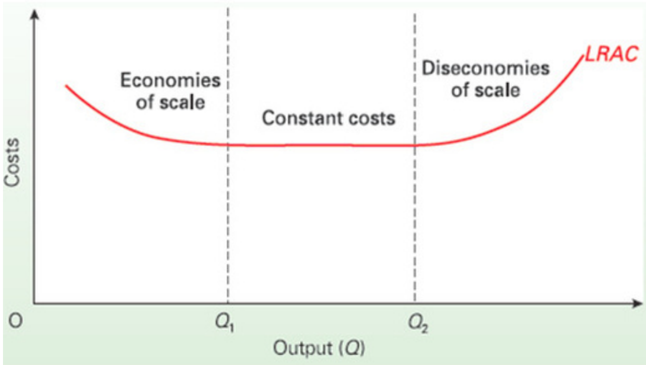
The Long-Run Average Cost (LRAC) curve

This curve is U-shaped due to economies of scale, constant returns to scale and diseconomies of scale. Economies of scale occur when AC falls as the scale of production increases. This is depicted on the LRAC curve as the initial downward sloping part of the curve. Then, the curve reaches the Minimum Efficiency Scale(MES), which is the output level at which the minimum AC occurs and begins. The AC now remains constant even as the scale of production increases and the level of output rises. As the scale of production increases, output reaches a level at which it causes AC to begin to rise. This is what gives the LRAC curve its U-shape and is illustrated below:



Internal Economies of Scale

These occur when average costs of production fall due to the growth in the scale of production within a firm regardless of economic activities outside the firm. They occur when the percentage increase in output is greater than the percentage increase in input. The main internal economies of scale:

- Technical economies- Larger firms can employ and combine more efficient specialised machinery that should reduce the average costs of their production, giving them an advantage over smaller firms because smaller firms cannot usually afford to employ such expensive but highly productive units of capital. Within large firms, there is also a greater scope for the specialisation of labour. A more productive workforce, attained by splitting the production process into many separate tasks, will reduce average costs.
- Marketing economies- As firms expand, they can spread their advertising budgets over larger outputs. Also, larger firms can purchase their factor inputs on bulk at negotiated discount prices.
- Managerial economies- Larger manufacturers can employ qualified specialists to manage and supervise production, thus cutting managerial costs per unit. This will increase labour productivity and reduce average costs.
- Financial economies- Larger firms are usually perceived to be more credit worthy and therefore have greater access to credit facilities with more favourable rates of borrowing.

Internal Diseconomies of Scale

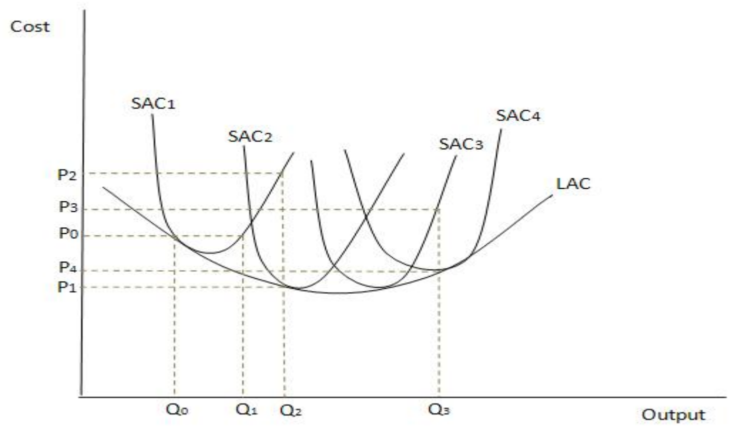
These occur when average costs of production increase due to the growth in the scale of production within a firm regardless of economic activities outside the firm. They occur when confronted with the problem of short run and one-off types of production, therefore, they cannot set up their capital and labour for specialised production.

- Geographical limitations- Products with great bulk in relation to value demand transport costs that are high relative to production costs. In such cases, the market for the products are likely to be local. E.g. bread, bricks and coal.
- Personal services- Industries which provide a personal service are usually characterised by many small firms. Where an element of personal attention required by the purchase is an important part of the service, then it is impossible to introduce standardisation and mass production methods. E.g. law, accountancy, architecture and hairdressing.
- Luxury items- The market may be limited by income and wealth. Expensive sports cars, luxury yachts and high-quality jewellery are examples of goods produced by small firms for very restricted prestige markets.
- Disintegration- There is a tendency for mass production industries to disintegrate into many specialist firms each supplying some standardised part to a large assembly plant. It is possible for the industry's total requirements of some particular component to be supplied by one relatively small firm.
- Joint ventures- Co-operation between smaller firms may lead to the setting up of jointly owned enterprises which enable them to enjoy many of the economies of scale obtained by larger firms. E.g. farmers' co-operatives allow farmers to obtain the benefits of bulk buying and the collective ownership of large units of capitals.

