



Skoolumy

CAMBRIDGE A LEVEL ECONOMICS TOPICAL ESSAY QUESTIONS

**COST, PRODUCT, INTEGRATION, ECONOMIES OF
SCALE AND RETURNS TO SCALE**

PAST QUESTIONS

1. Explain what is meant by diminishing returns and economies of scale, and consider whether diminishing returns can occur only in perfect competition and economies of scale in imperfect competition. [12]

2. Analyse and consider the extent of the link between marginal cost, diminishing returns and economies of scale. [13]

3. Supermarket power

One supermarket chain in a European country is responsible for about 30% of the market share of grocery sales. Recently its strategy has been to open smaller supermarkets in local areas rather than concentrate on large stores on the edge of towns. The expansion in local areas is not always welcomed.

Residents miss the diversity of different types of shops, farmers and suppliers complain that the supermarket pays little for their products, and small local shops fear its growth. A senior manager from the supermarket agreed that suppliers were made to suffer the main effects of the economic recession as the supermarket insisted on substantial reductions in prices from its suppliers. The supermarket gains the benefit of bulk buying and the large sales to the supermarket are a major source of revenue for the suppliers.

However, if the supermarket were to cancel its order it would leave the supplier facing difficulties. Suppliers sometimes, therefore, have little choice but to reduce their prices. The supermarket is able to act as a monopsonist, particularly when purchasing supplies from meat and poultry farmers, milk producers and wine growers. Some consumers choose not to shop at the supermarket because they believe some of its policies towards suppliers are unfair.

In 2012, the supermarket's defence was that it planned to create 20 000 new jobs which would help the economy. The Prime Minister said 'the supermarket is the

biggest private sector employer in the country and its commitment to creating jobs is fantastic news at a difficult time for the economy.’ However, a report in January 2012 stated that the supermarket did not pay what was regarded as a living wage to all its employees. This was despite the fact that its chief executive was paid the equivalent of US\$ 10.9 million in 2011.

The company reported that it planned substantial expenditure to improve its existing shops and open new ones. It needed the profits from its monopsony position to fund this new investment. Some consumers said that the expansion would eventually be likely to harm all shoppers, by reducing options and driving other businesses out of the market.

Source: London Evening Standard 2012; Daily Telegraph 2012

(a) Explain what is meant by an economy of scale. [3]

(b) Explain how economies of scale are likely to affect the price and output of a firm such as the supermarket. [4]

4. Macroeconomic decisions: microeconomic effects.

In 2011 many countries experienced a recession. Most industries, even monopolies, in those countries saw a decline in demand, consumer spending and profits. However the decline was less severe in some firms, for example those in the food and beverage industry, than for others, for example those in the leisure industry. This fall in consumer spending and in consumer confidence might have been caused by anticipated job losses as governments announced reductions in public sector expenditure.

Governments decided to reduce expenditure because they had very large budget deficits. Apart from public sector employment reductions the macroeconomic measures they introduced included fewer subsidies, tax increases and a more restrictive monetary policy. Tax increases did not help businesses. For example they made it more necessary for firms to make the control of any credit they gave a

priority, and to monitor their cash flow very carefully. Increasing prices to match indirect tax increases in order to retain profit levels was not always possible when consumer demand was reduced. The alternative of reducing costs was also a problem. Some argued that firms operating with a high proportion of fixed costs found the market conditions increasingly difficult as their revenues failed to recover and the possibility for further cost reductions became more limited. Others thought that firms with a higher proportion of variable costs faced greater difficulties.

Some governments also reduced investment allowances and subsidies to firms. These tax-free allowances enabled firms to deduct some of the investment cost from what they had to pay in tax. However, a reduction in the allowances had no effect on those industries that did not invest in new equipment. It did harm small and medium-sized enterprises that wanted to buy new machinery, or undertake research in order to become more efficient, or improve their products.

