

Cambridge

IGCSE

Econ

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Section 03

Microeconomic decision makers



Chapter 16

3.16 Money and banking

Forms of money

Most countries use coins, notes, and bank accounts as the main forms of money. Coins are used for small purchases, notes for expensive items, and bank accounts are the primary form of payment. Transfers include direct debits, credit cards, and mobile phones. Bank accounts are not legal tender, but they are preferred by most people and businesses for convenience.

The functions of money

Money carries out four functions.

It acts as a:

- medium of exchange
- store of value
- unit of account
- standard of deferred payments.

Money allows people to buy and sell products. In carrying out this function, money is said to act as a medium of exchange. Products are exchanged for money and that money is used to buy other products.

Products → Money → Products

The characteristics of money

Money does not require intrinsic value, but it must be generally acceptable and in limited supply. It should be durable, portable, divisible, homogeneous, and easily identifiable. For example, silver and bank notes can act as money, but silver is preferred for various purposes. Bank notes have no intrinsic value. Other characteristics include being durable, portable, divisible, homogeneous, and easily identifiable.

Banking

Commercial banks

Commercial banks are also called retail or high street banks. All three names tell us something about them. Commercial indicates that they are business organisations which usually seek to make a profit. Retail suggests that they are selling the public something – in this case banking services. High street tells us that these banks are found in most towns and cities.

KEY TERM

Commercial banks: banks which aim to make a profit by providing a range of banking services to households and firms.



Commercial banks are a familiar sight in towns and cities

The role and importance of commercial banks

Commercial banks serve three main functions: accepting deposits, lending, and enabling customers to make payments. They accept deposits into two types of accounts: current accounts, which allow easy access to money, and deposit accounts, which require notice before withdrawal. Banks offer two main ways of borrowing: overdrafts, which allow customers to spend more than their account limits, and loans, which are usually for specific purposes and periods. Customers may be asked to provide collateral to secure repayment. Banks act as financial intermediaries, accepting deposits from those with more money than they currently want to spend and lending it to those with an immediate desire to spend more. This enables banks to channel money from lenders to borrowers.

Lenders → Banks → Borrowers

Other functions of commercial banks

Commercial banks now offer a variety of services to customers, including foreign currency exchange, document management, will administration, financial advice, insurance, savings accounts, and mortgage loans. They also assist with tax forms, share purchases, insurance, insurance, and mortgage loans.

The aims of commercial banks

A commercial bank's primary goal is to generate profit for shareholders through loans, known as advances. However, liquidity is crucial for meeting customer withdrawal requests. Banks maintain a certain amount of liquid assets, which can be converted into cash quickly and without loss. Balancing profitability and liquidity involves having high-interest assets and low or no interest assets.

KEY TERMS

Liquidity: being able to turn an asset into cash quickly without a loss.

Central bank: a government-owned bank which provides banking services to the government and commercial banks and operates monetary policy.

Islamic finance

Islamic countries prohibit commercial banks from charging interest on loans due to religious reluctance. Traditionally, Islamic banks provided finance to firms in return for profits. Recently, US and European banks have expanded their branches in Islamic countries, employing Islamic sharia scholars for financial product approval.

Central banks

A central bank is the single most important and influential bank in the country or, in the case of the European Union, the region. The five most well-known central banks in the world are probably the Federal Reserve Bank of the USA (often called the Fed), the European Central Bank (ECB), the Bank of England, the Reserve Bank of India and the People's Bank of China. Central banks are owned by governments and are responsible to them.

Role and importance of a central bank

The role a central bank plays in an economy means that it can have a significant impact on households, firms and the performance of the economy. Its functions include:

- Acts as a banker to the government.

Tax revenue is paid into the government's account at the central bank, and payments by the government for goods and services are made out of this account.

- Operates as a banker to the commercial banks.

Holding accounts at the central bank enables commercial banks to settle debts between each other and to draw out cash, if their own customers are taking more cash from their branches than usual.

- Acts as a lender of last resort.

This means it will lend to banks which are temporarily short of cash.

- Manages the national debt.

The national debt is the total amount the government owes. Over time, government debt tends to build up. The central bank carries out borrowing on behalf of the government by issuing government securities, for example government bonds, pays interest on these and repays them when they fall due.

- Holds the country's reserves of foreign currency and gold.

The central bank keeps foreign currency and gold to influence the exchange rate.

- Issues bank notes.

The central bank is responsible for printing notes and destroying notes which are no longer suitable for circulation. It also authorises the minting of coins.

- Implements the government's monetary policy.

The prime aim of this is to keep inflation low and steady. This involves controlling the money supply and influencing interest rates throughout the economy, by changing the interest rate it charges on its loans. The government may instruct the central bank to increase or decrease the money supply.

- Controls the banking system.

Many central banks play a key role in regulating and supervising the banking system.

- Represents the government

at meetings with other central banks and international organisations such as the World Bank and the International Monetary Fund.

Chapter 17

3.17 Households

Spending

People spend in order to buy goods and services and to maintain a given standard of living. Among the main items involving expenditure are food, clothing and footwear, housing, gas, electricity, water, consumer durables, transport, entertainment, and leisure goods and services

Influences on spending

The main influence on the amount spent by a person or household is **disposable income**. As income rises, people usually spend more in total, but less as a percentage of their income.

Among the other factors influencing the amount of expenditure are **wealth**, confidence, the rate of interest, the distribution of income and advances in technology.

Confidence is an important influence on consumption. If people feel more optimistic about their future career prospects and income, they are likely to spend more. In contrast, if they become pessimistic about economic prospects they will tend to spend less. Expenditure may also fall if the **rate of interest** rises.

Income and consumption

People can either spend or save their disposable income, with poor individuals unable to save due to their inability to buy basic necessities. As income increases, people can both spend and save more, but the proportion spent tends to fall.

The proportion of income which people spend is sometimes referred to as the **average propensity to consume (APC)**. It is calculated by dividing **consumption** by disposable income.

KEY TERMS

Disposable income: income after income tax has been deducted and state benefits received.

Wealth: a stock of assets including money held in bank accounts, shares in companies, government bonds, cars and property.

Rate of interest: a charge for borrowing money and a payment for lending money.

Disposable income (\$)	Consumption (\$)	APC
100	120	1.2
200	200	1.0
300	270	0.9
400	320	0.8
500	350	0.7

Table 17.1: The relationship between disposable income and consumption



Fig. 17.1: The relationship between disposable income and consumption

Pattern of expenditure

Different income groups have different spending patterns. The poor spend more on food and clothing than the rich, as they buy a greater variety and quality of food. However, their spending is usually a smaller proportion of their income and total expenditure. The rich spend more on luxury items, consumer durables, entertainment, and services. This difference also occurs between countries, with spending on necessities being higher in poor countries and luxuries being a greater share in rich countries. Spending patterns also vary within income groups, according to household composition, tastes, and age. Households without children tend to spend more on recreation and dining out, while the retired spend more on heating and transportation.

Saving

There are a number of forms of saving. Some forms are contractual. This means that people sign a contract, agreeing to save a certain amount on a regular basis. The main forms of contractual saving are insurance policies and pension schemes.

Reasons for saving

People save for various reasons, including target savers, retirement, children's future, precautionary reasons, and income. Savings can provide comfort during retirement, finance children's education, and help cope with emergencies. Some save to increase current income, as financial institutions reward those who save large amounts. Some save in shares, government bonds, or houses, hoping to benefit from a rise in asset value. Overall, people save for various reasons, including coping with emergencies, increasing income, and securing future financial stability.

Influences on saving

Among the influences on saving we have:

- **Income.** As with consumption, the main influence on saving is disposable income. As disposable income rises, the total amount saved, and the proportion saved (the savings ratio) increases.
- **Wealth.** The wealthier people are, the easier they will find it to save.
- **The rate of interest.** A rise in the rate of interest may reduce some target saving as people can now attain their target amounts by saving less. Overall, it is likely to increase non-contractual saving as it pushes up the reward for saving.
- **The tax treatment of savings.** Tax concessions on the income earned from saving will encourage people to save. In a number of countries there are some tax-free savings schemes where no tax is charged on the interest earned.
- **The range and quality of financial institutions.** The greater the variety of saving opportunities on offer, the more likely people will find a scheme that will suit them.
- **Age structure.** The young and the old tend to save less than middle-aged people. The old, especially the very old, draw on their savings to ensure a reasonable living standard during retirement.
- **Social attitudes.** The attitude to saving varies between countries. In some it is held in high esteem, while in other people prefer to spend most of their income when they receive it.

KEY TERM

Savings ratio:

the proportion of household disposable income that is saved.

Income and saving

Saving is disposable income which is not spent. As already noted, it is not possible to save below a certain income level. As disposable income rises, both the total amount saved and the proportion of disposable income saved increases. Table 17.2, using the same disposable income and consumption figures as in Table 17.1, shows this. The **average propensity to save (APS)** is calculated by dividing saving by disposable income.

Disposable income (\$)	Consumption (\$)	Savings (\$)	APS
100	120	-20	-0.2
200	200	0	0.0
300	270	30	0.1
400	320	60	0.2
500	350	150	0.3

Table 17.2: The relationship between disposable income and saving

At an income of \$500, people save 30% of their disposable income. It is useful to note that APS plus APC add up to 1, since disposable income is either spent or saved. Figure 17. 2 shows the usual relationship between disposable income and saving.

KEY TERM

Average propensity to save (APS): as savings ratio, it is the proportion of household disposable income that is saved.

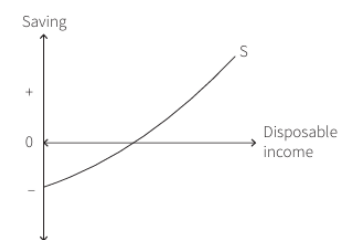


Fig. 17. 2: The relationship between disposable income and saving

Borrowing

Borrowing is a financial strategy where individuals borrow money to meet their needs, such as maintaining living standards, buying a car, or covering healthcare costs. It involves a loan called a mortgage, which is typically repaid when a house is purchased. Borrowing allows people to spend more than their current disposable income, but it comes with a cost in the form of interest. The poor often face greater difficulties in borrowing due to less security and lenders' concerns about their ability to repay loans. Factors affecting borrowing include:

- The availability of loans and overdrafts. The easier it is to borrow, the more likely people are to borrow.
- The rate of interest. A rise in the rate of interest will increase the cost of borrowing, which is likely to reduce borrowing.
- Confidence. The more confident people are about the future, the more they will anticipate earning in the future. They may adjust their spending patterns now, financing some of their extra expenses by borrowing with an expectation that their higher income will enable them to repay their loans.
- Social attitudes. Some countries and some groups within countries are more concerned about the risks of people getting into debt by borrowing, than others

Chapter 18

3.18 Workers

Factors that influence an individual's choice of occupation

Wage

An important influence on what jobs a person decides to do, is the pay on offer. The total pay a person receives is known as his **earnings**. In addition to the basic wage, earnings may also include overtime pay, bonuses and commission.

Wages

Wages, also known as pay or salaries, are a crucial factor in determining job satisfaction. A higher **wage rate** attracts more people to work, making a job more attractive. Wages can be based on time rate or piece rate systems, which benefit employers and workers by allowing them to estimate labor costs and bargain collectively. However, time rate systems do not reward hard work and may not be suitable for services like medicine, as they may focus on quantity at the expense of quality and health.

Overtime pays.

Overtime pay is paid to workers who work beyond the standard working week, usually at a higher rate. It benefits both employees and employers, especially those with young families. Employers can respond to higher demand without hiring new workers, and reducing overtime is easier, less costly, and less disruptive than sacking workers. However, workers may become tired and produce less output.

