

OFS IGCSE

Economics

G1

Semester Two
examination revision
guide



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Preface

The cover page was designed by Eason Qin, inspired by the Comp Sci G1 guide. He also helped with document formatting. This revision guide is also missing chapters 14-17, however, there is a Google Slides Presentation which covers chapter 14:

<https://docs.google.com/presentation/d/1NQmpgxBnHVNh-ZWgwneDmUdyysIem4pOBXVrHiuRfs/edit?usp=sharing>

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Chapter 18: Workers

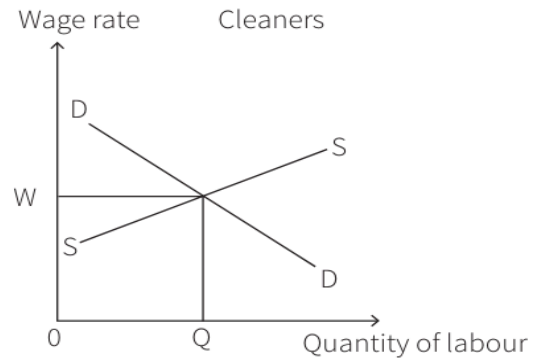
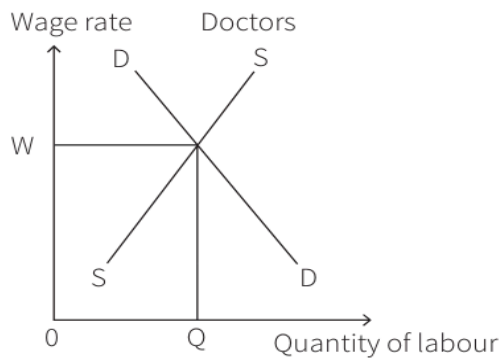
Wage factors that affect job selection

A worker gets earnings, which is the total pay a person receives

- **Wage factors:**
 - Wage rate
 - Overtime
 - Enables employers to respond to higher demand without taking on new workers,
 - Bonuses
 - Provide an incentive for workers to produce both a high and a good quality output or to stay with a firm
 - Commission
- **Non wage factors include:**
 - Job satisfaction
 - They get satisfaction from doing this job even with little pay, nurses, teachers etc
 - Type of work
 - Some prefer physical, or mental or non-manual
 - Working conditions
 - Pleasant surroundings with nice colleagues and regular breaks
 - Working hours
 - Holidays
 - Pension
 - Fringe benefits
 - Healthcare, meals, cars house or maybe paid tuition for children
 - Career prospects
 - Low wage but after a period of time they might get raises and more pay or more challenging work
 - Firm size
 - Some like big organisations as they may pay more or have better career prospects, job security and fringe benefits. On the other hand, with smaller firms they believe that there will be nicer atmosphere.
 - Location
- **Limiting factors:**

- Occupation 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.

- Demand and Supply



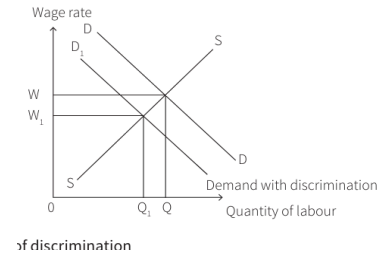
Wage determination and the reasons for differences in earnings

- High wages in areas with high bargaining power due to them maybe being difficult to replace
- **Government policies**
- Public sector wages: The government directly sets wages for its employees.
- Economic growth policies: Policies promoting economic growth generally increase labour demand, pushing up wages across the economy.
- Occupation-specific policies: Regulations like mandatory driver's tests can increase demand for specific professions (driving instructors) and their wages.
- Labour market policies: Minimum wage laws set a floor for wages, aiming to raise pay for low-income workers and reduce poverty. However, a minimum wage above the market equilibrium wage rate can lead to unemployment, according to some arguments.
- **Public opinions**
 - Public opinion affects wages. People believe jobs requiring long training deserve high pay. Public opinion can influence wage claims (e.g., firefighters seeking a raise after police get one). It can also pressure governments to adjust wages (e.g., raising nurses' pay due to public

support). In some countries, social attitudes can lead to lower pay for women in professions like nursing.

● **Discrimination**

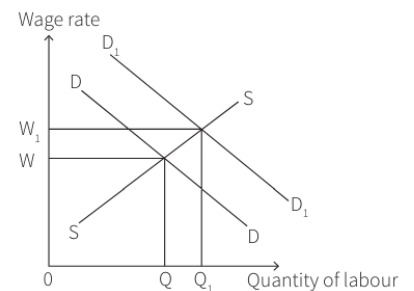
- Discrimination lowers wages for certain groups. Employers may be less likely to hire them, reducing demand for their labour and driving their wages down. This is unfair and can particularly impact women in some professions.



- With women being less qualified
- Heavily concentrated in low paid occupations
- Less likely to belong to trade unions & professional organisations
- Still discriminated against

Occupation earnings change & why

- 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 & it may be paid at a higher rate too.



- Causes
 - Product demand increased
 - Labour productivity increase
 - Rise in capital price
- Changes in the supply of labour
 - Decrease in the supply of labour for a particular occupation or sector would be expected to raise the wage rate
 - Causes
 - Fall in labour force
 - Rise qualifications for the job
 - Less non-wage benefits
 - Rise in wage or non-wage benefits in other jobs
- Changes in stages of production

Sector	Wages	Skill Requirement	Demand Change
Primary	Lower-paid	Lower	Declines

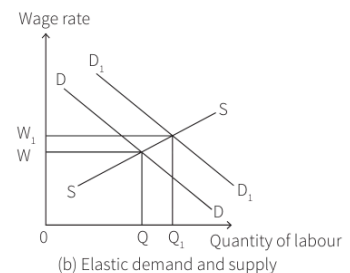
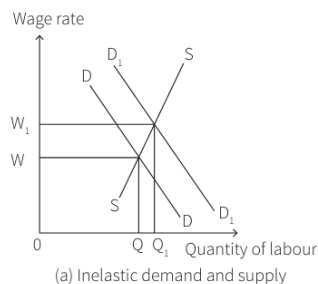
Secondary	Higher-paid (initially)	Varies	Increases (initially) then declines
Tertiary	Highest-paid (eventually)	Higher	Increases