LRAC Envelope curve

The long run average cost curve is normally derived from a series of short run average cost curves.

Initially, a firm is producing 300 units of output. Its average costs would equal point A on SATC1. In the short run, at least one factor input is fixed, and therefore, if the firm wishes to increase output to 600 units the firm must move along the short run average costs curve to point B. However, in the long run, the firm can increase all the factors and therefore instead of moving up an existing cost curve, the firm will move to a larger scale production and therefore, a new lower short run average cost curve SATC2 at point C. There could be an infinite number of plant sizes and therefore an infinite number of SATC curves. The Long Run Average Cost (LRAC) curve therefore consists of a series of points on all these different SATC curves. Thus, the LRAC curve is the envelope curve of the series of SRAC curves.



UNIT 3: THE GROWTH OF FIRMS

Firms grow in different ways.

Internal/Organic growth is growth by internal expansion. In this case, the firm increases its production and sales independently of the actions of other firms. This may be through expansion on an existing site through capital investment and/or employing more labour, geographical expansion, product diversification or simply increased advertising and promotion of its existing product range.

External growth/Growth by integration is growth by joining with other firms by mergers or acquisitions. When a merger occurs, then two or more firms have agreed to combine to create a new firm. Another term for this is amalgamation and it occurs when the Boards of Directors of the two companies, with the support of their respective shareholders, agree to merge their two companies. However, when an acquisition occurs, it means that the firm acquired loses its identity and is absorbed into the firm carrying out the takeover. This may be a hostile or voluntary acquisition. E.g. Primark bought Littlewoods for £409 million. A hostile acquisition bid occurs whenever one company attempts to acquire another without the approval of the target company's board of directors.

Types of Integration

Vertical integration- A merger that takes place between firms engaged in different stages of the productive process.

- Backward vertical integration- This is when the merger impetus is towards the source of supplies. For example, a large manufacturer of tea may take over tea plantations. It is often carried out so that the firm may exercise a much greater control over the quality and quantity of its supplies. It may also have the aim of restricting the availability of such supplies to a competitor and absorb the intermediate profit margins.
- Forward vertical integration- This is when the movement is towards the market outlets. For example, oil companies now control most of the world's petrol stations. Reasons for this include the desire to secure an adequate number of market outlets, raise the standards or said outlets or a counter action if a major competitor has made a move to take over the outlets. For instance, in 2005, the Indian firm Apeejay Surrendra Group bought Typhoo tea from Premier Foods for £80m. Apeejay grew tea in their Indian plantation and buying Typhoo who blends and packages tea should result in benefits associated with forward vertical integration.

Horizontal integration- The merger of firms engaged in producing the same kind of good or service and at the same stage of the production process. This is the most common type of merger in recent years. E.g. British Steel and Dutch steel maker, Hoogovens merged in 1999 to form Corus. This form of integration occurs for various reasons:

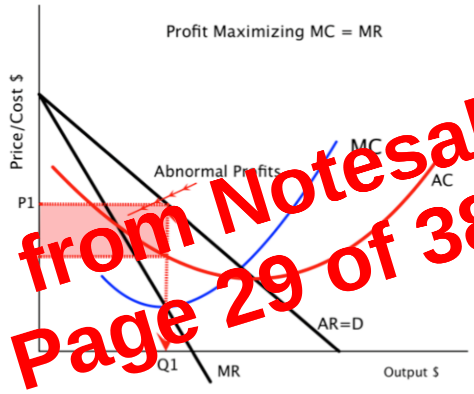
- Market domination
- Allows greater specialisation
- Economies of scale
- It may be a defensive move to counter expansion by rival firms.
- It may be necessary to combat international competition.

generation of products whilst launching the current range. Unless the new entrants have new ideas or can exploit a new market segment, they are likely to fall.

- **Limit entry pricing-** It may be possible for firms to hide the existence of abnormal profits by entry limit pricing. This involves deliberately setting low prices to deter potential rivals. It may be in the interest of all the firms to do this, in which case, a kind of restrictive practice might be the barrier to entry.
- **Barriers to exit-** In some industries, there are significant costs when a firm decides to leave. These closure costs arise due to redundancies to workers, landscaping the site, meeting environmental clear-up costs, disposal of equipment, etc. The US steel industry was in this position in the late 1990s as it was unable to shut inefficient plants down. Barriers to exit can also act as barriers to entry because if firms know that it is difficult to leave an industry, they might be discouraged to try and enter it.

Equilibrium position:

A monopolist will produce where MC=MR to maximise profits, at output oX. At this level of output, the firm will charge a price per unit oP and incur a cost per unit oC. The firm will earn supernormal profits. No other firm can enter the market due to barriers to entry and the monopolist is a price maker; therefore, this is the long run position of a monopolist. Monopoly power is the ability to earn long run supernormal profits.