Bonuses

Bonuses are extra payments given to workers who exceed standard amounts, complete projects on time, secure profitable contracts, or contribute to higher profits. They can motivate high-quality output and retention. However, fairness in bonus awards can lead to resentment and demotivation, potentially causing resignation. Those with confidence in their abilities may be attracted to bonuses, especially in financial sectors like merchant banking.

Commission

Commission is often paid to the salespeople. It involves them receiving a proportion of the value of the sales they make. Sometimes, this is in addition to a standard wage and sometimes it makes up their total payment.

Non-wage factors

People do not always choose the highest paid job on offer. They take into account a range of other factors including job satisfaction, type of work, working conditions, working hours, holidays, pensions, fringe benefits, job security, career prospects, size of firm and location.

Job satisfaction

Nursing and teaching are not well-paid but offer high job satisfaction due to improving health and educating students. High-paying jobs like brain surgeons, TV presenters, and football players also provide high satisfaction.

Type of work

Most people prefer non-manual work due to its physical and mental stimulation, better pay, and high status. Some are prepared for dangerous work, but most prefer a safe environment, unlike those in dangerous fields like deep sea diving and bomb disposal.

Working conditions

Working conditions are an important determining factor. People like to work in pleasant surroundings, with friendly colleagues and enjoying regular breaks

Working hours

Occupations vary in terms of working hours and timing, with managers and senior officials working longer hours. Some occupations offer part-time work or flexible hours, depending on the employer or the worker. Nurses, emergency plumbers, and catering staff often work unsociable hours, often working at night or in the evening. Some workers work in shifts, varying from day and night to three eight-hour shifts.

KEY TERMS

Earnings: the total pay received by a worker.

Wage rate: a payment which an employer contracts to pay a worker. It is the basic wage a worker receives per unit of time or unit of output.

Holidays

In a number of countries, the law sets down a minimum length of holiday entitlement for full-time workers. Even in these countries, however, the length of holidays varies. Teaching is one occupation, well known for the length of holidays on offer

Pensions

With people living longer in most countries, occupational pensions are becoming an important influence. There is considerable variation in the provision of occupational pensions. Some jobs provide their workers with generous pensions, whilst others do not provide any financial help post retirement.

Fringe benefits

Fringe benefits are the extra benefits provided to workers by their employers. These may include free or subsidised meals, health schemes, and social and leisure facilities. Playing for a major football club, such as Real Madrid or Manchester United, will bring a wide range of fringe benefits.

Job security

Many workers are attracted by occupations which offer a relatively high degree of job security. A high degree of job security means that workers are unlikely to be made redundant. Such a situation is more likely to occur in occupations where there is a high demand for the product and workers are given long-term contracts

Career prospects

People are often prepared to accept low wages at the start of their careers, if they think there is a good possibility that they will gain promotion to a well-paid and interesting post. Trainee accountants, barristers and doctors are not usually highly paid and often work for long hours at the beginning of their careers.

Size of the firms

People are often attracted to jobs in large firms and organisations. This is because such firms and organisations often pay more and offer better career prospects, job security and fringe benefits than smaller ones

Location

People may choose an occupation which is close to their home. This will mean that they do not have to spend much money or time on travelling to and from work

Limiting factors

Most people would obviously like a well-paid, satisfying job with good working conditions, long holidays, generous fringe benefits, good career prospects and a convenient location.

Occupational choice and opportunity cost

Choosing to take up one occupation involves rejecting other occupations. Workers have to decide what is important to them. A worker may be prepared to give up a well-paid job, or the opportunity to undertake such as job, in favour of a less well-paid job that offers more job satisfaction.

Wage determination and the reasons for differences in earnings

The key factors that determine the amount of pay received by workers and why some workers earn more than others are the demand for and supply of their labour. Other influencing factors include the relative bargaining power of employers and workers, government policies, public opinion and discrimination.

Demand and supply

The higher the demand for and the lower the supply of workers in an occupation, the higher the pay is likely to be. Figure 18.1 shows the markets for doctors and for cleaners.

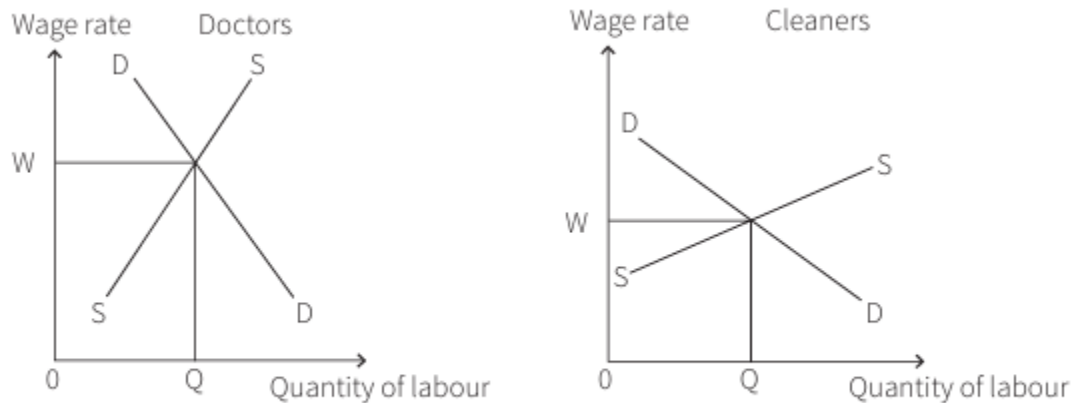


Fig. 18.1: The market for doctors and cleaners

The supply of cleaners is often high due to the low demand and high pay, as cleaning jobs don't require qualifications or special skills. Unskilled workers are generally paid less, and the demand for skilled workers is high due to the quantity and quality of output produced. Skilled workers are generally highly productive, but the supply is usually lower. Some workers, like steeplejacks, are well-paid due to a limited supply. The supply of workers in the agricultural and manufacturing sectors varies, with some countries having a surplus of agricultural workers, resulting in lower wages. The demand and supply of workers in the private and public sectors also vary, with some countries experiencing expansion and others contracting.

Relative bargaining power of employers and workers

Wages are typically higher in occupations with strong bargaining power, particularly when workers are members of a trade union or professional organization. This bargaining position is strengthened by the knowledge that they are difficult to replace and have serious consequences. Conversely, cleaners and waiters are less organized and can be replaced easily.

Public sector workers also tend to be affected by government labour market policies more than their counterparts in the private sector. These policies may or may not raise wages. A government is, for example, likely to ensure that all its workers are paid at, or above, a **national minimum wage (NMW)**, whereas some private sector firms may seek to find ways round such legislation.

Government policies

Government policies impact wages in various ways, including public and private sector wages. These policies promote economic growth and increase demand for labor. Specific policies, such as a national minimum wage (NMW), can impact specific occupations, such as car drivers. However, NMW must be set above the market equilibrium wage rate, which may cause unemployment. Some economists argue that higher wages can raise workers' motivation and productivity, leading to increased demand for labor. Overall, government policies play a crucial role in shaping wages and employment.

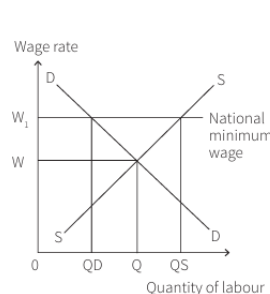


Fig. 18.2: A national minimum wage causing unemployment

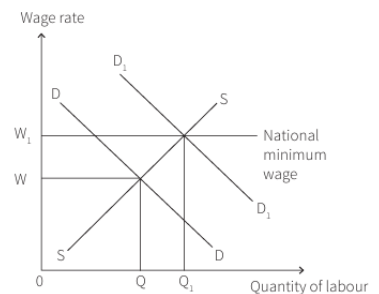


Fig. 18.3: A national minimum wage with rising employment

The introduction of a NMW may provoke some workers, who were previously being paid a wage at or just above that level, to press for a wage rise to maintain their **wage differential**.

Public opinion

Public opinion influences wage rates for occupations involving long periods of study and training. Different countries have different perceptions of certain occupations, such as engineers in Scandinavian countries and doctors and nurses in the UK. Workers' wage claims can also influence wage rates, with firefighters seeking equivalent pay increases to police. Public opinion can also pressure governments to revise wages for public sector workers, such as nurses, due to social attitudes against working women and limited employment opportunities.

KEY TERM

Wage differential:
the difference in wages.

Discrimination

Discrimination occurs when a group of workers is treated unfavourably in terms of employment, the wage rate, the training received and/or promotional opportunities. For example, some employers may be reluctant to have female workers. The lower demand will result in lower pay, as shown in Figure 18.4.

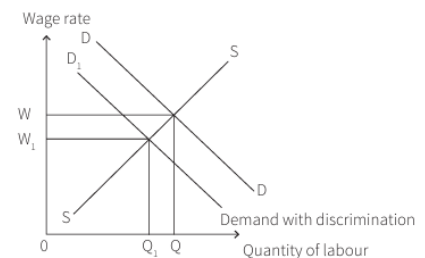


Fig. 18.4: The effect of discrimination

women tend to be less well qualified than men, but this is changing in a number of countries, with more women now going to university than men

- They tend to be more heavily concentrated in low-paid occupations
- They are less likely to belong to trade unions and professional organisations
- They are still discriminated against

Why earnings of occupations change over time

Change in demand and supply of labour

The main reason for a rise or, less commonly, fall in earnings is a change in demand and/or supply of labour. Other reasons include changes in the stages of production, in bargaining power, changes in government policies and changes in public opinion.

Changes in the demand for labour

If demand for labour increases, earnings are likely to rise. The wage rate may be pushed up and bonuses increased. In addition, more overtime may become available and it may be paid at a higher rate too. Figure 18.5 shows the wage rate for bricklayers being driven up by an increase in demand for their labour.

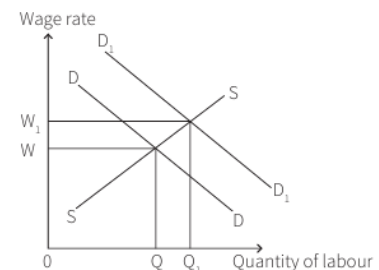


Fig. 18.5: The effect of an increase in the demand for bricklayers' labour

What can cause demand for labour to increase? There are three main causes:

- An increased demand for the product. Demand for labour is a derived demand. The higher the demand for products, the greater is the number of workers employed.
- A rise in labour productivity. Higher productivity increases the return from hiring workers.
- A rise in the price of capital. In some occupations, it is possible to substitute labour for capital in the production process.

Changes in the supply of labour

A decrease in the supply of labour for a particular occupation or sector would be expected to raise the wage rate. Among the factors that could cause a decrease in the supply of workers are:

- A fall in the labour force. If there are fewer workers, in general, it is likely that an individual business will find it more difficult to recruit workers.
- A rise in the qualifications or length of training required to do the job. This will reduce the number of people eligible for the job.
- A reduction in the non-wage benefits of a job.
- A rise in the wage or non-wage benefits in other jobs. Such a change would encourage some workers to switch from one occupation to another.

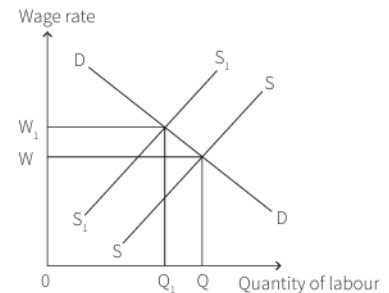


Fig. 18.6: The effect of a decrease in the supply of accountants' labour

Changes in the stages of production

People working in the **primary sector** are usually less well-paid than those who work in **secondary** and **tertiary sectors**. This is because the workers in the primary sector tend to be less skilled and have fewer qualifications. In addition, as an economy develops, the demand for primary sector workers usually declines.