- Changes in bargaining power
 - Unions boost wages. Stronger unions or threats of strikes give workers more bargaining power, leading to higher pay. This is seen with recent pay increases for NHS workers who were more willing to strike.
- Government policies
 - Governments can affect wages in a number of ways. Expanding the public sector or raising the minimum wage will directly increase wages in certain sectors. Education and immigration policies can also influence wages. Improved education can raise wages for skilled workers if it increases demand more than supply. Conversely, relaxing immigration restrictions for certain professions can hold down wage rises in those professions. Anti-discrimination laws can help disadvantaged groups enter higher-paying jobs. Finally, technological advancements can have a mixed impact on wages, creating new high-demand jobs in some sectors while reducing demand for workers in others.

Policy	Impact on wages
Expand the public sector	Increase wages in public sector
Reduce road building	Decrease wages in road construction firms
Raise national minimum wage	Increase wages of low-paid workers
Improve education and training	Increase wages of skilled workers (if demand rises more than supply)
Relax immigration restrictions for certain professions	Hold down wage rises in those professions
Introduce anti-discrimination laws	Increase wages of disadvantaged groups
Technological advancements	Can increase or decrease wages depending on

- Public opinion changes
 - Public perception of professions can influence wages. Occupations that gain respect, like women's work in Saudi Arabia, can see rising wages and opportunities. Conversely, declining esteem for a profession, like journalism in the US, can lead to lower pay.
- Changes in the earnings of individuals
 - Wages tend to rise with experience for most workers. This is because they gain skills and become more productive over time, making them more valuable to employers. This can lead to promotions, higher pay, or taking on more responsibility for more money. However, some older workers may choose to work less or switch to less demanding jobs, leading to lower earnings. Additionally, company financial difficulties can also cause wage reductions.
- Extent to that earnings change

- Elasticity affects wage changes due to supply and demand shifts. When both supply and demand are inelastic (less responsive to



(less responsive to price changes), a small shift in demand can cause a larger wage change. In essence, with less flexibility in the market, wages adjust more significantly to accommodate changes.

- The main determinants are:
 - Labour cost
 - Ease which labour can be replaced with capital
 - Product elasticity
 - Qualifications and skills required
 - Length of training period
 - Level of employment
 - Mobility of labour
 - Degree of vocation

- Attachment workers have for their job, the more inelastic the supply is

Specialisation and division of labour

- Specialisation
 - Specialisation refers to focusing on a limited range of products or tasks to gain efficiency. This applies to both firms and individuals:
 - Firms: Instead of making many products, they focus on a few they can produce efficiently.
 - Individuals: Like a doctor specializing in heart problems, they focus on a specific area within their field to improve their skills and knowledge.
- Division of labour
 - Workers specialize in specific tasks instead of producing an entire good or service.
 - This aims to reduce the cost per unit produced.
 - Advantages
 - Increased worker skill and efficiency: Practice makes perfect, leading to higher output per worker.
 - Faster training: Workers can learn a specific task quickly.
 - Reduced wasted time: Less switching between tasks.
 - Easier machine design: Simpler tasks are easier to automate.
 - Disadvantages
 - Potential for higher costs:
 - Boredom leading to carelessness and mistakes.
 - Absenteeism and higher turnover.
 - Difficulty covering for absent workers.
 - High wages for workers with in-demand skills.
 - Potential for worker dissatisfaction
 - Repetitive tasks can be boring.
 - Underutilizes worker talents.
 - Risk of unemployment
 - Demand for specialized skills can decline.
 - Overall impacts:
 - Production cost changes & Product quality changes.
 - Economy's ability to produce and export more.

Chapter 19: Trade Unions

Types of Unions

- **Craft union**
 - Represent workers with particular skills, like plumbers and weavers
- **General union**
 - Workers with range of skills from a range of industries
- **Industrial unions**
 - Within a particular industry, rail industry
- **White collar union**
 - Particular professions, pilots, & teachers

Role of Trade Unions

Trade unions act as representatives for workers, aiming to improve their working conditions and overall well-being. Here's a breakdown of their key functions:

- **Negotiation:** They bargain on behalf of members regarding wages, job security, work hours, and overall working conditions. This can include aspects like basic pay, overtime pay, holidays, health and safety protocols, and promotion opportunities.
- **Information Provision:** Unions serve as a source of information for members on various employment-related issues, such as pensions and workers' rights.
- **Education and Training:** They may participate in or even provide educational and training programs to enhance members' skills and marketability.
- **Benefits:** Some unions offer benefits to members, including financial aid during strikes, legal advice, and even sickness pay.
- **Lobbying:** Unions advocate for workers' rights by lobbying governments to enact laws that benefit workers, such as a national minimum wage.
 - All this is done via collective bargaining
 - Unions address the weak bargaining position of individual workers. By acting collectively, they gain leverage in negotiations with employers through collective bargaining.
- Wage raise arguments
 - **Productivity:** Workers deserve higher pay due to increased effort and productivity.

- **Company Profits:** When a company's profits rise, workers who contributed likely deserve a raise.
- **Comparability:** Wages should keep pace with similar professions (e.g., nurses' wages compared to doctors').
- **Cost of Living:** Wage increases should offset inflation to maintain purchasing power (real income).

Factors Affecting Trade Union Strength

Unions have more bargaining power to secure better wages and working conditions for their members under several circumstances:

- **Strong Economy:** A booming economy with rising output and incomes allows companies to improve pay and conditions. When there's full employment or near full employment, firms compete for workers, making them more receptive to union demands.
- **Large Union Membership:** A larger union has more resources to fund activities and represents a bigger workforce, making it harder for employers to replace union workers during disputes.
- **Skilled Workforce:** Unions representing highly skilled workers have a strong position because replacing them is expensive and time-consuming.
- **Essential Products:** Unions representing workers in essential product or service industries have more leverage, as consumers rely heavily on their work.
- **Supportive Government Laws:** Laws allowing unions to take strike actions strengthen their bargaining power.