Price discrimination

Price discrimination occurs when a firm sells an identical product to different consumers at different prices for reasons not associated with cost. Firms will engage in price discrimination to increase the revenue they receive for their goods and in turn, increase their profits. Common examples of price discrimination include student discounts at the cinema, or barbers and hairdressers charging lower price to senior citizens.

Conditions for price discrimination:

1. The firm must have a degree of market power if it wishes to price discriminate. Perfectly competitive firms are not able to practice price discrimination since they are price takers.

2. Price discrimination requires the firm to be able to split the total market into distinct groups or (in the case of perfect price discrimination) into individual consumers.

3. Buyers in different markets must have different levels of willingness to pay as price discrimination is only effective if the individual consumers or distinct groups have a different willingness to pay for the product. Some consumers or groups must be less price-sensitive than others.

However, in contestable markets, supernormal profits cannot be made so there is no dynamic efficiency for firms in the market.

In the real world…

The theory of contestable markets is often seen as an alternative to the traditional, Neo-classical, theory of the firm. Perfectly contestable markets can deliver the theoretical benefits of perfect competition, but without the need for many firms.

Price and Non-Price Competition

Price Competition exists when producers compete based on price; by developing different price strategies to beat the competition. They generally set the prices of their products at the same or lower levels than that of the competitors to gain market share by increasing quantity demanded. For example, Coca-Cola and Pepsi are close competitors, thus, they often engage in price wars. The major disadvantage of price competition is that the competitors have flexibility to change the prices of products.

Non-price Competition focuses on the factors that affect demand other than the price of the product. In non-price competition, customers cannot be easily lured by lower prices as their preferences are focused on various factors, such as features, quality, service, and promotion. Thus, producers focus on these factors to increase the sale of products. However, a marketer who is competing on non-price bases cannot ignore the prices set by the competitors as price remains a significant marketing element.

Pricing strategies available to firms with market power

Price discrimination- read notes on price discrimination.

Two-part pricing- pricing strategy in which consumers are charged a fixed fee for the right to purchase a product, plus a per-unit charge for each unit purchased. This works well when the firm faces homogeneous demand for its product i.e. when all consumers have similar demand for the product.

Block pricing- pricing strategy in which identical products are packaged together to enhance profits by forcing customers to make an all-or-none decision to purchase

Commodity bundling- the practice of bundling several different products together and selling them at a single "bundle price".

Peak-load pricing- pricing strategy in which higher prices are charged during peak hours than during off-peak.

Why firms use non-price competition- check notes under oligopoly.

The "Surrogate Competitor": Regulation can act as a form of surrogate competition – attempting to ensure that prices, profits and service quality are like what could be achieved in competitive markets. Fear of action by OFT and other regulators may prevent anticompetitive behaviour (i.e. there will be a deterrent effect)

Protecting the public interest: The key role of competition authorities around the world including the European Union is to protect the public interest, particularly against firms abusing their dominant positions. A firm holds a dominant position if its power enables it to operate within the market without taking account of the reaction of its competitors or of intermediate or final consumers. For instance, in the summer of 2014, the Competition and Markets Authority (CMA) recommended a full competition inquiry into UK retail banks claiming that the market for current accounts was not sufficiently competitive to work in the consumers' interest.

Anti-Competitive Practices

1. Dumping, where a company sells a product in a competitive market at a loss. Though the company loses money for each sale, the company hopes to force other competitors out of the market, after which the company would be free to raise prices for a greater profit.
2. Exclusive dealing, where a retailer or wholesaler is obliged by contract to only purchase from the contracted supplier.
3. Price fixing, where companies collude to set prices, effectively dismantling the free market.
4. Refusal to deal, e.g., two companies agree not to use a certain vendor
5. Dividing territories, an agreement by two companies to stay out of each other's way and reduce competition in the agreed-upon territories.
6. Limit pricing, where the price is set by a monopolist at a level intended to discourage entry into a market.
7. Tying, where products that aren't naturally related must be purchased together.
8. Resale price maintenance, where resellers are not allowed to set prices independently.
9. Religious / minority group doctrine, where businesses must apply tribute to a significant (normally religious) part of the community to engage in trade with that community. (e.g., A business that does not comply will be 50% worse off than the competitor if they do not comply with the tribute demanded by just 20% of the community)
10. Absorption of a competitor or competing technology, where the powerful firm effectively co-opts or swallows its competitor rather than see it either compete directly or be absorbed by another firm.
11. Subsidies from government which allow a firm to function without being profitable, giving them an advantage over competition or effectively barring competition
12. Regulations which place costly restrictions on firms that less wealthy firms cannot afford to implement
13. Protectionism, tariffs and quotas which give firms insulation from competitive forces
14. Patent misuse and copyright misuse, such as fraudulently obtaining a patent, copyright, or other form of intellectual property; or using such legal devices to gain advantage in an unrelated market.
15. Digital rights management which prevents owners from selling used media, as would normally be allowed by the first sale doctrine.