Changes in bargaining power

A change in unions' bargaining power or willingness to take industrial action can affect earnings.

Changes in government policy

- Raising the national minimum wage will increase the pay of low-paid workers.
- Despite the rise in supply, improved education may actually raise the wages of skilled workers, as it may increase their demand more than the supply. This is because employing more skilled workers should reduce costs of production and increase international competitiveness.
- Government policies on immigration can also affect wages. Making it easier for foreign people to live and work in the country should increase the supply of labour.
- The introduction of government anti-discrimination laws may help to increase the career prospects and wages of disadvantaged groups. Such legislation works, in part, by changing public opinion.
- Advances in technology can alter wage rates. In some cases, it can put downward pressure on wage rates by reducing demand for workers.

KEY TERMS

Primary sector:

covers agriculture, fishing, forestry, mining and other industries which extract natural resources.

Secondary sector:

covers manufacturing and construction industries.

Tertiary sector:

covers industries which provide services.

Changes in public opinion

Over time, how occupations and those who undertake them are viewed can change. For instance, one possible reason why the relative pay of journalists has fallen in the USA in recent years is a decline in the regard the occupation is held in. In contrast, the pay and job opportunities for women is increasing in Saudi Arabia where social attitudes about women working are changing.

Changes in the earnings of individuals over time

Earnings increase as workers age due to increased skill and productivity. This can lead to promotions and higher pay. However, earnings may fall as workers transition to less demanding work or switch employers. Financial difficulties may also impact earnings, as the company may reduce wages and cut bonuses.

The extent to which earnings change

The magnitude of the change in the wage rate due to a change in demand for, or supply of, labour is influenced not only by the size of the change, but also by the elasticity of demand for labour and the elasticity of supply of labour.

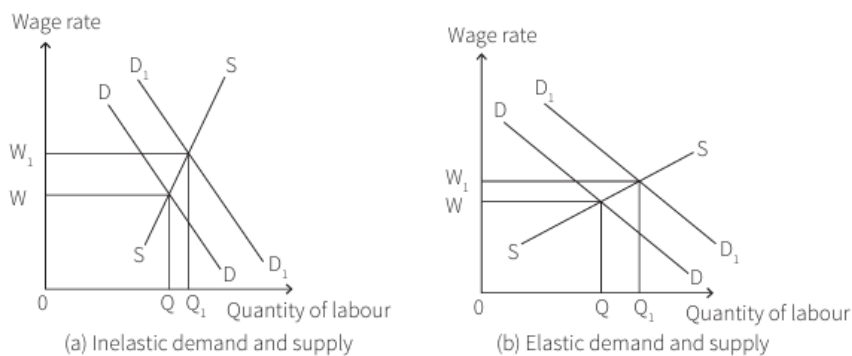


Fig. 18.7: The influence of elasticity on the effect of an increase in demand for labour

KEY TERMS

Elasticity of demand for labour: a measure of the responsiveness of demand for labour to a change in the wage rate.

Elasticity of supply of labour: a measure of the responsiveness of the supply of labour to a change in the wage rate.

The main determinants of elasticity of demand for labour are:

The proportion of labour costs in total costs.

If labour costs form a large proportion of total costs, a change in wages would have a significant impact on costs and hence demand would be elastic

The ease with which labour can be substituted by capital. If it is easy to replace workers with machines, demand would again be elastic

The elasticity of demand for the product produced. A rise in wages increases costs of production which, in turn, raises the price of the product. This causes demand for the product to contract and demand for labour to fall.

The time period. Demand for labour is usually more elastic in the long run as there is more time for firms to change their methods of production

The qualifications and skills required. The more qualifications and skills needed, the more inelastic supply will be.

The length of training period. A long period of training may put some people off the occupation. It will also mean that there will be a delay before those who are willing to take it up are fully qualified to join the labour force. Both effects make the supply of labour inelastic.

The level of employment. If most workers are employed already, the supply of labour to any particular occupation is likely to be inelastic.

The mobility of labour. The easier workers find it to change jobs, or to move from one area to another, the easier it will be for an employer to recruit more labour by raising the wage rate. Thus, higher mobility makes the supply elastic

The degree of vocation. The stronger the attachment of workers to their jobs, the more inelastic supply tends to be in case of a decrease in wage rate.

The time period. As with demand, supply of labour tends to become more elastic over time.

Specialization and division of labour

Specialisation means the concentration on particular products or tasks. Instead of making a wide range of products, a firm may specialise in manufacture of one or a few products. A doctor may concentrate on treating patients with heart problems, rather than on treatment of patients suffering from a number of illnesses.

KEY TERM

Specialisation: the concentration on particular products or tasks.

Division of labour occurs when workers specialise. Instead of producing the whole good or service, a worker carries out one particular task. The key advantage claimed for specialisation of workers is lower cost per unit produced. There are a number of reasons why this may occur.

Workers can specialize in their best tasks, leading to increased output and faster training. This can save time and simplify the production process. However, specialisation does not guarantee reduced unit costs; it may result in higher unit costs and increased boredom. Specialized workers may also take more days off due to sickness and longer work hours. Despite these drawbacks, specialized workers can become highly skilled and earn high wages. However, they may face challenges in securing other jobs if their skills are limited. The benefits of specialization depend on the impact on production costs and product quality. If it leads to lower production costs and higher quality, the economy may benefit from increased production and export of goods and services.

KEY TERM

Division of labour: workers specialising in particular tasks.

Chapter 19

3.19 Trade unions

Types of trade unions

Trade unions are associations of workers formed to represent their interests and improve their pay and working conditions. There are four main types of trade unions. These are:

- **Craft unions.** These represent workers with particular skills, for example plumbers and weavers. These workers may be employed in a number of industries.
- **General unions.** These unions include workers with a range of skills and from a range of industries.
- **Industrial unions.** These seek to represent all the workers in a particular industry, for example, those in the rail industry.
- **White collar unions.** These unions represent particular professions, including pilots and teachers

The role of the trade unions

Trade unions negotiate wages, job security, working hours, and conditions on behalf of their members, focusing on basic pay, overtime, health, safety, promotion prospects, and job security. They provide information on pensions, education, training, and participate in measures to increase demand for labor. Some unions offer benefits like strike pay and legal advice.

Collective bargaining

An individual worker may not have the skill, time or willingness to negotiate with her or his employer. A worker is also likely to have limited bargaining power. If she, or he, presses for a wage rise or an improvement in working conditions, the employer may be able to dismiss her, or him, and take on someone as a replacement. Trade unions enable workers to press their claims through **collective bargaining**.

KEY TERM

Trade union: an association which represents the interests of a group of workers.

The basis of wage claims

There are a number of arguments a trade union can put forward while asking for a wage rise

- One is that the workers deserve to be paid more because they have been working harder and have increased productivity.
- Another argument is that an industry whose profits have risen can afford to pay higher wages to its workers.
- A third argument is known as the comparability argument. A union may argue that the workers it represents, should receive a pay rise to keep their pay in line with similar workers.
- A fourth argument that is often put forward is that workers need a wage rise to meet the increased cost of living. If the price level is rising by 6%, workers will need a wage rise of at least 6% to maintain their wage's purchasing power. This is sometimes referred to as maintaining their **real income**

KEY TERM

Collective bargaining: representatives of workers negotiating with employers' associations.

Factors affecting the strength of a trade union

- **A high level of economic activity.** If output and income in a country are increasing, most industries are likely to be doing well, and so should be able to improve the pay and conditions of workers. When output reaches high levels and most people who want to work are employed, firms will be competing for workers.
- **A high number of members.** The more members a union has, the more funds it is likely to have to finance its activities. Also, the employers will find it difficult to replace union labour by non-union labour in such a scenario.
- **A high level of skill.** Unions representing skilled workers are in a relatively strong position, as it can be difficult to replace their workers with other skilled workers and expensive to train unskilled workers
- **A consistent demand for the product produced by the workers.** Unions that represent workers making goods and services that are essential to consumers are in a strong position to bargain.
- **Favourable government legislation.** A union will be in a stronger position if laws allow trade unions to take industrial action.

Industrial action

If negotiations break down on wage claims, or disputes occur over working conditions, there is a range of **industrial actions** that can be initiated by a union in support of its claim. There could be an overtime ban, with workers refusing to work longer than their contracted hours. Workers may also 'work to rule'. This involves workers undertaking the tasks required by their contracts only.

KEY TERM

Real income: income adjusted for inflation.

The most well-known form of industrial action, however, is a **strike**. This involves workers withdrawing their labour.

Strike action can be measured in three main ways. These are:

- The number of strikes
- The number of workers involved
- The number of working days lost.

Influence on the supply of labour

Besides negotiating and taking industrial action, trade unions can seek to raise the wages of its members by restricting the entry of new workers into the industry, occupation or craft. Unions may seek to do this by insisting that new recruits have high qualifications or may operate a closed shop.

KEY TERMS

Industrial action: when workers disrupt production to put pressure on employers to agree to their demands.

Strike: a group of workers stopping work to put pressure on an employer to agree to their demands.

Advantages and disadvantages of trade union membership

Firms and workers

Firms can be harmed by industrial action undertaken by trade unions. The amount of revenue lost and damage done to the reputation of a particular firm by a strike will be influenced by the effect on rival firms and the length of the strike. A firm's costs and flexibility will also be adversely affected by overtime bans and 'work to rule' action.

Trade unions and the government

Trade unions play a significant role in various countries, with some being illegal and others restricting their effectiveness. Mauritius has a high percentage of union membership, with around 20% of workers in a union. European countries like Finland and Sweden have strong union membership. UK union membership fell in the 1980s and 1990s due to reduced rights and increased unemployment. However, membership has grown among women workers and public sector workers. France has one of the lowest union densities in Europe, but its unions exert considerable power due to public support, strike action, and French laws securing their role.

Chapter 20

3.20 Firms

Classification of firms

Industries consist of firms producing the same product, such as the car **industry** with major car firms like Volvo, General Motors, and Toyota. Firms can have multiple plants, owning them or having multiple plants worldwide. They can be classified by production stage, ownership, and size.

The stages of production

Industries and their firms and plants operate at different stages of production.

The **primary sector** is the first stage of production. It includes industries, such as agriculture, coal mining and forestry, involved in the extraction and collection of raw materials.

The **secondary sector** is involved with the processing of raw materials into semi-finished and finished goods – both capital and consumer goods.

The third stage of production is called the **tertiary sector**. Industries producing services such as banking, insurance and tourism, come into this sector

Some economists identify a fourth sector also, the **quaternary sector**. This is really a sub-section of the tertiary sector

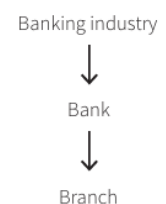


Fig. 20.1: Production in the banking industry

Country/ Region	Primary %	Secondary %	Tertiary %
Pakistan	21	20	59
India	17	30	53
China	8	41	51
USA	1	19	80
Hong Kong	0	7	93

Table 20.1: Percentage contribution to selected countries' output by different industrial sectors

KEY TERMS

Industry: a group of firms producing the same product.

The quaternary sector: covers service industries that are knowledge based.

Ownership of firms

In a market economic system, most firms are in the private sector, whereas in a planned economy, they are in the public sector (state-owned enterprises). In a mixed economic system, they are in both the private and public sectors.

The size of firms

There are three main measures of the size of a firm. These are the number of workers employed, the value of the output it produces and the value of the financial capital it employs.

The age of the firms. Most firms start small. Every year new firms are set up, but not all of them survive. Those that do, may take some time to grow in size.

The availability of financial capital. The more financial capital a firm has to draw on to finance its expansion, the larger it is capable of growing.