Industrial Action

If negotiations between unions and employers fail, unions can take various industrial actions to increase their bargaining power:

- **Overtime Ban:** Workers refuse to work beyond their contracted hours.
- **Work to Rule:** Workers perform only the tasks explicitly required by their contracts, following all rules strictly.
- **Strikes:** Workers withdraw their labor entirely. There are two main types:
 - **Official Strikes:** Approved and organized by the union.
 - **Unofficial Strikes:** Not approved by the union, may be called by local representatives or in response to disagreements with the union.

The impact of strikes is measured by:

- Number of strikes
- Number of workers involved
- Number of working days lost (clearest indicator of economic impact)

To prevent strikes, governments may encourage **arbitration** (a procedure in which a dispute is submitted, by agreement of the parties, to one or more arbitrators who make a binding decision on the dispute), where a neutral third party helps both sides reach an agreement. This arbitrator can be a government body or an independent party chosen by both unions and employers.

Influence on the Supply of Labour

In addition to negotiation and industrial action, unions can employ strategies to limit the supply of labour in their industry, potentially increasing wages:

- **High Qualification Requirements:** Unions may push for stricter qualifications for new workers, making it harder for non-members to enter the field.
- **Closed Shops:** In a closed shop, employers can only hire union members or those who agree to join. This limits competition for jobs from non-union workers and strengthens the union's bargaining power. (Open shops allow employers to hire freely.)

By restricting the labour supply, unions can create higher demand for their existing members' skills, potentially driving up wages. However, this approach can also limit competition and innovation within the industry.

Advantages & Disadvantages of Union Membership

- Firms & Workers
 - Advantages
 - **Efficient Negotiations:** Negotiating with unions is faster and less expensive than individual worker bargaining.
 - **Communication Channel:** Unions facilitate communication between employers and workers, reducing misunderstandings.
 - **Training and Productivity:** Unions may encourage worker training, leading to higher productivity and safety.

- **Grievance Resolution:** Unions provide a formal channel for worker complaints, reducing conflict.
 - **Spillover Benefits:** Improved wages and working conditions negotiated by unions can also benefit non-unionized workers in the same industry.
- Disadvantages
 - **Lost Revenue:** Strikes can significantly reduce a firm's revenue due to production stoppages.
 - **Reputation Damage:** Prolonged strikes can harm a firm's public image and customer trust.
 - **Increased Costs:** Overtime bans and “work to rule” actions can raise labour costs due to inefficiencies.

Trade Unions & the Government

The influence and legal status of trade unions vary greatly across different countries:

- **Restricted or Banned:** In some countries like Saudi Arabia, unions are illegal or severely restricted.
- **Limited Effectiveness:** Pakistan allows unions, but government regulations can limit their ability to strike or take action.
- **Selective Unionization:** Mauritius has a high overall unionization rate, but membership is lower in Export Processing Zones where employers may discourage union activity.
- **Strong Unions:** Nordic countries like Norway, Finland, & stupid ^{Sweden} 🤡 have high union membership and strong worker representation.
- **Shifting Landscape:** The UK has seen a decline in union membership due to past legislation and economic changes, though it's risen among women and public sector workers.
- **Paradox of Power:** France has a low union membership rate, but unions hold significant power due to public support, willingness to strike, and legal rights (e.g., involvement in unemployment benefits and company councils).

Chapter 20: Firms

Classification of Firms

Industries: Groups of firms producing similar goods or services (e.g., car industry with Volvo, General Motors, Toyota).

Firms (Business Entities/Organizations): Businesses that may have multiple production units (plants).

- **Plants:** Production units or workplaces (factories, farms, offices, branches).

Classification of Firms:

- **Production Stage:**
 - **Primary Sector:** Extracts raw materials (agriculture, mining, forestry).
 - **Secondary Sector:** Processes raw materials into finished goods (manufacturing, construction).
 - **Tertiary Sector:** Provides services (banking, insurance, tourism).
 - **Quaternary Sector (Sub-sector of Tertiary):** Information services (information technology). *(Quaternary Sector is not part of the OFS curriculum and not needed to know of for the exams, however IB Economics will use this terminology)*
- **Ownership:** Public vs. Private ownership.
- **Size:** Small, medium, or large businesses.

Economic Development and Industrial Structure:

As economies develop, their industrial structure tends to change:

- **Poor Countries:** More reliance on primary sector (high output and employment).
- **Developing Countries:** Increased importance of the secondary sector.
- **Developed Countries:** Tertiary sector becomes dominant (most output and employment).

The table mentioned likely shows the contribution of primary, secondary, and tertiary sectors to the GDP and employment in five countries.

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

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.

Firm Size

Measuring Firm Size:

- Number of employees
- Value of output produced
- Value of financial capital employed

Factors Influencing Firm Size:

- **Age:** Firms tend to start small and grow over time.
- **Financial Capital:** More capital allows for larger growth.
- **Business Type:** MNCs have greater access to capital for expansion compared to sole proprietorships.
- **Economies and Diseconomies of Scale:** Firms grow to benefit from lower costs (economies of scale) but may stop to avoid higher costs (diseconomies of scale).
- **Market Size:** Large markets allow firms to grow larger to meet the demand.

Small Firms

Reasons Why Many Firms Stay Small:

- **Limited Market Size:** Small demand restricts a firm's ability to grow (e.g., luxury goods, custom services).