The situation was not helped by increased restrictions imposed by the government on banks' ability to lend. These restrictions meant borrowing for house purchases was more difficult and this again reduced consumer expenditure.

(adapted from The Guardian)

(a) Suggest, using the concept of income elasticity of demand, why the decline in profits was less severe during the recession in the food industry than in the leisure industry. [4]

(b) Do you support the opinion in the information that a recession is likely to be worse for firms with a high proportion of fixed costs than firms with a higher proportion of variable costs? [6]

5. Analyse, with the aid of a diagram, whether there is a link between diminishing marginal returns and economies of scale. [12]

6. In many cities worldwide, newspaper publishers compete with each other. Some types of newspapers are sold, but publishers also produce others that are distributed free of charge. Many people and companies pay to advertise in the free newspapers.

Explain the different ways that economists classify profits and consider whether it is possible to make a profit from a newspaper that is distributed free. [12]

7. The government in Namibia stated that electricity prices should cover cost and should also be based on the principle of allocative efficiency.

Discuss whether this approach to pricing can be supported in theory. [25]

8. These statements come from the same journal article:

World population has grown to 6.5 billion, with an increase of more than 4 billion since 1950. The number of people starving has increased in the last 10 years. 31.6% of the urban population live in slums and 42 countries face food emergencies.

Urbanisation could be a solution to poverty, disease and malnutrition owing to economies of scale that arise.

Source: Royal Society of Arts Journal, August 2005

Discuss whether you agree with the idea that urbanisation necessarily produces economies of scale and is, therefore, a solution to poverty. [15]

9. Large organisations face no competition. There is, therefore, no choice. Small competitive businesses are a better means of providing for consumers' needs.

Do you agree with this argument? [25]

10. In 2010 the directors of a major UK chocolate firm, worth over £10 billion, recommended that its shareholders accept a takeover offer from a large US food firm. The firm would not then be controlled in the UK. It was feared that some production in the UK would cease.

(a) Analyse what economic theory suggests might be the outcome of such a takeover for the enlarged firm and its workers. [12]

(b) Discuss the possible macroeconomic outcomes for a domestic economy of such a takeover by a foreign firm. [13]

11. The North Sea oil industry

The UK drills for oil in the North Sea. In 1999, production was at 4.5 million barrels a day. However, as the oil in the easily accessible oil fields was used up, production fell steadily from 1999 until it reached 3.3 million barrels a day in 2005.

Nevertheless, in 2006, many in the oil industry did not consider it to be in decline. Indeed, some of the industry's problems were associated with an expanding industry, not a declining one. The managers complained, for example, about the shortage of skilled labour and the high rents of the oil rigs. Investment increased by 30% in 2006 and it was hoped that production would rise in 2007.

The UK government was keen to keep production high as the industry supported 250 000 jobs and had a large impact on the trade balance of the UK. One way to keep production high is to explore for new oil fields. Another way is to use every drop of oil from the existing oil fields. Sometimes a large company leaves an oil field which still has substantial amounts of oil because although it is technically possible to extract the oil, it is not profitable to do so. However, a smaller company is often able to drill profitably for the oil when it is unprofitable for a large company.