The type of business organisation. Multinational companies (MNCs) are larger than, for instance, a shop owned by one person. Private sector MNCs can use retained profits, borrow and sell shares to raise the finance to expand

Internal economies and diseconomies of scale .If a firm is experiencing lower average costs as it expands, it can lower the price for its products and capture more market share.

The size of the market. This is the key factor in determining the size of a firm. If there is a large demand for the product, it is possible for a firm to grow to a large size.

Small firms

Despite the benefits of growth, a large proportion of the firms in any country are small. There are a number of reasons for this.

The small size of the market. As suggested earlier, this is probably the key influence. If demand for the product is small, a firm producing it cannot be large. Demand for very expensive items, such as luxury yachts, may be small as it may be for individually designed items, such as designer dresses and suits and for repair work

Preference of consumers. For some personal services, such as hairdressing, consumers prefer small firms. Such firms can cater to their individual requirements and can provide a friendlier and more personal service.

Owner's preference. The owner (or owners) of a firm may not want it to grow. People who own and run firms have various motives.

Flexibility. Despite the advantages of large firms, small firms may survive because they may be able to adjust to changes in market conditions more quickly

Technical factors. In some industries, little or no capital is needed. This makes it easy for new firms to set up. It also means that technical economies of scale are not important and small firms do not suffer a cost disadvantage

Lack of financial capital. Some firms may want to expand but they may lack the finance required to do so. As mentioned above, it may be difficult for sole traders to raise financial capital

Location. If a product is relatively heavy in relation to its value, transport costs can form a high proportion of total costs. This can lead to emergence of local rather than national markets, and such markets can be supplied by small firms

Cooperation between small firms. For example, small farmers may join together to buy seeds, foodstuffs and equipment such as combine harvesters.

Specialization. Small firms may supply specialist products to, and distribute the products of, larger firms. For instance, a relatively small firm may provide training services for a large accountancy firm

Government support. Governments in many countries provide financial help and advice to small firms.

Causes of the growth of firms

There are two ways a firm can increase in size. One is called **internal growth**. This is also sometimes referred to as natural or organic growth.

The other way through which a firm can grow is through **external growth**. This involves the firm joining with another firm/firms to form one firm through a merger or a takeover. The three main types of merger are a **horizontal merger**, a **vertical merger** and a **conglomerate merger**

Mergers

Horizontal mergers

A horizontal merger involves two firms producing the same product at the same stage of production, aiming to take advantage of economies of scale and increase market share. It can also lead to **rationalization** by selling off redundant resources and saving on managerial staff. However, there are risks such as diseconomies of scale, difficulty in control, and integration difficulties if the firms had different management structures or were located far apart.

Vertical merger

A vertical merger occurs when a firm merges with another firm involved with the production of the same product, but at a different stage of production. It can take the form of vertical merger backwards or vertical merger forwards

Vertical merger backwards is when a firm merges with a firm that is the source of its supply of raw materials, components or the products it sells. For example, a supermarket chain may take over a bakery and a tyre manufacturer merge with a producer of rubber. The main motive behind such a merger is to ensure an adequate supply of good quality raw materials at a reasonable price

KEY TERMS

Internal growth: an increase in the size of a firm resulting from it enlarging existing plants or opening new ones.

External growth: an increase in the size of a firm resulting from it merging or taking over another firm.

Horizontal merger: the merger of firms producing the same product and at the same stage of production.

Vertical merger: the merger of one firm with another firm that either provides an outlet for its products or supplies it with raw materials, components or the products it sells.

Conglomerate merger: a merger between firms producing different products.

Rationalisation: eliminating unnecessary equipment and plant to make a firm more efficient.

Vertical merger forwards is when a firm merges with, or takes over, a market outlet. For instance, an oil company may buy a chain of petrol stations and an airline may merge with a tour operator.

Conglomerate merger

A conglomerate merger involves the merger of two firms making different products.

The effect of a merger on consumers

A merger can bring advantages and disadvantages to consumers. If it leads to greater economies of scale, consumers may enjoy lower prices. They may also benefit from high quality products and innovation, if the merger increases the efficiency of the firm.

KEY TERMS

Vertical merger backwards: a merger with a firm at an earlier stage of the supply chain.

Vertical merger forwards: a merger with a firm at a later stage of the supply chain.

Economies and diseconomies of scale

The meaning of economies of scale

Economies of scale are the advantages, in the form of lower long run average costs (LRAC), of producing on a larger scale. When economists and entrepreneurs talk about economies of scale, they are usually referring to **internal economies of scale**

The other type of economies of scale are **external economies of scale**. These are the advantages available to all the firms in an industry, resulting from the growth of the industry.

The meaning of diseconomies of scale

Diseconomies of scale are essentially the disadvantages of 'being too large'. A firm that increases its scale of operation to a point where it encounters rising long run average costs is said to be experiencing **internal diseconomies of scale**. **External diseconomies of scale** arise from an industry being too large, causing the firms within the industry to experience higher long run average costs.

Internal economies and diseconomies of scale

The L-shaped LRAC curve shows that average costs change with a firm's scale of operation, with the U-shaped curve showing initial decline, optimum point, and then rise. In capital-intensive industries, average costs may fall over a wide range.

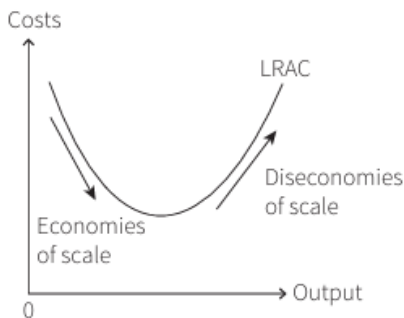


Fig. 20.2: Internal economies and diseconomies of scale

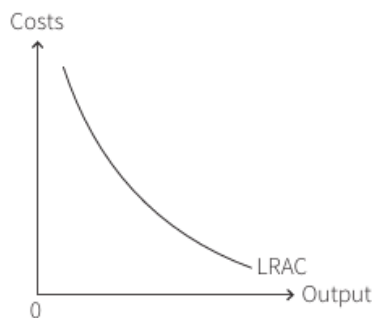


Fig. 20.3: Downward-sloping LRAC curve

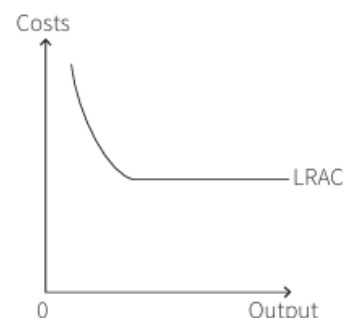


Fig. 20.4: L-shaped LRAC curve

External economies and diseconomies of scale

External economies of scale reduce a firm's average costs by changing its industry's output, while external diseconomies of scale increase it at every output level, resulting in a downward shift in the firm's LRAC curve.

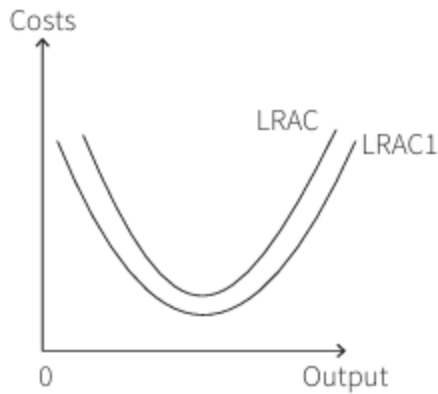


Fig. 20.5: The effect of external economies of scale

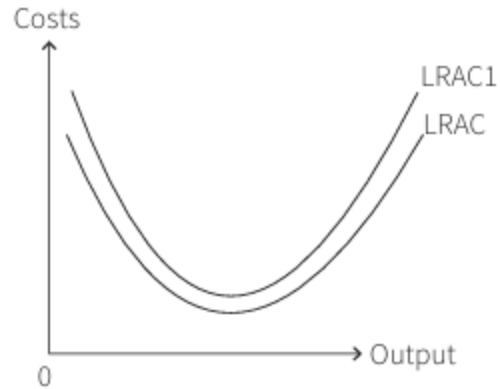


Fig. 20.6: The effect of external diseconomies of scale

Types of internal economies of scale

As a firm increases its scale of operation, there are a number of reasons responsible for a decline in its average cost. These include:

Buying economies. These are probably the best-known type. Large firms that buy raw materials in bulk and place large orders for capital equipment usually receive a discount. This means that they pay less for each item purchased.

Selling economies. The total cost of processing orders, packing the goods and transporting them does not rise in line with the number of orders

Managerial economies. Large firms can afford to employ specialist staff in key posts as they can spread their pay over a high number of units.

Labour economics: Large firms can engage in division of labour among their other staff.

Financial economies. Large firms usually find it easier and cheaper to raise finance. Banks tend to be more willing to lend to large firms because such firms are well-known and have valuable assets to offer as collateral

Technical economies. The larger the output of a firm, the more viable it becomes to use large, technologically advanced machinery. Such machinery is likely to be efficient, producing output at a lower average cost than small firms.

Research and development economies. A large firm can have a research and development department, since running such a department can reduce average costs by developing more efficient methods of production and raise total revenue by developing new products.

Risk bearing economies. Larger firms usually produce a range of products. This enables them to spread the risks of trading

Internal diseconomies of scale

Growing beyond a certain output can cause a firm's average costs to rise. This is because a firm may encounter a number of problems including:

Difficulties controlling the firm. It can be hard for those managing a large firm to supervise everything that is happening in the business. Management becomes more complex. A number of layers of management may be needed and there may be a need for more meetings

Communication problems. It can be difficult to ensure that everyone in a large firm has full knowledge about their duties and available opportunities, such as training etc.

Poor industrial relations. Large firms may be at a greater risk from a lack of motivation of workers, strikes and other industrial action.

External economies of scale

A larger industry can enable the firms in that industry to reduce their average costs in a number of ways including developing.

A skilled labour force. A firm can recruit workers who have been trained by other firms in the industry.

A good reputation. An area can gain a reputation for a high quality production

Specialist suppliers of raw materials and capital goods. When an industry becomes large enough, it can become worthwhile for other industries, called ancillary industries, to set up providing for the needs of the industry.

Specialist services. Universities and colleges may run courses for workers in large industries and banks, and transport firms may provide services specially designed to meet the particular needs of firms in the industry.

Specialist markets. Some large industries have specialist selling places and arrangements such as corn exchanges and insurance markets.

Improved infrastructure. The growth of an industry may encourage a government and private sector firms to provide better road links and electricity supplies, build new airports and develop dock facilities.

External diseconomies of scale

An industry's growth can lead to increased transport congestion, longer journey times, higher costs, and reduced productivity. Additionally, increased competition for resources may push up key site prices, capital equipment, and labor prices.

Chapter 21

3.21 Firms and production

Demand for factors of production

What factors of production are employed

Factors of production are influenced by the product type, productivity, and cost. When substitutes, a rise in productivity or a fall in cost may change the combination of resources employed. Conversely, when complements, a fall in one factor may increase the employment of all factors in a firm. For example, a lower aircraft price may increase the number of pilots, cabin crew, and airport slots.

Altering factors of production

Firms can change resource quantities by adjusting certain factors, such as factory size or output reduction. However, changing labor quantity is easier, as it can be altered by changing overtime or raw material orders. The speed of these

changes depends on contract length and spare capacity availability in firms producing the goods. In the short run, expansion or reduction may take time.

Combining the factors of production

The right combination of production factors is crucial for businesses to achieve maximum productivity. For instance, a hairdressing salon with ten hairdryers and two hairdressers or a farmer with a large land and few cattle would not be efficient. The optimal number of workers with five machines is seven, as output per worker is highest.

Factors influencing demand for capital goods

Among the key factors influencing demand for capital goods are the price of capital goods, price of other factors of production, profit levels, corporation tax, income, interest rates, confidence levels and advances in technology.

