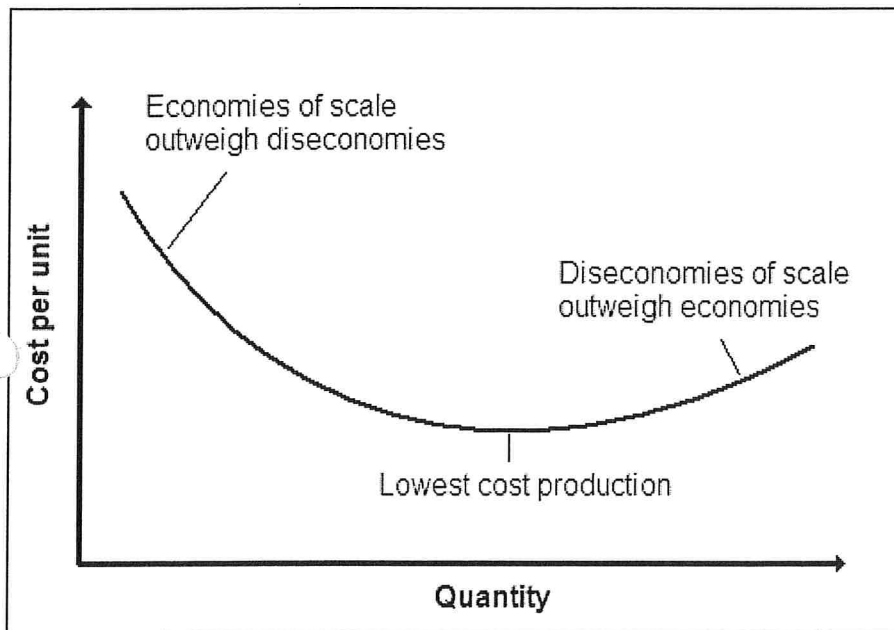


## Economies of Scale

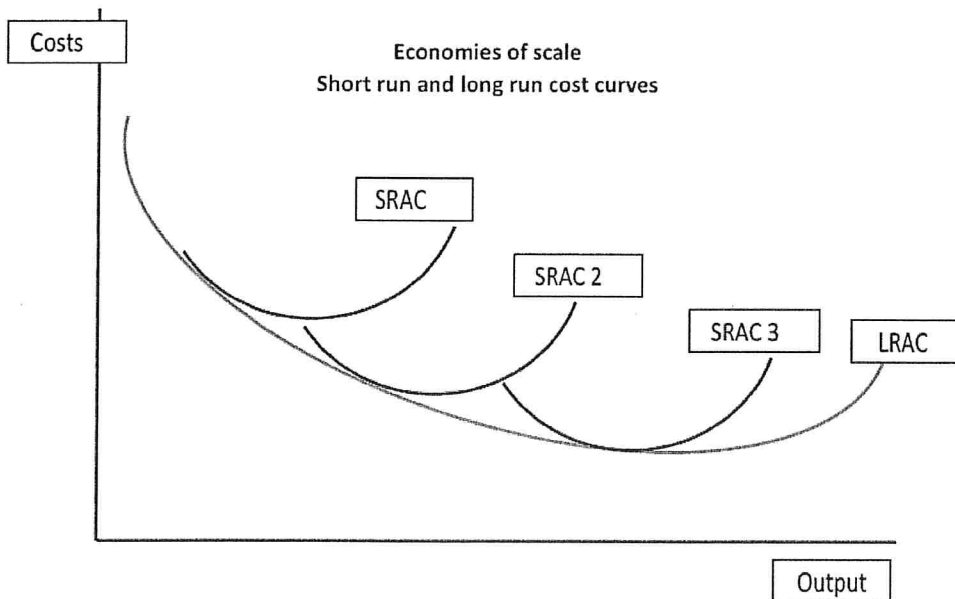
Scale	
Economies of scale	
Internal economies of scale	
External economies of scale	
Diseconomies of scale	

### Short Run Average Cost Curve



## Long Run Average Cost Curve

Each business's long run average cost curve is made up of a series of short run average cost curves. As a business grows it moves from one short run average cost curve to another short run average cost curve, each one being progressively lower and so reducing average costs of output. This is represented in the graph below.



