by central banks through changes in the bank rate ▪ Lower rates stimulate economic activity; higher rates can cool down an overheating economy 	<ul style="list-style-type: none"> ▪ Reflect the value of one currency relative to another ▪ Central banks can influence exchange rates by buying or selling currencies ▪ Weaker currency boosts exports; stronger currency can control inflation but may increase imports 	<ul style="list-style-type: none"> ▪ Total amount of money circulating in an economy ▪ Controlled by central banks through open market operations such as using the required reserve requirements or quantitative easing ▪ Crucial for managing inflation, interest rates, and overall economic stability 	<ul style="list-style-type: none"> ▪ Communication tool used by central banks to provide insight into future monetary policy intentions ▪ Aims to influence market expectations by signalling likely future actions regarding interest rates, inflation targets, or other policy measures ▪ Helps guide economic behaviour by managing expectations about future monetary policy actions

The Factors Considered by the MPC When Setting the Bank Rate

- The MPC considers how the economy is performing when **adjusting the bank rate**

- Their main goal is to achieve **price stability**
- They also consider the stage of the **trade cycle** and support government in achieving their **macroeconomic objectives**

Factors to Consider when Setting the Bank Rate

Factors to consider	Macroeconomic effects	Impact on Setting Bank Rate
Economic expansion	<ul style="list-style-type: none"> ▪ An economic expansion is associated with high levels of economic growth and low levels of unemployment ▪ This increases AD and causes inflationary pressures 	<ul style="list-style-type: none"> ▪ Historically, when the economy was overheating, the Central Bank increased interest rates. This is known as a contractionary monetary policy ▪ During recent periods of high inflation, interest rates have decreased or remained unchanged. This is because adjustments also consider economic growth forecasts and geopolitical uncertainty
Economic contraction	<ul style="list-style-type: none"> ▪ An economic contraction is associated with a recession and low levels of unemployment ▪ This decreases AD and causes deflationary pressures 	<ul style="list-style-type: none"> ▪ Historically, when the economy is contracting, the bank has decreased its interest rate. This is known as an expansionary monetary policy ▪ This may not always be possible, as other variables, such as high house prices, may impact interest rate adjustment



Your notes

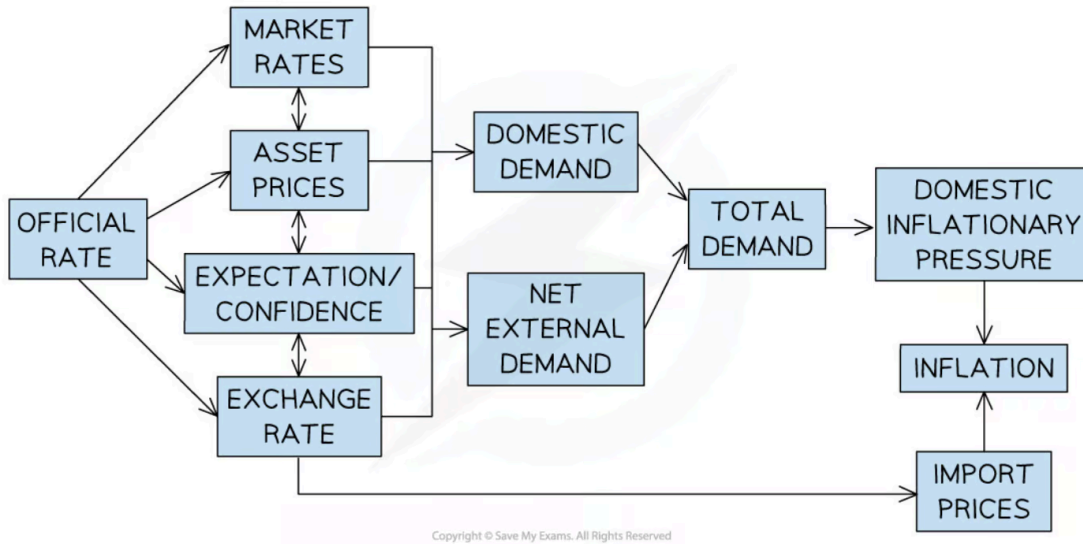
Monetary Policy Transmission Mechanisms

- The two main instruments of monetary policy include:
 - **Incremental adjustments** to the interest rate (usually not more than 0.25%)
 - **Quantitative easing** which increases the supply of money in the economy
 - The Central Bank creates new money and uses it to buy open-market assets
- When a policy decision is made, it creates a **ripple effect** through the economy and this effect is known as a transmission mechanism