Demand for land

Productivity influences land demand, with fertile land receiving higher rent. City centre sites attract high-traffic businesses, pushing rent higher. Water demand is increasing due to increased demand for domestic, agricultural, industrial, and energy production. As countries become richer, they make heavier demands on scarce supplies, with global water use increasing six times in the past century and predicted to double again by 2050.

Factors of production and sectors of production

The demand for production factors changes with an economy's industrial structure, with resources shifting from low-cost manufacturing to higher value-added manufacturing and finally to the service sector. India's service sector, accounting for 63% of global output in 2016, demonstrates this pattern. Different industries use different factors of production.

Labour-intensive or capital-intensive production

There are a number of reasons why some producers use labour-intensive methods of production. One is that there is a large supply of labour in the country, making labour relatively cheap.

Small producers may not benefit from capital equipment, preferring handmade products due to perceived higher quality and individual needs. Custom-made products also offer status and personalized attention. Relying more on labor offers flexibility, small adjustments to the labor force size, and feedback on improving production methods and product quality. However, consumers may be willing to pay higher prices for handmade products.

Production and productivity

Production and productivity are interconnected, but they are not equivalent. Increased output per worker hour and consistent working hours lead to increased production. Unemployment can increase productivity, as skilled workers may retain jobs. Economic development, technology advancements, and education can boost productivity, leading to increased output.

Chapter 22

3.22 Firms, costs, revenue and objectives

Calculating the costs of production

Total and average total cost

Total cost (TC), as its name implies, is the total cost of producing a given output. The more the output is produced, the higher the total cost of production. Producing more units requires the use of more resources. **Average total cost (ATC)** is also referred to as average cost (AC), or unit cost, and is given as total cost divided by output.

Output	Total cost (\$)	Average total cost (4)
0	10	–
1	30	30
2	48	24
3	60	20
4	88	22
5	125	25

Table 22.1: Total and average cost

Fixed costs

Table 22.1 indicates that there is a cost even when output is zero. In the short run, some factors of production are in fixed supply. When a firm changes its output, the costs of these factors remain unchanged – they are fixed costs (FC).

Figure 22.1 shows that total fixed cost (TFC) remains unchanged as output changes. Fixed costs are also sometimes referred to as overheads or indirect costs

Average fixed cost

Average fixed cost (AFC) is total fixed cost divided by output. As total fixed cost is constant, a higher output will reduce average fixed cost. Table 22.2 and Figure 22.2 show how the average fixed cost falls as output increases.

Output	Total fixed cost (\$)	Average fixed cost (\$)
0	10	–
1	10	10
2	10	5
3	10	3.33
4	10	2.5
5	10	2

Table 22.2: Average fixed cost

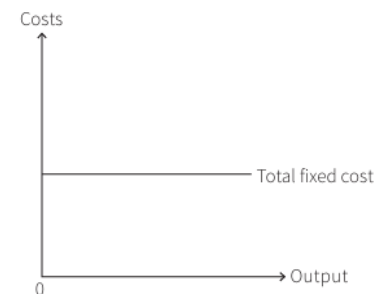


Fig. 22.1: Total fixed cost

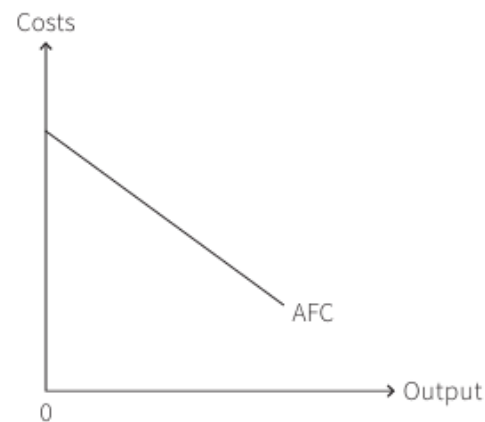


Fig. 22.2: Average fixed cost

Variable costs

Variable costs (VC), also sometimes called direct costs, are the costs of the variable factors. They vary directly as output changes. Production and sale of more cars will involve an increased expenditure on component parts, electricity, wages and transport for a car firm

As output increases, total variable cost rises. It usually tends to rise slowly at first and then rise more rapidly. This is because productivity often rises at first and then begins to decline after a certain output. Figure 22.3 shows the change of total variable cost (TVC) with output.

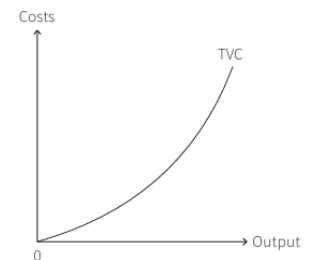


Fig. 22.3: Total variable cost

Average variable cost

Output Average variable cost (AVC) is total variable cost divided by output. As output increases in the short run, average variable cost tends to fall and then rise. This is for the same reason which accounts for an increase in total variable cost at different rates with increase in output. Table 22.3 and Figure 22.4 show the change in average variable cost with output

Output	Total variable cost (\$)	Average variable cost (\$)
1	40	40
2	70	35
3	90	30
4	120	30
5	175	35

Table 22.3: Average variable cost

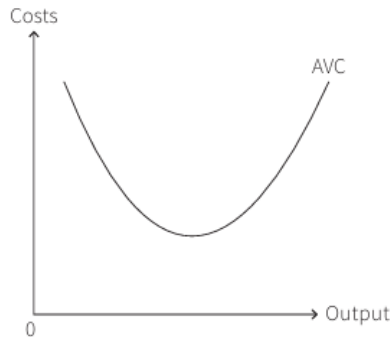


Fig. 22.4: Average variable cost

KEY TERMS

Average fixed cost: total fixed cost divided by output.

Variable costs: costs that change with output.

KEY TERM

Average variable cost: total variable cost divided by output.

Fixed and variable costs

In practice, it is not always easy to decide whether a cost is fixed or variable. This is particularly true of payments to workers. It is clear that overtime payments and the wages of temporary workers are variable costs as they vary directly with output. The basic wage or salary paid to workers, however, may be regarded as a fixed cost since it has to be paid irrespective of the amount of output.

In the long run, however, all costs are variable. This is because all factors of production can be altered, if sufficient time is available. For instance, a firm can increase the size of its factory, office or farm. Therefore, its rent and business rates would rise and it can hire more workers, pushing up the wage bill. Figure 22.6 shows total cost in the long run.

Average total cost

In the short run, average cost consists of average fixed cost and average variable cost. The shape of the short run average cost curve is usually U-shaped. The long run average cost curve is also usually U-shaped.

Calculating revenue

The money received by firms from selling their products is referred to as revenue. Total revenue is, as its name suggests, the total amount of money received by firms through the sale of their products. Average revenue is found by dividing total revenue by the quantity sold and is the same as **price**.

In very competitive markets each firm's output may have no effect on price. In this case, total revenue rises consistently as more quantity is sold. Table 22.4 shows the change of total revenue with sales.

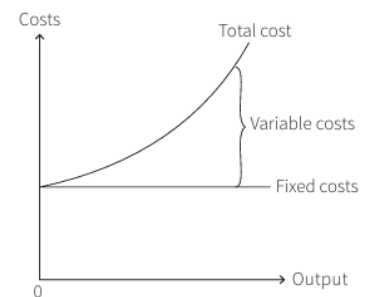


Fig. 22.5: The composition of total cost

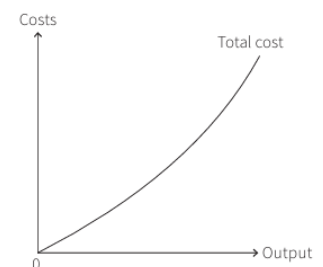


Fig. 22.6: Long-term total cost

KEY TERM

Price: the amount of money that has to be given to obtain a product.

Quantity sold	Average revenue (price per unit) (\$)	Total revenue (\$)
1	10	10
2	10	20
3	10	30
4	10	40
5	10	50
6	10	60
7	10	70

Table 22.4: Average and total revenue of a perfectly competitive firm

Figure 22.7 shows the same information graphically.

Figure 22.7 shows the same information graphically.

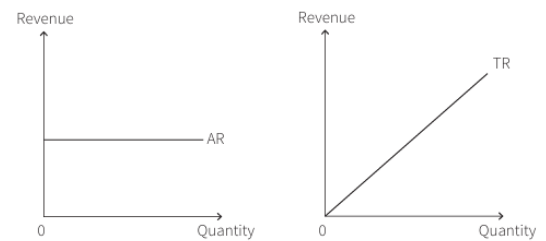


Fig. 22.7: The average and total revenue curves of a perfectly competitive firm

In most markets, however, firms are price makers and need to lower price to sell more. Table 22.5 and Figure 22.8 illustrate the change in **total revenue** and **average revenue** in a monopoly market.

Quantity sold	Average revenue (price per unit) (\$)	Total revenue (\$)
1	10	10
2	9	18
3	8	24
4	7	28
5	6	30
6	5	30
7	4	28

Table 22.5: Average and total revenue in a monopoly market

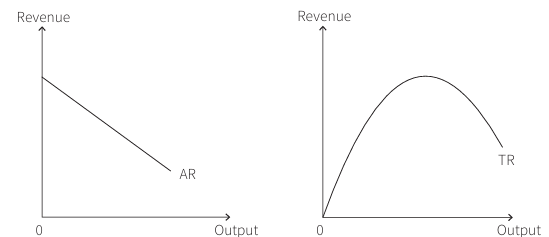


Fig. 22.8: The average and total revenue curves of a monopoly firm

KEY TERMS

Profit satisficing: sacrificing some profit to achieve other goals.

Profit maximisation: making as much profit as possible.

KEY TERMS

Total revenue: the total amount of money received from selling a product.

Average revenue: the total revenue divided by the quantity sold.

KEY TERM

Price: the amount of money that has to be given to obtain a product.

Objectives of firms

Firms may pursue a range of objectives including survival, growth, social welfare, **profit satisficing** and **profit maximization**

Survival

When firms are started, their initial objective may be just to survive in what may be a very competitive market. A firm may be content to just cover its costs until it can become better known. During difficult times when demand is falling, even large firms may have survival as their key objective.

Growth

Some firms may pursue the objective of growth. Increasing the size of the firm may bring a number of advantages. High and expanding sales tend to enable firms to take advantage of a number of internal economies of scale

Social welfare

State-owned enterprises may be given by the government the objective of improving social welfare. They may, for instance, charge a relatively low price for their products to ensure they are affordable to even the poor.

Profit satisficing

In some cases, firms may engage in what economists call profit satisficing. This involves making enough dividends to keep shareholders happy while pursuing other objectives.

Profit maximisation

Traditional theory, however, suggests that firms seek to maximise profits. This means that they try to earn the largest profit possible over a period of time. Whilst some of the other objectives may appear to conflict with profit maximisation, pursuit of them may actually increase profits in the longer term. For instance, growth may involve reducing the number of competitors. This would reduce the price elasticity of demand for its product and so its ability to raise price and revenue. In addition, increasing the scale of operation may reduce average costs. Both of these outcomes would increase profits.

When profit maximisation is achieved

Profit is made when the revenue earned by a firm is greater than the costs incurred by it. Profit maximisation is an objective pursued by most private sector firms. Total profit is the positive difference between total revenue and total cost.

Output	Total revenue (\$)	Total cost (\$)	Total profit (\$)
10	200	220	-20
20	380	380	0
30	500	480	20
40	600	540	60
50	660	620	40
60	700	710	-10

Table 22.6 The relationship between total revenue, total cost and total profit

Besides calculating total profit, the profit per unit can be found by deducting average cost from average revenue, as shown in Table 22.7. In this case, profit is maximised at three units.