Imagine a building site with one foreman and one worker. The worker's role is digging trenches; the foreman's role is to oversee the digging of trenches. The foreman earns £10 an hour, the worker's wage is £5 an hour. The worker is capable of digging five metres of trench in an hour. With one worker, each metre of trench would therefore cost £3: i.e. the £5 wages of the worker and the £10 wages of the supervisor divided by 5 metres dug – equalling £3 per metre.

If another worker was taken on then we would now have 10m of trench per hour at a total cost of £20 (£10 + £5 + £5). Therefore the cost per metre of the trench is now £2. With three workers, we now have 15 metres of trench at a total cost of £25; which gives a cost of £1.66 per metre. This represents decreasing average costs in the short run.

In the long run the building site could, instead of using workers and spades, use a digger. This would allow a move on to another short run average cost curve – lowering potential average costs even further. This is an example of how economies of scale reduce average costs of production.

### **Internal economies of scale**

- Purchasing Economies
- Technical Economies
- Managerial (and Specialisation) Economies
- Financial Economies
- Marketing Economies

### **Other Benefits of size**

- Reduced Risk: - Less dependence on one product
- Increased Capacity Utilisation: - Increases the proportion of maximum possible output being used

### **External Economies of Scale**

“The advantages of scale that benefit a whole industry and not just an individual business.”

- a. Supplier economies
- b. Financial economies
- c. Educational economies
- d. Labour economies
- e. Ancillary and Commercial Services
- f. Co-operation

### **Benefits of economies of scale**

- Lower unit costs
- Better profit margins
- Barriers to entry

**MATHS MOMENT**

$$1 + 1 = 2$$

Calculate the average costs for the following levels of output. What evidence can you find of economies and diseconomies of scale?

Output	Total costs (£)	Unit costs (£)
100	2000	
200	3000	
300	4000	
400	5000	
500	6800	
600	9000	

Table 6.2 *Economies and diseconomies of scale*

Complete Thornton's and Tangle Teezer past paper questions.

## Diseconomies of Scale

When diseconomies occur, the average costs of production **rise** with output.

Diseconomies occur when the scale of production increases beyond the minimum efficient scale (MES).

### Diseconomies of Scale Example:

Maybe the foreman is capable of looking after 10 workers effectively and ensuring that each digs five metres per hour; but if there were 15 workers average output may start to fall. This happens because the supervisor is not able to supervise all the workers and ensure that each is working to their maximum capacity and some may take advantage of this and work more slowly. Now there are increasing average costs of output. We have diseconomies of scale.

### Internal Diseconomies of Scale

- Coordination issues: the larger an organisation becomes, the more difficult it is to coordinate.
- Communication issues: the efficiency and effectiveness of communication break down as the organisation grows.
- Motivation issues: in larger organisations, it can be more difficult to satisfy and motivate workers.

### What can managers do about diseconomies of scale?

Diseconomies of Scale	Corrective Action Required
Poor Motivation	
Poor Communication	
Poor Coordination	

## External Diseconomies of Scale

The increase in cost which any business in an industry might enjoy as the industry grows.

- **Overcrowding in industrial areas:**
- **Increased price of resources:**

## In Summary

- Business growth generally creates **economies of scale**
- Business growth can also produce **diseconomies of scale** (which raise unit cost)
- As long as the economies outweigh the diseconomies, unit cost will fall and the firm will be more profitable
- Firms can adopt strategies to minimise the negative effects of diseconomies of scale

## Economies of scale and stakeholders

- Which stakeholders are the winners and which are the losers when considering the impact of economies of scale?

## Survival of small businesses

- Small businesses are unlikely to benefit in any major way from economies of scale (they will be less efficient and have higher unit costs than their bigger competitors), therefore, how do they survive?
- Flexibility
- Target market size
- Population density
- Quality of product and service
- Customer loyalty
- Changing structure of the economy
- Growth of the tertiary sector (many services can be delivered effectively on a small scale)
- Niche markets (may not be possible to expand)
- Low cost structure (i.e. due to not holding stock or possibly working from home)