- **Consumer Preferences:** Some consumers favour the personalized touch of small businesses (e.g., hairdressers).
- **Owner's Choice:** Owners may prefer a smaller, less stressful operation and avoid potential control loss with expansion.
- **Flexibility:** Small firms can adapt quicker to changing market conditions due to less decision-making bureaucracy.
- **Technical Factors:** Industries requiring low capital and lacking economies of scale allow small firms to compete effectively.
- **Financial Constraints:** Limited access to capital, especially for sole proprietorships, can hinder growth.
- **Location:** High transportation costs for bulky products can create local markets served by small firms.
- **Collaboration:** Small firms may cooperate for bulk purchases or services (e.g., farmers buying equipment).
- **Specialization:** Small firms can cater to niche markets or provide specialized services to larger firms.
- **Government Support:** Government aid aims to stimulate job creation, entrepreneurial skills, and potential growth of small firms.

Causes of Growth

Ways firms grow:

- **Internal Growth (Organic Growth):** Expanding the market for existing products or diversifying into new ones. This can involve:
 - Increasing production capacity at existing facilities.
 - Opening new branches/plants (e.g., McDonald's).
- **External Growth:** Merging or acquiring other firms. This allows for faster growth but comes with risks:
 - **Merger:** Combining two or more firms into one. There are three main types:
 - **Horizontal Merger:** Combining firms in the same industry (e.g., two restaurant chains merging).
 - **Vertical Merger:** Combining firms at different stages of production (e.g., a car manufacturer merging with a steel supplier).
 - **Conglomerate Merger:** Combining firms in unrelated industries (e.g., a media company merging with a food company).

- **Takeover:** One firm acquiring another, giving less control to the acquired firm.

Key Differences:

- **Speed:** External growth is generally faster.
- **Control:** Internal growth allows for more control over firm size.
- **Risk:** External growth risks exceeding the optimal firm size.

Mergers

Types of Mergers:

- **Horizontal Merger:** Combining firms in the same industry (e.g., car producers).
 - Motives: Economies of scale, increased market share, rationalization.
 - Risks: Diseconomies of scale, control difficulties, integration challenges.
- **Vertical Merger:** Combining firms at different production stages (e.g., supermarket merging with bakery).
 - Types:
 - **Backward:** Merging with a supplier (e.g., tyre manufacturer merging with rubber producer). Motives: Secure reliable supply, limit competitor access to supplies.
 - **Forward:** Merging with a distributor (e.g., oil company buying petrol stations). Motives: Secure outlets, improve product presentation and marketing.
 - Risks: Management challenges, size adjustments, sourcing/selling supplies externally.
- **Conglomerate Merger:** Combining firms in unrelated industries (e.g., electricity company merging with travel company).
 - Motive: Diversification to spread risk and support growth.
 - Risk: Management complexity, potential demerger (splitting the firm) later.

Impact on Consumers:

- **Potential Benefits:** Lower prices due to economies of scale, high-quality products, and innovation.
- **Potential Drawbacks:** Higher prices due to diseconomies of scale, reduced quality, and limited choices (from horizontal mergers) due to increased market power.

Economies of Scale & Diseconomies of Scale

Economies of Scale:

- Cost advantages due to larger production size (lower Long-Run Average Costs - LRAC).
- Two main types:
 - **Internal:** Advantages gained by an individual firm as it grows (larger plants, etc.). These come in various forms (discussed later).
 - **External:** Advantages available to all firms in a growing industry.

Diseconomies of Scale:

- Disadvantages of being too large.
- Two main types:
 - **Internal:** Rising LRAC for a firm due to excessive growth.
 - **External:** Increased LRAC for all firms in an overly large industry.

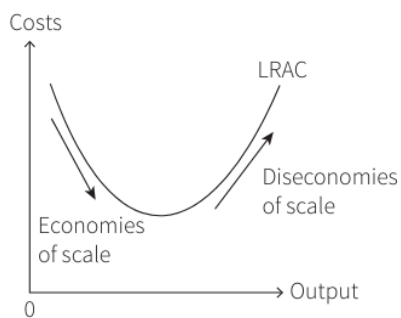


Fig. 20.2: Internal economies and diseconomies of scale

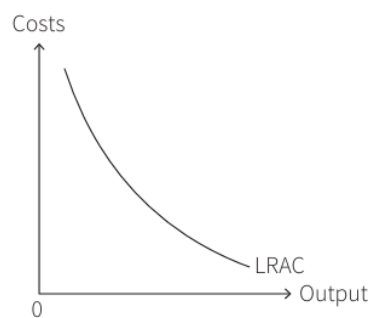


Fig. 20.3: Downward-sloping LRAC curve

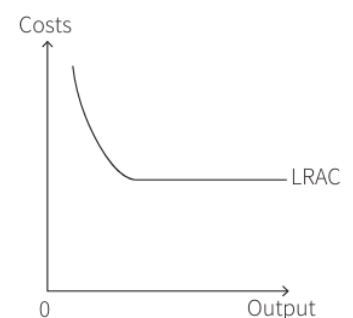


Fig. 20.4: L-shaped LRAC curve

- **(Fig. 20.2):** This is the most common scenario. Initially, average costs fall as the firm benefits from economies of scale. These economies of scale can arise from various factors like production process efficiency, bulk purchasing discounts, and managerial expertise. However, at some point, diseconomies of scale set in, causing average costs to rise. Diseconomies of scale can result from issues like managing a complex organization, increased bureaucracy, and communication challenges.
- **(Fig. 20.3):** This curve is seen in highly capital-intensive industries like oil refining. Economies of scale are significant and persist over a large output range due to factors like complex production processes and high upfront costs. Even at larger scales, inefficiencies may not outweigh the cost advantages.

- **(Fig. 20.4):** This curve applies to industries where minimum efficient scale (MES) is quickly reached. MES refers to the output level at which a firm achieves the lowest average cost possible. Once a firm surpasses MES, economies of scale are minimal, and average costs stabilize. This is often seen in industries with relatively simple production processes.