Output	Average revenue (\$)	Average cost (\$)	Total profit (\$)
1	15	15	0
2	14	12	2
3	12	9	3
4	9	8	1
5	5	10	-5

Table 22.7: The relationship between average revenue, average cost and total profit

From the information in Table 22.7, it is possible to calculate total revenue (by multiplying average revenue with output), total cost (by multiplying average cost with output) and total profit (by multiplying profit per unit with output). These figures are shown in Table 22.8.

Output	Total revenue (\$)	Total cost (\$)	Total profit (\$)
1	15	15	0
2	28	24	4
3	36	27	9
4	36	32	4
5	25	50	-25

Table 22.8: Total revenue, total cost and total profit

If information is given on output, costs and revenue, it is possible to work out revenue as shown in Table 22.9. This is because it is known that

$$\text{profit} = \text{revenue} - \text{cost}$$

So, revenue = profit + cost. Similarly, from information on output, revenue and profit, cost can be calculated.

$$\text{cost} = \text{revenue} - \text{profit}$$

Output	Total profit (\$)	Total revenue (\$)	Total cost (\$)
10	0	400	400
20	100	800	700
30	300	1200	900
40	400	1600	1200
50	300	2000	1700

Table 22.9: The relationship between total profit, total revenue and total cost

Effects of change in profits

Profits motivate entrepreneurs to produce, enter competitive markets, and obtain external finance. Profitable firms attract shareholders and banks, making it easier to recruit top managers and directors. However, the impact of a fall in profits may vary over time, with some firms cutting back on production and others ceasing altogether.

Ways of increasing profit

The two fundamental ways of increasing profit are to

- Reduce costs of production, and
- Raise revenue.

To reduce production costs, businesses can reduce wastages and inefficiency, increase productivity, and invest in training and technology. In the long run, these strategies can lower average costs and increase revenue. Increasing the size of a firm through mergers or takeovers can also help take advantage of economies of scale, leading to higher total revenue and profit per unit.

Chapter 23

3.23 Market structure

Competitive markets

Market structure is a term for the conditions which exist in a market. There are a number of categories of market structure from very competitive to a monopoly which does not face any direct competition.

In **competitive markets**, there is usually relatively free entry into and exit from the market. This means that there must not be anything which makes it difficult for the firms to enter or leave the industry, that is to start or stop producing the product.

KEY TERMS

Market structure:
the conditions which exist in a market including the number of firms

Competitive market:
a market with a number of firms that compete with each other.

The behaviour of competitive firms

Easy entry and exit will mean that in the long run firms will probably earn relatively low profits. In some cases, this may be just enough profit to keep them producing the product. In the short run, they may earn more, or less, than this level of profit which is referred to as **normal profit**. If demand for the product rises, the firms in the industry will make higher than normal profit. This level of profit, called **supernormal profit**

Performance of competitive firms

High competition promotes efficiency by providing firms with incentives and threats to produce at the lowest possible cost. Firms that respond quickly or cut costs gain a competitive advantage and higher profits. However, firms that are not efficient, produce at higher costs, or respond to changes in consumer tastes may be driven out of the market.

Monopoly markets

The usual meaning of a **monopoly** is a sole supplier of a product having 100% share of the market. This is often referred to as a pure monopoly and we will concentrate on this definition.

Characteristics of a monopoly

- The firm is the industry. It has a 100% share of the market.
- There are high barriers to entry and exit, making it difficult for other firms to enter the market.
- A monopoly is a price maker. Its output is the industry's output and so changes in its supply affect the market price.

Why do monopolies arise?

A firm can have total market control due to various factors. Over time, a monopoly may develop due to cost reduction, past consumer preferences, mergers, or a monopoly from the start.

Why do monopolies continue?

Another important barrier to entry is the **scale of production**. If the monopoly is producing on a large scale, it may be able to produce at a low unit cost. Any new firm, unable to produce as much, is likely to face higher unit costs and therefore will be unable to compete.

Barriers to exit can also stop new firms from entering the market. One barrier to exit may be a long-term contract to provide a product. Some firms may be reluctant to undertake such a commitment. A significant barrier to exit is the existence of **sunk costs**.

The behaviour of a monopoly

A monopoly can earn supernormal profits in the long run due to barriers to entry and exit. Firms outside the industry may not be aware of these high profits, and even if they do, they are kept out. A monopoly has control over the supply but cannot influence demand. It must set prices and accept sales levels based on consumer demand curves.

KEY TERMS

Normal profit: the minimum level of profit required to keep a firm in the industry in the long run.

Supernormal profit: profit above that needed to keep a firm in the market in the long run.

Monopoly: a market with a single supplier.

Barrier to entry: anything that makes it difficult for a firm to start producing the product.

Barrier to exit: anything that makes it difficult for a firm to stop making the product.

KEY TERMS

Scale of production: the size of production units and the methods of production used.

Sunk costs: cost that cannot be recovered if the firm leaves the industry.

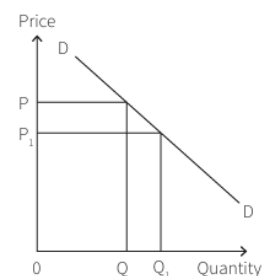


Fig. 23.1: The choice facing a monopolist

The performance of a monopoly

Monopolies are often criticized for their potential inefficiency, as they may restrict supply, produce poor quality products, and fail to respond to consumer changes. However, a monopoly can be relatively efficient, benefiting consumers by preventing wasteful duplication of capital equipment and allowing it to spend on research and development. This can lead to the introduction of new, improved variations and encourage firms outside the industry to develop better products.

Occurrence of monopoly

The number of firms that can be defined as monopolies depends, in part, on the way markets have been defined. The narrower the definition, in terms of the product and geographical area, the more examples will be found.

Revision questions

0455/21/O/N/23

Digital money, such as cryptocurrencies, is increasingly being used. Digital money transactions take place on electronic devices such as computers and smartphones. However, there can be market failure due to external costs arising from high energy usage of non-renewable sources. One way of reducing external costs is to tax the product.

- Explain two functions of money. [4]

0455/21/M/J/23

Living standards, including education, have improved for most people in South Africa in recent years. Most households have more money and the government has more tax revenue. There is, however, considerable income inequality. In 2020, 36% of the population were living in poverty. An increase in unemployment benefit payments might reduce this poverty.

- Identify two functions of money. [2]

0455/22/M/J/23

In 2020, the largest Thai commercial bank merged with a smaller commercial Thai bank. It was expected that the merger would affect the price charged for bank services and the amount that would be lent. Thai commercial banks operate in the private sector. A growing private sector can move an economy towards a market economic system.

- Identify two influences, other than price, on a customer's choice of bank. [2]

0455/22/M/J/21

The money supply in Bangladesh increased every year from 2010 to 2018. Changes in the money supply and the foreign exchange rate can affect a government's macroeconomic policy aims, including full employment. There have been few mergers between commercial banks in Bangladesh, although its banks are larger than many of its other firms.

- Identify two functions of money. [2]
- Explain two reasons why commercial banks may want to merge. [4]

0455/23/O/N/20

It was announced in November 2016 that 500 and 1000 rupee banknotes could no longer be used in shops in India. These were replaced by the central bank, an institution that makes extensive use of division of labour. In India, cash is still an important form of money used in economic transactions. The replacement of banknotes put pressure on banking staff and other workers in the tertiary sector, and affected the general price level.

- State two functions, other than issuing banknotes and coins, of a central bank. [2]

0455/22/O/N/20

Italy is home to the world's oldest bank and some of the world's oldest car producers. Internationally, both industries are facing a number of challenges. The wages of bank workers and car workers are increasing. Demand for bank loans and for cars is changing, in part, due to changes in population size. It is predicted that the price elasticity of demand (PED) for cars will also change in the future.

- State two functions of a commercial bank. [2]

0455/22/M/J/20

A number of countries are withdrawing high value banknotes. For instance, Singapore plans to stop issuing its \$10000 note. High value notes were originally intended to act as a convenient store of value. Central banks are concerned some notes are now being used illegally. The Singapore Police Force and the Monetary Authority of Singapore (its central bank) were trying to recruit more workers in 2017. It was expected that the central bank would raise the rate of interest in 2018.

- State two functions of money, other than a store of value. [2]
- Explain two advantages banknotes have as a form of money. [4]

0455/23/M/J/18

In early 2016, the central bank of the Republic of Turkey cut interest rates five times. This was despite an inflation rate of 7.6%. The economy had a combination of a low saving rate and weak investment. To stimulate economic growth the Turkish government announced a package of reforms including subsidies for research and investment.

- Identify two functions of a central bank. [2]

0455/22/M/J/18

In February 2016, share prices on stock exchanges fell throughout the world. There were a number of reasons for this; including concerns about the slowdown in world growth, the possibility of deflation and unemployment, and fears that some commercial banks could go out of business.

- Define commercial bank.
- Explain how a stock exchange could encourage economic growth. [4]

0455/21/M/J/23

In Greece, rich households spend more than the average household. The amount of spending in an economy influences whether its production point is on or inside its production possibility curve (PPC). In 2020, household spending in Greece fell. This affected some firms' plans to merge. It also increased unemployment. More than half of those unemployed in Greece had been unemployed for more than a year.

- Identify two reasons why rich households spend more than the average household. [2]

0455/21/O/N/22

Jordan has a fixed foreign exchange rate with the US dollar. The monetary policy of Jordan, therefore, follows the monetary policy of the US very closely. Due to low confidence in the global economy in 2019, central banks around the world, including Jordan and the US, cut interest rates to stimulate growth. However, this may have conflicted with the macroeconomic aim of low inflation.

- Explain the effects of low confidence on both spending and borrowing. [4]

0455/23/M/J/21

The demand for smartphones has become more price-inelastic as the range of functions available has increased. In low-income countries, smartphones are an important tool for economic development. This is because they provide access to education and banking services which were once not available in rural areas. Smartphones have made it easier for people to borrow and save their money.

- Discuss whether or not an increase in the level of savings is beneficial for an economy. [8]

0455/22/M/J/21

Nearly one million people in Cairo, the capital city of Egypt, live in crowded, unhealthy housing. One reason why people lack basic necessities, including adequate housing, is unemployment. In 2019, nearly 10% of Cairo's workers did not have a job. Other citizens of Cairo live in luxury, in houses costing more than \$1 million. Many of Cairo's rich adults grew up in rich families.

- Analyse why the children of the rich tend to become rich adults. [6]

0455/22/O/N/23

In the US, the supply of meat from emus, a large bird, is price-elastic. Recently, US farmers have switched to keeping other livestock and growing crops that changed their demand for labour. US farmers are influenced by the subsidies the government provides for the production of selected food items. Some people are reluctant to become farm workers as they think living standards are low in rural areas.

- Analyse what influences a farmer's demand for labour. [6]

0455/22/M/J/23

In 2019, China's economic growth rate was 6.1% and Chinese households increased their spending. More Chinese people attended sports events and the earnings of top sportspeople increased. China exported more despite a rise in tariffs on some of its products. For example, the US imposed higher tariffs on the imports of Chinese tea and coffee.

- Explain two reasons why some top sportspeople have high earnings. [4]

0455/21/M/J/23

Many people from the Philippines work in another country, often in industries that provide merit goods and public goods. In 2020, the Philippine government raised more tax revenue. Some was spent on policy measures to increase life expectancy and some on policy measures to reduce unemployment. The country's unemployment rate was also affected by a rise in the country's foreign exchange rate.

- Identify two influences on which country a person decides to work in. [2]

0455/23/O/N/22

Poland is the world's top exporter of toothpaste, a product that is in inelastic demand. In 2019, some Polish firms producing toothpaste considered a horizontal merger. Also in 2019, the wages of dentists increased globally. This increase was particularly high in the UK where dentists received, on average, a 25% wage rise.

