Edexcel (B) Economics A-level

Theme 2: The Wider Economic Environment

2.3 Productive Efficiency

2.3.2 Capacity utilisation

Notes

Full capacity and spare capacity

Capacity utilisation is the extent to which the productive capacity of a business is used. In other words, it is the percentage of total capacity which is being achieved.

It is calculated by:

$$\frac{\textbf{Actual level of output}}{\textbf{Maximum possible output}} \quad \textbf{X 100}$$

Capacity utilisation can be used to measure productive efficiency. When a business is operating at a higher capacity, average costs of production fall, and this could result in the firm becoming more competitive. This encourages firms to operate as close to full capacity as possible.

A firm operates at full capacity when all resources available are being used to their maximum potential. When a firm has spare capacity, some resources are not being used to their maximum potential.

Advancements in technology and increases in the level of investment are two factors which can increase the maximum capacity of a firm.

Implications of under- and over-utilisation of capacity

Some of the reasons why a firm might operate at below maximum capacity include changes in the level of demand in the economy (a lower level of demand could cause firms to operate below maximum capacity) and a loss of market share. It could also be due to inefficiency.

Another reason why a firm might operate at below maximum capacity is that the maximum capacity had increased, perhaps through more advanced technology, and this has not yet been met by an increase in demand.

Spare capacity is not always a problem, since the firm has excess demand. Solutions to this include encouraging employees to work overtime, employing more staff or spending less time on maintaining production equipment.

Operating at full (or near to) capacity could mean that quality is affected due to a rushed production process. It could also mean that employees become demotivated and stressed due to the increasing pressure on them to work at a high capacity. Moreover, by operating at full capacity, the firm removes its ability to quickly respond to changes in demand. If demand increases, the firm can only increase production to meet demand if it has spare capacity.

When capacity is under-utilised, fixed costs are divided by a lower level of output. As a result, average fixed costs per unit of output increase, so profitability falls and prices might increase. Firms then become less competitive.

However, there are some benefits to under-utilised capacity. For example, the firm has more flexibility to change its level of output as and when it is needed, and the firm has time to fix machines without stopping production.

Capacity is over-utilised when the firm attempts to produce more than its capital is capable of. This could mean average costs increase due to falling levels of efficiency. This could be due to breakdowns and overcrowding in the production process.

Ways of improving capacity utilisation

A firm can improve its capacity utilisation by entering new markets, expanding the range of products, and using promotions to increase demand. Moreover, the firm could produce products from other businesses in the form of own brand goods. Improving the capacity utilisation of a firm is linked to increases in productivity.