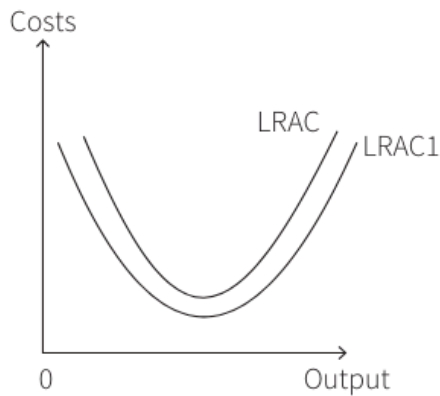


Fig. 20.5: The effect of external economies of scale

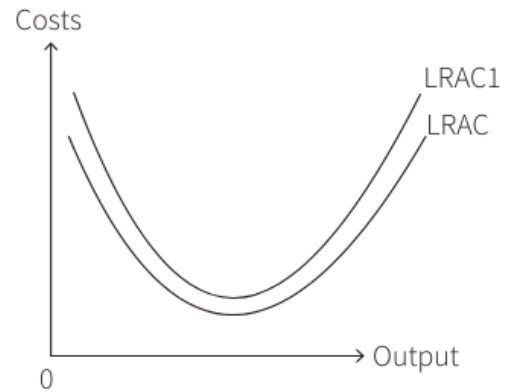


Fig. 20.6: The effect of external diseconomies of scale

(Figure 20.5):

- Caused by the growth of the entire industry, not a single firm's output.
- Effect: Downward shift of the LRAC curve for all firms in the industry.
- Examples:
 - Improved infrastructure due to industry growth (e.g., better transportation networks).
 - Availability of a larger pool of skilled labour.
 - Development of specialized suppliers and services.

(Figure 20.6):

- Caused by negative effects of industry growth.
- Effect: Upward shift of the LRAC curve for all firms in the industry.
- Examples:
 - Increased competition for resources (e.g., raw materials, labour) driving up prices.
 - Congestion and pollution due to industry activity.
 - Regulatory burdens imposed to address industry-wide issues.

Key Difference:

- Internal economies/diseconomies stem from a firm's own size.
- External economies/diseconomies stem from the industry's overall size.

Internal

Internal Economies of Scale:

- **Cost advantages gained by a firm as it increases in size.**
- **Reasons for Lower Average Costs:**
 - **Buying Economies (Economies of Purchase):** Discounts and better treatment from suppliers due to bulk purchases.
 - **Selling Economies (Marketing Economies):** Spreading costs of order processing, packing, and transportation over a larger volume.
 - This includes advertising efficiencies and potential discounts for bulk advertising buys.
 - **Managerial Economies:** Employing specialists in key areas (purchasing, accounting, HR, design) to improve efficiency and reduce costs.
 - **Labour Economies:** Specialization of labor to increase production efficiency.
 - **Financial Economies:** Easier and cheaper access to financing due to:
 - Lower borrowing rates from banks due to lower perceived risk and economies of scale in loan processing.
 - Ability to raise capital by selling shares (not available to all firm types).
 - **Technical Economies:** Ability to utilize large, advanced machinery that reduces production costs per unit.
 - **Research and Development Economies:** Dedicated R&D departments can develop cost-saving production methods and revenue-generating new products.
 - **Risk-Bearing Economies:** Diversification allows firms to spread risks across a product range and adjust resource allocation based on market fluctuations.

Internal Diseconomies of Scale:

- Disadvantages of a firm becoming too large, leading to rising average costs.
- Reasons for Increased Costs:
 - **Management Difficulties:**

- Increased complexity, requiring more management layers and meetings.
 - Higher administrative costs.
 - Slower response to market changes.
- **Communication Problems:**
 - Employees unaware of their full duties and opportunities.
 - Difficulty for employees to communicate effectively with management.
- **Poor Industrial Relations:**
 - Decreased worker motivation due to lack of belonging.
 - Increased risk of strikes and labour disputes due to:
 - Slower problem-solving processes.
 - Conflicts arising from diverse opinions in a large workforce.

External

External Economies of Scale (Economies of Concentration):

- Cost advantages enjoyed by all firms in a growing industry, due to industry-wide factors.
- Benefits from a Larger Industry:
 - **Skilled Workforce:** Availability of a larger pool of trained workers.
 - **Industry Reputation:** Region gains recognition for high-quality production (e.g., Bordeaux wine).
 - **Specialist Suppliers:** Ancillary industries emerge to cater to the specific needs of the main industry (e.g., tire industry for car industry).
 - **Specialist Services:** Universities, banks, and transport providers develop specialized services for the industry.
 - **Specialist Markets:** Dedicated marketplaces emerge for buying and selling industry-specific goods (e.g., corn exchanges).
 - **Improved Infrastructure:** Government and private sectors invest in better infrastructure (roads, electricity, airports, docks) to support the industry.
- **Geographic Concentration:** These benefits are more likely to occur when firms in the industry are located close together.

External Diseconomies of Scale:

- Disadvantages experienced by all firms in a growing industry, due to industry-wide factors.
- Drawbacks of an Oversized Industry:
 - **Congestion:** Increased traffic due to more workers and materials transportation, leading to:
 - Longer commutes.
 - Higher transport costs for firms.
 - Potential decrease in worker productivity.
 - **Resource Competition:** Increased competition for:
 - Key locations (driving up site prices).
 - Capital equipment (increasing equipment costs).
 - Labour (leading to higher wages).

Chapter 21: Firms & Production

Demand for Factors of Production

Factors of Production Employed:

- The type and amount of factors (land, labour, capital, entrepreneurship) used depend on:
 - **Product:** A car factory is capital-intensive (uses a lot of machines), while a salon is labor-intensive (uses a lot of human labour).
 - **Factor Productivity:** A firm may switch factors based on their relative productivity or cost changes.
 - **Substitutes:** If a substitute factor (e.g., machines for workers) becomes cheaper or more productive, a firm may use more of that substitute.
 - **Complements:** If a complementary factor (e.g., aeroplanes for airlines) becomes cheaper or more productive, a firm may use more of both factors (aeroplanes and labour like pilots).