- Discuss whether or not an increase in the wages of dentists will increase the number of dentists employed. [8]

0455/22/F/M/23

Safiye Ali became the first female doctor in Turkey in 1923. By 2020, 40% of Turkish doctors were women. Over this period, labour productivity increased. Turkey also experience advances in technology, a change in the current account balance on its balance of payments and a significant increase in the size of population.

- Explain two reasons why someone may choose to become a doctor. [4]

0455/22/O/N/22

The economic problem results in choices and opportunity cost. People have to decide what job to do and where to live. In recent years Australia has recruited teachers from a number of countries including Canada, the UK and the US. Most of these teachers specialise in a single subject.

- Analyse why the wages of all teachers may increase. [6]
- Discuss whether or not a teacher would benefit from specialisation. [8]

0455/21/O/N/22

Medan is the third largest city in Indonesia by population. It is sometimes known as the city of a million shop-houses as many people start small firms at the street level of their homes. This has led to an increase in the market supply of industries such as cafes and clothes shops. Also, due to the growth in demand for food delivery, the unemployment rate has fallen. However, mobility of labour is limited both within Medan and within Indonesia

- Explain two influences on the mobility of labour. [4]

0455/23/M/J/21

Cyclical unemployment is below the national average in some big cities in Canada such as Toronto, Vancouver, and Montreal. This could be a result of higher government spending and tax cuts in big cities. However, productivity is low. There are also concerns that structural unemployment may increase as some industries cannot compete with more efficient foreign firms.

- Discuss whether or not competition between firms in the same industry is always a disadvantage to workers. [8]

0455/22/F/M/21

Sweden has a mixed economic system. In 2018, it was operating at a point inside its production possibility curve (PPC). In 2018, the country's schools employed nearly 2500 extra teachers. A few of these had previously been actors. A higher number had previously been government officials involved with regulation of Swedish monopolies.

- Analyse why an actor may decide to become a teacher. [6]

0455/21/M/J/22

Singapore is a high-income country with a shortage of land and labour. Singapore is often given as an example of a market economy. The Singaporean government does, however, intervene in the economy. For example, it encourages its population to eat two servings of fruit and two servings of vegetables per day.

- Explain how an increase in a worker's income can affect their mobility of labour. [4]

0455/21/M/J/22

Uganda specialises in agricultural products and has a relatively small secondary sector. In the 1990s, the Ugandan government privatised most of its firms, including banks and railways. Some economists thought this privatisation was unsuccessful because poverty increased and unemployment remained high. In recent years, the Ugandan government has used supply-side policy measures to reduce unemployment.

- Analyse how specialisation can benefit firms. [6]

0455/21/M/J/22

Trade union membership is much higher in Sweden than in most countries. In 2019, 70% of Swedish workers were members of a trade union. More than 85% of Swedish workers are employed in the tertiary sector, compared with only 2% in the primary sector. Swedish workers spend their incomes on a variety of products some of which, e.g. sweets, are demerit goods. Sweden has the 7th highest per head consumption of sweets in the world.

- Discuss whether or not tertiary sector workers are paid more than primary sector workers. [8]

0455/23/O/N/20

It was announced in November 2016 that 500 and 1000 rupee banknotes could no longer be used in shops in India. These were replaced by the central bank, an institution that makes extensive use of division of labour. In India, cash is still an important form of money used in economic transactions. The replacement of banknotes put pressure on banking staff and other workers in the tertiary sector, and affected the general price level.

- Explain two reasons why workers in the tertiary sector may be paid more than workers in the primary sector. [4]
- Analyse the advantages for firms of using division of labour. [6]

0455/22/O/N/20

Wage rate growth has increased recently in Kazakhstan, but its economic growth rate has slowed. This is, in part, due to a fall in exports. To try to increase the economic growth rate, the government has increased its spending on investment. In August 2015, it adopted a floating foreign exchange rate system in an attempt to improve the country's macroeconomic performance.

- Define wages. [2]

0455/22/O/N/20

Italy is home to the world's oldest bank and some of the world's oldest car producers. Internationally, both industries are facing a number of challenges. The wages of bank workers and car workers are increasing. Demand for bank loans and for cars is changing, in part, due to changes in population size. It is predicted that the price elasticity of demand (PED) for cars will also change in the future.

- Analyse the possible causes of a rise in the wages of bank workers. [6]

0455/21/O/N/20

Free trade has allowed the Mexican economy to specialise in low-cost manufacturing. Unemployment nationally is relatively low, but approximately 50 million people were still considered to be in poverty in 2016. In addition, there are worries that technological advances will soon replace labour with capital.

- Analyse how firms can benefit from specialisation. [6]

0455/23/M/J/20

There is a high level of division of labour in the United Kingdom (UK) energy industry. Cold weather in early 2018 caused very high demand for energy and a change in its price. This led to a temporary shortage of energy for firms and households in the UK. Part of the change in price may have been the result of UK energy firms abusing their monopoly power. This would be an example of market failure.

- Discuss whether or not workers benefit from division of labour. [8]

0455/22/M/J/20

A number of countries are withdrawing high value banknotes. For instance, Singapore plans to stop issuing its \$10000 note. High value notes were originally intended to act as a convenient store of value. Central banks are concerned some notes are now being used illegally. The Singapore Police Force and the Monetary Authority of Singapore (its central bank) were trying to recruit more workers in 2017. It was expected that the central bank would raise the rate of interest in 2018.

- Analyse the influences on the mobility of workers. [6]

0455/22/F/M/20

The main industries in the Seychelles, an island country in the Indian ocean, are tourism and fishing. The price elasticity of supply of fish is affected by the relatively short time that fish can be stored. Economic goods and free goods play a role in both fishing and tourism. With rises in the skills of workers and an increase in enterprise, GDP per head has increased by more than seven times over the last fifty years.

- Discuss whether or not skilled workers are always paid more than unskilled workers. [8]

455/22/F/M/19

The mobile (cell) phone industry is growing in Asia with more workers being employed. In March 2017, there was a merger between two mobile phone producers, both of which had relatively high fixed costs. This merger created one of the largest mobile phone firms and moved the Asian market further from perfect competition and closer to monopoly. It was expected that profits in the industry would increase as a result of the merger.

- Analyse what determines a firm's demand for labour. [6]

0455/21/O/N/18

During a recent recession in Europe, Spain had an unemployment rate of over 25%. This led to high levels of emigration from Spain into higher-wage European economies such as Germany and the UK. This has created both opportunities and problems in countries where immigration was higher than emigration.

- Explain two reasons for wage differentials between different economies. [4]

0455/21/O/N/18

Teachers in many countries oppose their governments' cuts in spending on education. They worry that this could reduce the standard of education and also the welfare of teachers employed in the state sector. Some teachers specialise in teaching one subject while others teach a number of subjects.

- Identify two reasons why a person may want to work in the state sector. [2]
- Discuss whether or not a worker would benefit by specialising. [8]

0455/22/M/J/18

In October 2015, the Chinese government switched from its one child policy to a two child policy partly because of the challenges caused by an ageing population. The birth rate was falling anyway due to rising female participation in the labour force, improvements in education, later marriages and the rapidly rising price of housing.

- Analyse why more women may enter the labour force. [6]

0455/21/M/J/18

More than 80% of Qatar's population are immigrants. Net immigration has helped to meet the country's demand for labour. As well as a shortage of workers, the country has a shortage of drinking water. The government has run public campaigns to stop people using their free supply of drinking water to fill their swimming pools and water their gardens. In 2016, the government increased its spending to increase the country's economic growth rate.

- Analyse what determines the demand for labour. [6]

0455/21/M/J/18

In England football stadiums are usually built and financed by the private sector, but in some countries the stadiums are built and financed by the government. Many football stadiums in the English Premier League are full on match days. In

the short run the supply of seats is perfectly inelastic. The football clubs could actually raise prices, still sell their tickets and so raise their profits. Premier League footballers currently receive very high wages.

- Analyse why Premier League footballers receive very high wages. [6]

0455/22/F/M/18

France is a mixed economy. During recent years there have been a number of changes in its labour market. More workers are employed in the tertiary sector and fewer workers in the primary sector. Average working hours have increased and public sector workers have received wage rises.

- Discuss whether or not a government should increase the wages it pays to workers in the public sector. [8]

0455/22/O/N/23

In 2020, some firms in Suriname, a South American country, stopped production. This was because the firms could not cover their variable costs, as well as some of their fixed costs. The reduction in the country's output resulted in a rise in its unemployment rate. The government used supply-side policy measures to reduce unemployment. In 2021, the number of firms in some markets fell again, but this time it was when output was rising.

- Discuss whether or not having fewer firms in a market will benefit consumers. [8]

0455/21/O/N/23

A third of the world's ski resorts are located in the Alps. Prices for holidays in the Alps are relatively higher than in other regions. The recent pandemic, however, reduced the revenues of many large and small firms in the tourism industry in the winter season of 2020/2021. Many blamed strict government regulations for this. However, government intervention also helped many firms to survive.

- Explain two advantages of a large firm. [4]

0455/22/M/J/23

In 2020, the largest Thai commercial bank merged with a smaller commercial Thai bank. It was expected that the merger would affect the price charged for bank services and the amount that would be lent. Thai commercial banks operate in the private sector. A growing private sector can move an economy towards a market economic system.

- Explain two reasons why a merger may result in higher prices for consumers. [4]

0455/21/O/N/22

Some firms have social welfare as their main objective. Globally, the number of this type of firm is increasing. Consumers are also starting to change their spending patterns by moving towards environmentally friendly products such as solar energy. Environmentally unfriendly firms are less able to make profits and some of these firms must merge to survive.

- Explain two types of merger. [4]

0455/22/F/M/22

New Zealand is a small country with a population of 5 million. Most New Zealand firms are relatively small and most do not experience diseconomies of scale. In 1894, New Zealand was the first country to introduce a national minimum wage. New Zealand experienced a rise in income per head every year between 2010 and 2019. During this period, 6% of New Zealand's households experienced absolute poverty.

- Define diseconomies of scale. [2]

0455/21/O/N/22

Medan is the third largest city in Indonesia by population. It is sometimes known as the city of a million shop-houses as many people start small firms at the street level of their homes. This has led to an increase in the market supply of industries such as cafes and clothes shops. Also, due to the growth in demand for food delivery, the unemployment rate has fallen. However, mobility of labour is limited both within Medan and within Indonesia.

- Analyse the reasons for the existence of small firms. [6]

0455/22/M/J/21

The money supply in Bangladesh increased every year from 2010 to 2018. Changes in the money supply and the foreign exchange rate can affect a government's macroeconomic policy aims, including full employment. There have been few mergers between commercial banks in Bangladesh, although its banks are larger than many of its other firms.

- Discuss whether or not it is an advantage to keep a firm small. [8]

0455/23/M/J/20

Business-friendly fiscal policy in the United States (US) has encouraged firms to produce more. The US government has also encouraged mergers, including firms in the gas and electricity industries. Even though there are significant

regulations, entrepreneurs have found that mergers enable them to maximise their profits. However, this may make markets less competitive and some states have imposed a maximum price for gas and electricity.

- Explain two types of mergers. [4]

0455/22/M/J/20

Mali is a low income and low productivity country in Africa. Its government is using fiscal policy to reduce poverty. The country's main industries are agriculture and gold mining. In recent years, however, there have been some changes in its resource allocation. The country is developing its iron ore industry. Globally, the iron ore industry is one which has experienced a significant number of mergers in recent years.