Diagram: Incremental Changes to Interest Rates



Your notes



The transmission mechanisms of changes to the interest rate

Before Explaining a Mechanism from the Diagram Above, Key Terminology Can Be Reviewed Below

Official Rate	Market Rates	Asset Prices
Exchange Rate	Net External Demand	Inflation

Example 1

- **Official rate decreases by 0.25%** → market rates decrease → loans are cheaper → consumers borrow more → consumption increases → AD increases → **inflation increases**

Example 2

- **Official rate decreases by 0.25%** → market rates decrease → mortgages are cheaper → property buyers borrow more → demand for houses increases → **asset prices increase**

Example 3

- **Official rate decreases by 0.25%** → market rates decrease → buyers borrow more → asset prices increase → households with assets feel wealthier → consumption increases → AD increases → **inflation increases**

Example 4

- **Official rate increases by 0.25%** → hot money flows increase → the exchange rate appreciates → exports more expensive and imports cheaper → net exports reduce → AD decreases → **inflation decreases**



Your notes

Example 5

- **Official rate increases by 0.25%** → market rates increase → existing loan repayments now more expensive to repay → discretionary income falls → consumption decreases → AD decreases → **inflation decreases**

The transmission impact on exchange rates

- A change to the bank rate will have an impact on the exchange rate
 - When the **exchange rate changes**, there will be a ripple effect through the economy
 - This can be seen in the diagram above, where a change to the exchange rate **leads to changes in the net external demand** as well as the import prices

How Interest Rates Impact Exchange Rates

Impact of a Decrease in Interest Rates	Impact of an Increase in Interest Rates
<ul style="list-style-type: none"> ▪ A decrease in UK interest rates is less attractive for investors <ul style="list-style-type: none"> ▪ This causes capital flight as investors move their money out of the country ▪ As a result, the demand for the pound decreases, causing the exchange rate to fall ▪ UK exports will become relatively cheaper due to a weaker exchange rate <ul style="list-style-type: none"> ▪ Therefore, the initial rise in value of the pound may be mitigated by an increase in export sales ▪ This increase in demand is dependent on price elasticity of demand of exports 	<ul style="list-style-type: none"> ▪ An increase in UK interest rates is more attractive for investors <ul style="list-style-type: none"> ▪ This causes capital inflow as investors move their money into the country ▪ As a result, the demand for the pound increases, causing the exchange rate to rise ▪ UK exports become relatively more expensive due to a stronger exchange rate <ul style="list-style-type: none"> ▪ Therefore, the initial fall in value of the pound may be mitigated by a decrease in export sales ▪ This increase in demand is dependent on price elasticity of demand of exports