Short-Run vs. Long-Run Changes:

- **Short-Run:** At least one factor is fixed (cannot be changed quickly). This is often the physical space (factory size).
 - Labour can be adjusted more easily in the short run (e.g., overtime).
 - Raw materials and equipment changes might be limited by contracts or availability.
- **Long-Run:** All factors of production can be adjusted (e.g., building a new factory to increase space).

Combining Factors for Efficiency:

- Firms aim to find the right combination of factors to maximize productivity (output per unit of input).
- Example: A hair salon shouldn't have too many dryers for too few stylists, or vice versa.
- Finding the optimal combination considers factors like:
 - Specialization of workers.
 - Training requirements.
 - Ability of one worker to use multiple machines.

Overall, firms need to strategically decide on the factors of production to use, considering both short-run and long-run constraints, while aiming for the most productive combination to achieve their goals.

Factors Affecting Demand for Capital Goods:

- **Price of Capital Goods:**
 - A rise in price reduces demand.
- **Price of Other Factors:**
 - A rise in the price of labour (substitute) may increase demand for capital goods (firms replace labour with machines).
 - A rise in the price of a complement (used together) may decrease demand for capital goods (less investment if both factors become expensive).
- **Profit Levels:**
 - High profits give firms the ability and incentive to invest in capital goods.
- **Corporation Tax:**
 - Lower corporation tax allows firms to retain more profits for investment.
- **Income Levels:**
 - Rising income increases consumption, encouraging firms to invest in expanding capacity to meet future demand.
- **Interest Rates:**
 - Lower interest rates:
 - Increase borrowing affordability for investment.
 - Reduce the opportunity cost of investing compared to saving.
- **Confidence Levels:**
 - Business confidence in future sales leads to higher investment in capital goods.
- **Technological Advancements:**
 - Development of more efficient machinery encourages firms to invest in new capital goods.

Additional Notes:

- Land is a factor of production with its own demand-influencing factors like:
 - **Productivity:** More fertile land or prime locations (city centres) command higher demand and rents.
 - **Scarcity:** Growing demand for resources like water puts pressure on prices as supplies become limited.

Demand for Factors and Economic Development:

- As economies develop, the structure of industries changes, impacting the demand for factors of production. (Referred to in Chapter 20)
- A typical pattern observed:
 1. **Agricultural Reform:** Resources shift from agriculture to low-cost manufacturing.
 2. **Manufacturing Growth:** Resources move towards higher value-added manufacturing.
 3. **Service Sector Dominance:** The service sector eventually becomes the largest contributor to output. (This is the case in most developed countries. India is an exception, with a large service sector before a significant manufacturing base.)
- **Global Service Sector Share:** As of 2016, the service sector makes up a significant portion (63%) of global economic output.

Factor Use by Different Sectors:

- Different industries have varying needs for factors of production.
- Examples:
 - **Chemical Industry:** Highly capital-intensive (requires a lot of machinery and equipment).
 - **Agriculture:** Land-intensive (requires a lot of land) and water-intensive (requires a lot of water).

Labour-intensive or capital-intensive production

Reasons for Labour-intensive Production:

- **Abundant Labour Supply:** Low labour costs in countries with a large workforce.
- **Unsuitable for Capital Equipment:** Small producers with low output may not need the high production capacity of machines.
- **Handmade Products:** Catering to a niche market willing to pay more for handcrafted goods perceived as higher quality and meeting specific needs.
- **Customization and Personalization:** Labor-intensive methods allow for bespoke products and potentially provide a more personalized customer experience.
- **Flexibility:** Workers can adapt to changes in production methods or output levels more easily than machines.

- **Employee Feedback:** Workers can provide valuable insights for improving production and product quality.

Shifting Between Labour-intensive and Capital-Intensive Production:

- **Capital Price Increase:** Firms might switch to labour if the cost of capital goods rises significantly and labour can perform the tasks equally well.
- **The Trend Towards Capital-Intensive Production:** Generally, advancements in technology make capital goods:
 - More affordable.
 - More productive (technical economies of scale – lower average cost per unit).
 - Capable of producing consistent quality (less prone to human error).
 - Reliable & absent of human qualities (don't go on strike, get sick, or get tired).
- **Drawbacks of Capital-Intensive Production:**
 - Requires maintenance and can break down.

Thus, while labor-intensive production has its advantages, the trend favours capital-intensive methods due to continuous technological improvements and the resulting economic benefits.

Production and productivity

Production vs. Productivity:

- **Production:** The total quantity of goods and services produced.
- **Productivity:** The efficiency of production, measured as output per unit of input (often output per worker hour).

Key Differences:

- Production focuses on **how much** is produced.
- Productivity focuses on **how efficiently** it's produced.

Example:

- If worker output per hour increases, but the number of working hours stays the same, production increases (more total output) but there's no change in productivity (output per hour is constant).

- Conversely, productivity can increase (fewer worker hours needed for the same output) while production falls (due to factors like unemployment reducing the workforce).

Economic Development Impact:

- As economies develop:
 - Production and productivity tend to rise due to technological advancements and education improvements.
 - Productivity increases can be so significant that total output grows even with fewer working hours.

Chapter 22: Firms costs revenue & objectives

Calculating the Cost of Production

Total Cost (TC):

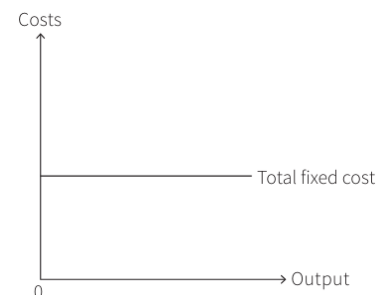
- Definition: The total monetary expense a firm incurs in producing a certain level of output.
- Equation: $TC = FC + VC$
 - **FC** = Total Fixed Cost (explained below)
 - **VC** = Total Variable Cost (explained below)

Average Total Cost (ATC):

- Definition: The cost per unit of output, reflecting both fixed and variable costs.
- Equation: $ATC = TC \div Q$
 - **TC** = Total Cost (as defined above)
 - **Q** = Quantity of output produced

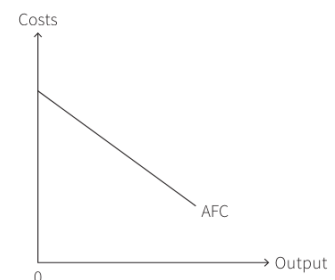
Fixed Cost (FC):

- Definition: Costs that remain constant regardless of the level of output produced in the short run. These costs are incurred simply by being in business and cannot be adjusted quickly.
- Examples: Rent, salaries of administrative staff, loan payments.