- Discuss whether or not mergers benefit an economy. [8]

0455/22/F/M/20

In 2017, the Brazilian paper industry was booming. Its total revenue increased and it employed both more, and better quality, factors of production. Brazil's largest paper producer merged with an Indonesian paper-producing firm at the end of 2017. The performance of Brazil's coffee industry differed from its paper industry. Brazilian coffee experienced a fall in demand and a fall in total revenue

- Analyse the possible effects on consumers of a merger between two paper-producing firms. [6]

0455/22/F/M/19

The mobile (cell) phone industry is growing in Asia with more workers being employed. In March 2017, there was a merger between two mobile phone producers, both of which had relatively high fixed costs. This merger created one of the largest mobile phone firms and moved the Asian market further from perfect competition and closer to monopoly. It was expected that profits in the industry would increase as a result of the merger.

- Discuss whether or not a merger will increase profits. [8]

0455/22/M/J/18

Farms in the USA are getting larger. One dairy farm in the state of Indiana has over 38000 cows. Farms in the USA compete with farms in both developed and developing countries. The value of the farms' exports of milk appears in the trade in goods section of the current account of the USA's balance of payments.

- Analyse the economies of scale from which a farm may benefit. [6]

0455/22/M/J/18

Swaziland is a small African country where six in ten people live in poverty and most firms are small and use little capital equipment. In October 2015 it opened a new airport. Some economists suggest that the building of the airport involved a high opportunity cost and caused a range of external costs. The building of the airport is part of the government's plan to turn the country from a developing into a developed country.

- Discuss whether people would prefer to buy a product from a small firm or a large firm. [8]

0455/22/F/M/18

South Africa has more than 700 state-owned enterprises, a number of which have engaged in vertical integration and horizontal integration. Some of the state-owned enterprises are monopolies, including a railway monopoly. A leading South African economist has argued that more of the country's resources should be devoted to building and operating new railway lines and stations.

- Explain the difference between vertical integration and horizontal integration. Give an example of each. [4]

0455/22/F/M/23

In 2019 India became the world's largest producer of sugar. Sugar cane is grown in the country by a large number of mainly low-income farmers. They sell sugar cane to mills which process the sugar cane into sugar. Processing the sugar cane is more capital intensive than growing it. The Indian government sets a minimum price for sugar cane and subsidises the export of sugar.

- Explain two advantages of capital intensive production. [4]

0455/22/F/M/23

Safiye Ali became the first female doctor in Turkey in 1923. By 2020, 40% of Turkish doctors were women. Over this period, labour productivity increased. Turkey also experience advances in technology, a change in the current account balance on its balance of payments and a significant increase in the size of population.

- identify two causes of an increase in labour productivity. [2]

0455/23/M/J/21

Cyclical unemployment is below the national average in some big cities in Canada such as Toronto, Vancouver, and Montreal. This could be a result of higher government spending and tax cuts in big cities. However, productivity is low. There are also concerns that structural unemployment may increase as some industries cannot compete with more efficient foreign firms.

- Explain two causes of low productivity. [4]

0455/22/M/J/21

Consumers in Uruguay are eating more processed foods. Factors of production, including enterprise, have responded to this change. Firms in the processed food industry have become more capital-intensive. All of Uruguay's industries were affected by the rise in its inflation rate, from 6.2% in 2017 to 7.7% in 2018.

- Analyse why a firm may become more capital-intensive. [6]

0455/21/M/J/21

In 2018, the US had its lowest unemployment rate for 18 years. Cyclical unemployment was very low and so was the rate of inflation. The US also experienced a rise in labour productivity. However, it did not do so well in reducing poverty. In 2018, approximately 12% of Americans were living in poverty.

- Explain two ways a firm could increase the productivity of its workers. [4]

0455/22/O/N/23

In 2020, some firms in Suriname, a South American country, stopped production. This was because the firms could not cover their variable costs, as well as some of their fixed costs. The reduction in the country's output resulted in a rise in its unemployment rate. The government used supply-side policy measures to reduce unemployment. In 2021, the number of firms in some markets fell again, but this time it was when output was rising.

- Define, with an example, a fixed cost. [2]

0455/21/O/N/23

A third of the world's ski resorts are located in the Alps. Prices for holidays in the Alps are relatively higher than in other regions. The recent pandemic, however, reduced the revenues of many large and small firms in the tourism industry in the winter season of 2020/2021. Many blamed strict government regulations for this. However, government intervention also helped many firms to survive.

- State how average revenue is calculated. [2]

0455/22/M/J/23

Canada's private sector firms have a number of different objectives. The quantity and quality of land used by these firms, including farms, has increased. There has also been increased investment with the firms buying more capital goods. In 2021, the Canadian government encouraged higher investment and aimed to prevent a rise in unemployment.

- Identify two objectives of private sector firms. [2]

0455/21/M/J/23

In Greece, rich households spend more than the average household. The amount of spending in an economy influences whether its production point is on or inside its production possibility curve (PPC). In 2020, household spending in Greece fell. This affected some firms' plans to merge. It also increased unemployment. More than half of those unemployed in Greece had been unemployed for more than a year.

- Discuss whether or not a government should encourage firms to merge. [8]

0455/21/O/N/22

Some firms have social welfare as their main objective. Globally, the number of this type of firm is increasing. Consumers are also starting to change their spending patterns by moving towards environmentally friendly products such as solar energy. Environmentally unfriendly firms are less able to make profits and some of these firms must merge to survive.

- Identify two examples of social welfare objectives of firms. [2]
- Discuss whether or not a merger can help a firm survive. [8]

0455/22/F/M/22

New Zealand is a small country with a population of 5 million. Most New Zealand firms are relatively small and most do not experience diseconomies of scale. In 1894, New Zealand was the first country to introduce a national minimum wage. New Zealand experienced a rise in income per head every year between 2010 and 2019. During this period, 6% of New Zealand's households experienced absolute poverty.

- Analyse, using a diagram, the effect of an increase in output on average fixed cost (AFC) and total fixed cost (TFC). [6]

0455/21/M/J/21

Australia experienced a drought in 2018 which caused its agricultural output to fall. Australia's secondary and tertiary sectors performed better in 2018 than its primary sector. All three sectors were affected by the measures taken by the central bank to avoid deflation. Some firms benefited from these measures and increased their output.

- Discuss whether or not a firm should have growth as its main objective. [8]

0455/23/M/J/20

Business-friendly fiscal policy in the United States (US) has encouraged firms to produce more. The US government has also encouraged mergers, including firms in the gas and electricity industries. Even though there are significant regulations, entrepreneurs have found that mergers enable them to maximise their profits. However, this may make markets less competitive and some states have imposed a maximum price for gas and electricity.

- Define profit maximisation. [2]

0455/21/M/J/20

Australian firms have been praised for introducing new technology. The actions of some of these firms, however, cause market failure. The Australian government uses subsidies, among other policies, to reduce market failure. Government spending is used both to improve the performance of individual markets and the macroeconomy. The Australian government increased its spending in 2017, in part to reduce unemployment.

- State two objectives of firms. [2]

0455/22/F/M/20

In 2017, the Brazilian paper industry was booming. Its total revenue increased and it employed both more, and better quality, factors of production. Brazil's largest paper producer merged with an Indonesian paper-producing firm at the end of 2017. The performance of Brazil's coffee industry differed from its paper industry. Brazilian coffee experienced a fall in demand and a fall in total revenue.

- Define total revenue. [2]

0455/22/F/M/19

The mobile (cell) phone industry is growing in Asia with more workers being employed. In March 2017, there was a merger between two mobile phone producers, both of which had relatively high fixed costs. This merger created one of the largest mobile phone firms and moved the Asian market further from perfect competition and closer to monopoly. It was expected that profits in the industry would increase as a result of the merger.

- Identify two fixed costs. [2]
- Discuss whether or not a merger will increase profits. [8]

0455/21/M/J/18

In England football stadiums are usually built and financed by the private sector, but in some countries the stadiums are built and financed by the government. Many football stadiums in the English Premier League are full on match days. In the short run the supply of seats is perfectly inelastic. The football clubs could actually raise prices, still sell their tickets and so raise their profits. Premier League footballers currently receive very high wages.

- Explain two reasons why a firm may not aim to earn maximum profit. [4]

0455/22/F/M/18

Taxi drivers usually have to buy a licence to carry passengers. The relatively high fixed cost of the licence discourages some people from becoming taxi drivers. Encouraging more people to be taxi drivers would be likely to reduce taxi fares and unemployment. It may, however, increase traffic congestion.

- Define fixed cost. [2]

0455/22/M/J/23

In 2020, Australia had a high national minimum wage (NMW). The NMW is received by some people who work on Australian dairy farms. Australia produces milk and soft drinks. Milk is purchased by some people as an alternative to soft drinks. Some dairy farms and some small firms went out of business in 2020. The year saw an increase in the value of the country's floating foreign exchange rate.

- Discuss whether or not small firms are more likely to go out of business than large firms. [8]

0455/23/O/N/22

Washington State is the state which grows the most apples in the US. In 2019, apple production increased in Washington State but the market was in disequilibrium. Apple farming is a labour intensive industry because apples are picked by hand. The market for apples in the US is competitive.

- Discuss whether or not consumers benefit from a competitive market. [8]

0455/22/F/M/22

The economic problem means that countries have to decide what to produce. Ghana uses much of its agricultural land to grow cocoa. Cocoa is sold to chocolate producers. The world's main chocolate producer in 2019 was a US firm with a 14% share of the global market. That firm was the largest seller of chocolate in the US and, if it merges, may become a monopoly.

- Discuss whether or not consumers would benefit from a firm becoming a monopoly. [8]

0455/22/F/M/21

Sweden has a mixed economic system. In 2018, it was operating at a point inside its production possibility curve (PPC). In 2018, the country's schools employed nearly 2500 extra teachers. A few of these had previously been actors. A higher number had previously been government officials involved with regulation of Swedish monopolies.

- Discuss whether all monopolies have low costs of production. [8]

0455/23/O/N/20

Russia's birth rate fell by 11% in 2017 to its lowest level for a decade. Over the next 30 years, Russia's population is forecast to fall from 144 million to 107 million. The government announced measures to reverse this decline in population. In 2017, it also announced privatisation plans and measures to reverse a decrease in investment which could lead to a fall in the quantity of capital goods. Privatisation can reduce monopoly power in a market.

- Discuss whether or not a government should allow monopolies. [8]

0455/22/F/M/19

The mobile (cell) phone industry is growing in Asia with more workers being employed. In March 2017, there was a merger between two mobile phone producers, both of which had relatively high fixed costs. This merger created one of the largest mobile phone firms and moved the Asian market further from perfect competition and closer to monopoly. It was expected that profits in the industry would increase as a result of the merger.

- Explain two ways monopoly differs from perfect competition. [4]

0455/23/M/J/18

The production process in the oil industry is capital-intensive. The pollution it generates means it is one cause of environmental market failure. A Nigerian oil monopoly is starting to produce more environmentally friendly liquefied petroleum gas (LPG), rather than kerosene, in an attempt to reduce pollution. The Nigerian government intends to split the monopoly firm into separate companies to improve efficiency.

- Discuss whether or not removing a firm's monopoly power will benefit consumers. [8]

0455/22/M/J/18

In the UK, bus journeys outside London have fallen by nearly 40% since 1980. This fall in demand has been largely due to a rise in bus fares, a rise in income and changes in the price and quality of substitutes. On some routes there are monopolies operating and this lack of competition can push up the price.

- Explain two advantages a firm may gain from being a monopoly. [4]

0455/22/F/M/18

South Africa has more than 700 state-owned enterprises, a number of which have engaged in vertical integration and horizontal integration. Some of the state-owned enterprises are monopolies, including a railway monopoly. A leading South African economist has argued that more of the country's resources should be devoted to building and operating new railway lines and stations.

- Define state-owned enterprise. [2]
- Analyse how a monopoly could benefit consumers. [6]