Using Interest Rates to Lower Inflation

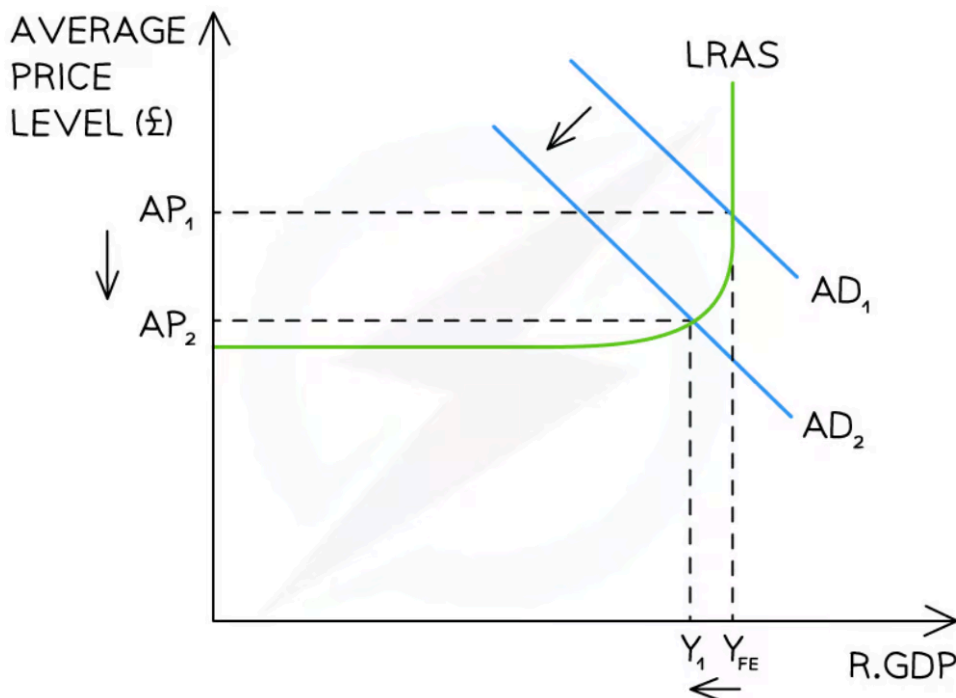


Your notes

Is inflation too high? Increase the interest rates

- If the MPC wants to lower inflation, it will **increase** the interest rate
- This lower rate aims to reduce aggregate demand and control **inflation**
- **Contractionary monetary policy** will shift aggregate demand to the left
- The Bank of England **cut the Bank Rate** nine times between December 2007 & March 2009 dropping from **5.75% to 0.5%**

Diagram: Keynesian Contractionary Demand-side Policies



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Decrease in real GDP ($Y_{FE} \rightarrow Y_1$) and average price levels ($AP_1 \rightarrow AP_2$)

Diagram analysis

- Contractionary monetary policy will shift aggregate demand to the left ($AD_1 \rightarrow AD_2$)
- AD shifts to the left because a higher interest rate impacts the components: Consumption (C), Investment (I) and Exports and Imports (X - M) via the exchange rate



Your notes

Consumption

- With the rise in interest rates, consumption declines as **household borrowing** is discouraged and savings are encouraged (C)
- The increase in interest rates on mortgages results in **decreased disposable income** for households
- Consumers now have less income and tend to spend less, leading to a notable decrease in aggregate demand ($AD_1 \rightarrow AD_2$)
- This fall in aggregate demand contributes to a reduction in real GDP ($Y_{FE} \rightarrow Y_1$) and average price levels ($AP_1 \rightarrow AP_2$)

Investment

- Investment falls as businesses borrow less due to higher interest rates
- Higher borrowing costs serve as a disincentive for businesses to undertake new investment projects
 - This reduction in business investment leads to a decline in aggregate demand in the UK economy ($AD_1 \rightarrow AD_2$)
 - The contraction in aggregate demand results in a reduction in real GDP from its potential level (Y_{FE}) to a lower level (Y_1)
 - Additionally, the weakened demand contributes to a decrease in average price levels, transitioning from $AP_1 \rightarrow AP_2$

Net Exports

- A higher interest rate increases demand for the UK pound, as it offers a better return on investment, increasing **capital flows** into the currency
- The increased demand for the pound causes the **exchange rate** to rise. As a result:
 - **Exports** become relatively **more expensive** and less competitive in the global market
 - **Imports** become relatively **cheaper** and more competitive in the UK markets.
 - This worsens the UK's Balance of Payment on the current account.
- Aggregate Demand (AD) shifts to the left as a result of these economic changes, reflecting reduced overall spending in the economy

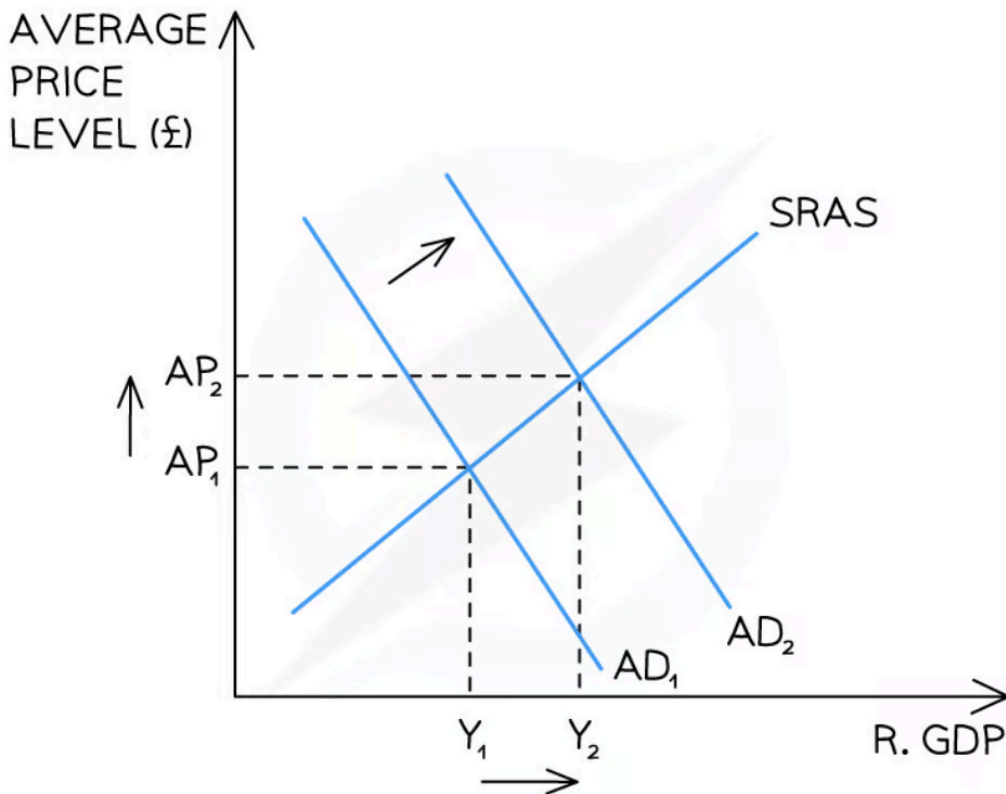
Using Interest Rates to Increase Inflation