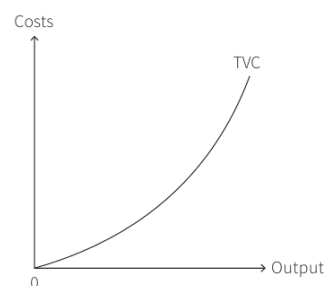
Average Fixed Cost (AFC):

- Definition: The fixed cost per unit of output. As the level of output increases, the average fixed cost spreads out (gets divided among more units), typically decreasing.
- Equation: $AFC = FC \div Q$
 - **FC** = Total Fixed Cost (as defined above)
 - **Q** = Quantity of output produced



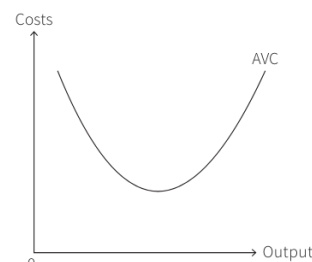
Variable Cost (VC):

- Definition: Costs that change in proportion to the level of output produced in the short run. These costs are directly related to the production process.
- Examples: Raw materials, direct labour costs, utilities used in production.



Average Variable Cost (AVC):

- Definition: The cost per unit of output associated with variable costs. It reflects how efficiently a firm is using its variable inputs to produce each unit of output.
- Equation: $AVC = VC \div Q$
 - VC = Total Variable Cost (as explained earlier)
 - Q = Quantity of output produced



Understanding the Relationships Between Costs:

- **Total Cost (TC):** As output increases, total cost will always increase due to rising variable costs. More raw materials, labour, and other variable inputs are needed to produce more units.
- **Average Total Cost (ATC):** Initially, when output increases, average total cost (ATC) tends to decrease. This is because the total fixed cost (FC) is being spread out over a larger number of units (Q). This phenomenon is known as **economies of scale**. However, eventually, diminishing returns set in, and as output continues to rise, the cost per unit to produce each additional good (AVC) might start to rise. When this happens, and AVC outweighs the decreasing AFC, the average total cost (ATC) will eventually start to increase as well.
- **Average Fixed Cost (AFC):** Average fixed cost (AFC) always decreases as the level of output (Q) increases. This is because the total fixed cost (FC) remains constant, but it's being divided among a larger number of units (Q) as production increases.
- **Average Variable Cost (AVC):** AVC typically decreases initially as output increases due to economies of scale (variable costs are spread out over more units). However, in the long run, AVC may eventually start to increase due to diminishing returns (adding more variable inputs might lead to smaller output increases).

Calculating Revenue

Firms rely on revenue, the income they receive from selling their products, to survive and thrive.

Total Revenue: The total amount of money a firm earns by selling its products or services.

- **Average Revenue:** This is calculated by dividing the total revenue by the quantity of goods sold, and is essentially the price at which a good or service is sold.

The Relationship Between Revenue and Output in Competitive Markets:

In perfectly competitive markets, where many firms sell identical products and have no significant influence on the overall market price, a key concept applies:

- **Price Taker:** Each firm acts as a price taker, meaning they must accept the prevailing market price set by supply and demand dynamics. They have little control over the price. This is true to all except monopolies, who are predominantly price makers and can subsequently decide the prices of their products on their own.
- **Impact on Revenue:** As a result, in these competitive markets, a firm's total revenue will consistently rise as they sell more units (quantity) because the price per unit remains constant. They're essentially selling more products at the established market price.

This stands in contrast to firms with some market power (less competition), who might experience diminishing returns on revenue as they increase output. In those cases, increasing output might lead to price reductions to attract more buyers, affecting total revenue.

Objectives of Firms

- **Profit sacrificing:** sacrificing some profit to achieve other goals.
- **Profit maximisation:** making as much profit as possible.

And so businesses operate with various goals in mind, and these objectives can evolve over time.

1. Survival:

- A primary concern, especially for new firms entering competitive markets.
- Focuses on covering costs and establishing a foothold until brand recognition grows.
- Can also be a crucial objective for established firms during economic downturns.

2. Growth:

- Expanding a firm's size offers potential advantages:
 - **Economies of scale:** Lower average costs due to increased production volume.
 - **Favourable purchasing terms:** Bulk discounts on raw materials.
 - **Easier access to financing:** Larger firms are seen as less risky by lenders.
- Growth can be achieved through:
 - **Organic growth:** Internal expansion of the business.
 - **Mergers and acquisitions:** Combining with other firms to gain market share and reduce competition.

3. Profit Objectives:

- Two main approaches:
 - **Profit Maximization:** Aiming for the highest possible profit over time.
 - **Profit Satisficing:** Setting a target profit level that satisfies shareholders while potentially pursuing other goals.
- Profitability is crucial for business sustainability and reinvestment for future growth.

4. Social Welfare Objectives:

- More prominent in state-owned enterprises or some private firms with a social conscience.
- Focuses on:
 - **Providing essential goods/services at affordable prices.**
 - **Considering social and environmental impacts of business practices.**
- Balancing social welfare with profitability can be complex, but some responsible practices can enhance a firm's reputation and long-term success.

Key Takeaways:

- Business objectives are multifaceted and can change based on circumstances.
- Balancing short-term goals like survival with long-term aspirations of growth and profitability is essential.
- Some firms consider social and environmental factors alongside traditional profit-driven objectives.