Is inflation too low? Decrease the interest rates

- If the MPC wants to encourage borrowing, it **will decrease** the interest rate

- This lower rate aims to stimulate aggregate demand
- This type of policy is known as a **demand-side expansionary** policy

Diagram: Expansionary Demand-side Policies



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Increase in real GDP ($Y_1 \rightarrow Y_2$) and average price levels ($AP_1 \rightarrow AP_2$)

- **Expansionary Monetary Policy** will shift aggregate demand to the right ($AD_2 \rightarrow AD_1$):
- AD Shifts to the right because lower Interest Rates Impact the Components: Consumption (C), Investment (I), and Exports and Imports (X – M) via the Exchange Rate:

Consumption

- Lower interest rates stimulate consumption as households have more disposable income.
- Increased consumer spending contributes to a rise in aggregate demand ($AD_2 \rightarrow AD_1$)
- This increase in aggregate demand leads to an expansion in real GDP ($Y_1 \rightarrow Y_{FE}$) and average price levels ($AP_2 \rightarrow AP_1$)



Your notes



Your notes

Investment

- Lower interest rates make borrowing more attractive for businesses, encouraging new investment projects
 - The increase in business investment contributes to an increase in aggregate demand ($AD_2 \rightarrow AD_1$)
 - This expansion in aggregate demand results in an increase in real GDP from its potential level (Y_{FE}) to a higher level (Y_1)
- Additionally, the heightened demand contributes to an increase in average price levels, transitioning from ($AP_2 \rightarrow AP_1$)

Net Exports

- A lower interest rate reduces demand for the UK pound, as it offers a lower return on investment, leading to decreased capital flows into the currency
- The decreased demand for the pound causes the exchange rate to fall. As a result:
 - Exports** become relatively **cheaper** and more competitive in the global market.
 - Imports** become relatively more **expensive** and less competitive in the UK markets.
 - This improves the UK's **Balance of Payment** on the current account
- Aggregate Demand (AD) shifts to the right as a result of these economic changes, reflecting increased overall spending in the economy ($AD_2 \rightarrow AD_1$)



Your notes

Regulating the Financial System

Regulation of the UK Financial System

- Historically, a **lack of regulation** of financial activities has led to risky loans, poor investments, and banking losses
- In response, the Bank of England has increased its supervision and regulation of financial institutions to provide **financial stability** and a **degree of protection** for depositors and borrowers
- The following regulatory bodies were set up to oversee the financial system in the UK:
 - The Prudential Regulation Authority (PRA)
 - The Financial Policy Committee (FPC)
 - The Financial Conduct Authority (FCA)

Role of Regulatory Bodies in the UK

Regulatory body	Explanation
The Prudential Regulation Authority (PRA)	<ul style="list-style-type: none">The PRA creates regulations for banks, insurers and co-operative institutions. It also helps to avoid insolvency of bankThey achieve this by monitoring adherence to rules and regulations<ul style="list-style-type: none">E.g The PRA worked with the Royal Bank of Scotland after the 2008 economic crash. To reduce effects from risky loans and poor investments, they advised them to sell parts of the bank, cut costs, and manage risks



Your notes

The Financial Policy Committee (FPC)	<ul style="list-style-type: none"> The FPC was established after the 2008 recession to create financial stability They aim to identify, track, and address risks to the financial system in the UK <ul style="list-style-type: none"> To do this, they created a stress test for banks to help them withstand future economic shocks. This requires banks to be able to cover potential losses using a capital buffer Tighter regulations on the amount individuals were able to borrow were set based on incomes. This avoids excessive lending and aims to prevent another housing bubble
The Financial Conduct Authority (FCA)	<ul style="list-style-type: none"> The FCA regulates financial services firms and financial markets in the UK. This ensures that they are operating fairly and in the best interest of consumers <ul style="list-style-type: none"> E.g. In 2023, the FCA reviewed NatWest Group after potential data protection breaches and their management of account closures

Reasons why Banks Fail

- The Financial Crisis of 2008 highlighted fragility of the financial system
 - Governments had to step in to save individual banks from failure (e.g. RBS)

Reasons that Banks Fail

Reasons	Explanation
High-risk loans	<ul style="list-style-type: none"> When a bank lends too many risky loans it can result in bad debt for banks E.g Northern Rock, a mortgage lender that was unable to manage its debts due to reckless lending practices <ul style="list-style-type: none"> This resulted in a run on the bank as long queues formed outside branches when depositors tried to access their savings
Regulation violation	<ul style="list-style-type: none"> Banks can fail if they do not follow regulatory requirements or operate within the recommended guidelines This may be as a result of inadequate anti-money laundering controls or interest rate manipulation



Your notes

	<ul style="list-style-type: none"> E.g, HSCB were accused of facilitating money laundering activities and failed to put in controls to monitor activities
Speculation & market bubbles	<ul style="list-style-type: none"> The higher the money supply in an economy, the greater the speculation & potential for market bubbles Significant amounts of quantitative easing since 2008 have increased the money supply & created potential bubbles in different markets (e.g. property, cryptocurrency, shares)
Asymmetric information	<ul style="list-style-type: none"> Many financial products are complex and difficult for consumers to understand The sellers often have a significant information advantage over the buyers <ul style="list-style-type: none"> E.g. During the financial crisis, financial institutions bundled thousands of mortgages together and sold them on to investors. The sellers had more information on the risk profile of each bundle than the buyers E.g. Mortgage sellers often understand the implications of interest rate changes to repayments much better than the average consumer The Global Financial Crisis demonstrated that asymmetric information exists between financial markets and the regulators set up to monitor them

Liquidity & Capital Ratio

- The financial crisis of 2007, highlighted the need to regulate excessive risk-taking by financial institutions and banks
- Banks are now required to meet **capital and liquidity ratios** to evaluate their capacity to manage unexpected **shocks**

Liquidity ratio

- The liquidity ratio is the ratio of a bank's cash and other liquid assets to its **deposits**
- This ratio measures a bank's ability to meet its short-term obligations and cash needs. It assesses a bank's **liquidity** by comparing liquid assets to its short-term **liabilities**

Capital ratio

- The capital ratio is the amount of capital on a bank's balance sheet as a proportion of its **loans**
- It measures the funds it holds from profits and issuing **shares**
- The aim is to identify the level of risk associated with lending



Your notes

Moral Hazard

- **Moral Hazard** has increased in the financial sector since 2008 as Governments have stepped in to save individual banks from failure (e.g. RBS)
 - Banks seem to be considered '**too big to fail**' and governments bear the consequences of their risky behaviour
 - The financial sector returned to **questionable practices** within two years: The **China Hustle** documents how investment funds and stockbrokers played up obscure Chinese companies who presented fake financial data
 - This stimulated investor demand, temporarily pushing up prices. Many investors lost a lot of money

Systemic Risk in Financial Markets

- **Systematic failure** is when a minor **local problem** in one country's financial sector has **international consequences**
 - A single bank can trigger the breakdown of an **entire market** or even the **entire financial system**
- Banks may collapse following periods of **low interest rates**, **accessible credit**, and excessive **speculation**
 - This may cause a sudden and steep decline in **asset prices** (e.g., shares or housing) leading to a default on loans
 - This could rapidly escalate into a much more severe international situation
- In 2007, **French bank BNP Paribas** informed depositors that they could not withdraw from two of their funds. The value of the assets in those fund could not be determined
 - Banks then stopped transactions with each other as they could not trust that borrowing could be returned. This caused a freeze in **liquidity** and led to a sudden increase in **interest rates**
 - As a result of this and other causes of the credit crunch, **banks collapsed**. This triggered a global financial crisis and **recession**
 - In some cases, the government and central bank intervened. This helped avert an overall **systemic failure**, but significant economic harm occurred