Thus, understanding a business's objectives is crucial for most stakeholders, including investors, employees, and consumers. These goals influence the firm's decisions and strategies, shaping its market presence and overall impact.

- Effects of Changes in Profits

High Profits:

- **Incentivize new businesses:** Attract entrepreneurs to enter the market due to the potential for profit.
- **Fuel business growth:** Provide resources for firms to invest in equipment, expand operations, and potentially hire more skilled workers.
- **Improve access to financing:** Make firms more attractive to investors for buying shares and to banks for granting loans.

Low Profits:

- **Short-term impact:** Firms might initially wait and see if the situation improves.
- **Long-term impact (if profits remain low):**
 - **Production cuts:** Firms may reduce output to minimize losses.
 - **Business closures:** Some firms might exit the market altogether if profitability is unsustainable.

- Ways of Increasing Profit

Increase revenue by raising prices (when demand is inelastic) or increasing demand through better products, marketing, and diversification.

Reduce costs by minimizing waste, improving efficiency, and leveraging economies of scale through mergers or takeovers.

Chapter 23: Market Structure

Competitive Markets

- **Market structure** describes the characteristics of a market that influence how firms behave.
- More competition is associated with a **higher number of sellers and buyers**.
- In a competitive market, each seller has a **small market share** and limited influence on price.
- Buyers can easily **switch between sellers** in competitive markets.
- Competitive markets typically allow for **easy entry and exit** of firms.

Competitive Market Behaviour

Price pressure: Competitive markets push firms to keep prices low to avoid losing customers to rivals with similar products.

Product differentiation: Firms may innovate and improve their products to gain a competitive edge.

Demand response: Competitive firms react quickly to changes in demand by adjusting production levels.

Easy entry and exit: This characteristic allows new firms to enter the market, potentially reducing profits for existing firms.

Profit dynamics:

- **Normal profit:** In the long run, competitive markets lead to firms earning only enough profit to cover costs and stay operational.
- **Supernormal profit/Abnormal profit:** During periods of high demand, firms may earn more than normal profit. This attracts new firms entering the market.
- **Losses:** When demand falls, firms may experience losses, forcing some to exit the market, ultimately leading to higher prices and restoring normal profit levels.

Monopoly Market

- Characteristics
 - 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 they arise
 - **Cost Advantages:** A single firm might achieve such efficiency (economies of scale) that it can drive out competitors by offering lower prices.
 - **Mergers and Acquisitions:** When firms merge or acquire each other, it can consolidate the market and lead to a monopoly.
 - **Natural Monopolies:** Certain industries, like utilities or public transportation, might be natural monopolies where a single provider is more efficient due to infrastructure costs.
 - **Resource Control:** Owning a critical resource, like your example of gold mines, can give a firm exclusive control.
 - **Government Grants:** Governments may grant monopolies to regulate specific industries or to encourage innovation through patents and copyrights.
- Why they continue

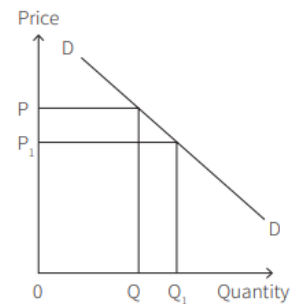
Barriers to Entry:

- **Legal Barriers:** Patents, copyrights, and government regulations can restrict new firms from entering the market.
- **Economies of Scale:** A monopoly's large-scale production allows them to achieve lower unit costs, making it difficult for smaller firms to compete on price.
- **High Capital Requirements:** Setting up a business in some industries requires significant investment in machinery and equipment, hindering new entrants.
- **Brand Loyalty:** Established brands can have a loyal customer base, making it challenging for new firms to attract customers.
- **Access to Resources and Distribution Channels:** Monopolies may have exclusive access to raw materials or distribution channels, limiting options for new entrants.

Barriers to Exit:

- **Long-Term Contracts:** Existing contracts with suppliers or customers can make it difficult for firms to exit a market.
- **Sunk Costs:** Investments in specialized equipment or advertising cannot be recovered if a firm leaves the market, discouraging exit.

- Behaviour of Monopolies
 - **Supernormal Profits:** Barriers to entry allow monopolies to sustain above-average profits in the long run.
 - **Limited Awareness:** Potential competitors may not be aware of the high profits, hindering entry.
 - **Supply Control vs. Demand Influence:** Monopolies control supply but cannot dictate demand.
 - **Price-Quantity Trade-Off:** Monopolies can set price, but this determines the quantity sold. Conversely, they can set a target quantity, but the market dictates the price at that level.
 - **Demand Curve:** The demand curve reflects consumer willingness to pay at different price points.



The concept of the price-quantity trade-off is particularly insightful. It highlights how a monopoly's pricing strategy directly impacts the volume of goods sold.

- Performance of a Monopoly

Criticisms of Monopolies:

- **Inefficiency:** Lack of competition can lead to monopolies becoming complacent and not striving for efficiency.
- **Reduced Supply and Higher Prices:** Monopolies may restrict output to artificially inflate prices.
- **Lower Quality Products:** With limited choices, consumers may be forced to accept lower quality goods.
- **Slower Innovation:** Monopolies might have less incentive to develop new products without competitive pressure.

Potential Benefits of Monopolies:

- **Economies of Scale:** Large-scale production can lead to lower unit costs and potentially lower prices for consumers.
- **Reduced Duplication:** In certain industries (e.g., railways), a single provider can avoid wasteful infrastructure investments.

- **Funding for Research & Development:** High profits can allow monopolies to invest in innovation and develop new products.
- **External Pressure for Innovation:** The potential for new entrants can incentivize monopolies to maintain a competitive edge through innovation.
- **Occurrence of Monopolies**
 - **Market Definition Matters:** Narrower product and geographic definitions can reveal more monopolies.
 - **Example:** A single gas supplier in a nation creates a national monopoly, but there might be competition within the broader energy sector.
 - **Local Monopolies:** A single convenience store on an estate can be a local monopoly, despite competition in the broader town's food retail sector.