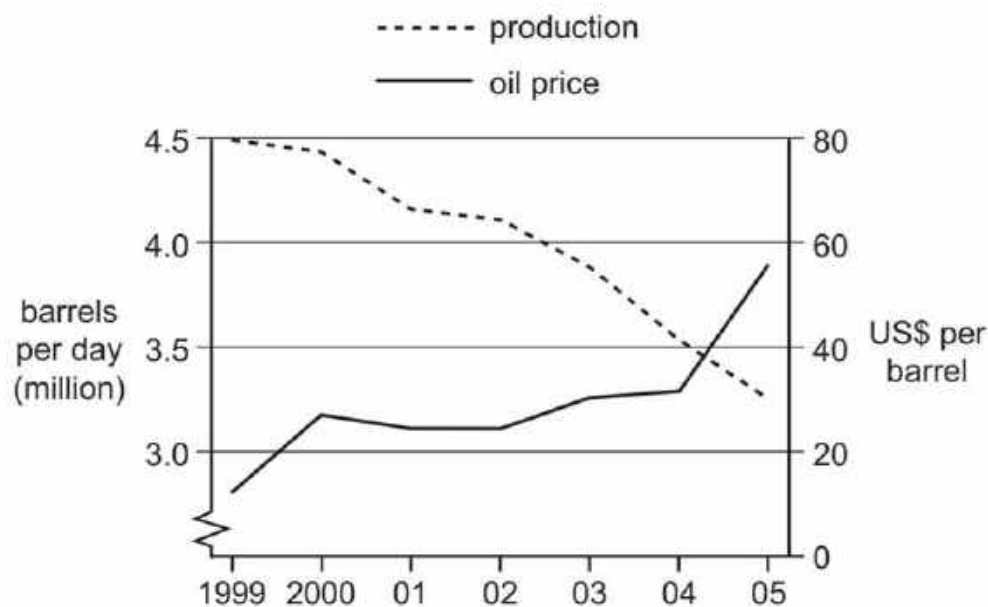
In view of this, the UK government encouraged smaller and more enterprising firms. In 2005, 152 licences to drill were given to 99 companies. These new licences gave companies exclusive rights to develop the more inaccessible oil fields for six years rather than four years as before. Furthermore, the government also changed

the rules on access to pipelines – which are often owned by large companies – so that smaller companies could get their oil to the market more easily.

The Chancellor of the Exchequer (Minister of Finance) also made changes. In 2002, he raised the tax on oil company profits to 40% from the usual company rate of 30%, and raised it again in 2005 to 50%. The justification given was that the oil companies made huge profits.

The industry is more dependent than ever on large expensive technological advances and innovation. Most of the government's reforms recognised this.

Fig. 1 North Sea oil industry: production and price



Discuss whether the increase in the number of small firms drilling for oil contradicts the usual economic explanation of the existence of small firms. [6]

12. Banks have to merge to reap economies of scale.

The Deputy Prime Minister of Singapore said ‘To be strong, banks need to be big; to become large enough Singapore banks will have to merge.’ He argued that Singapore’s banks need to be large to compete with foreign banks, especially as they are a core part of Singapore’s economy. ‘The industry is characterised by economies of scale. Small banks do not have the resources to compete either in quality of service or in returns to shareholders, and their costs are higher.’

The Deputy Prime Minister pointed out that the largest international bank had an estimated 100 million customers but the largest of Singapore’s five banks had just five million customers. Switzerland, which had a GDP and population about twice that of Singapore, had only two big banks after merger. The Netherlands had just three banks, while even Australia had only four.

Even though a merger among Singapore’s five banks would still create a small entity by international standards, there would be advantages. However, the Deputy Prime Minister assured Parliament that a merged bank would not be allowed to use its market power to engage in monopolistic or anti-competitive practices. Any such bank ‘would still have to provide affordable banking to low-income Singaporeans.’

(a) (i) The Deputy Prime Minister stated that ‘banking is characterised by economies of scale’.

Define the term ‘economy of scale’. [2]

(ii) Give two examples of economies of scale that might occur in banking. [2]

(iii) Identify two other general reasons, apart from economies of scale, which the Deputy Prime Minister gave for a merger. [2]

(b) Identify and explain the possible disadvantage of a merger which was discussed in Parliament. [3]

(c) How convincing is the argument in favour of the banking merger presented by the Deputy Prime Minister? [5]

13. A government allows the merger of two large firms in the same industry.

With the help of a diagram, evaluate the view that this merger should not have been allowed. [20]

MARK SCHEME

1. Analysis of the Law of Diminishing Returns and economies of scale and a recognition that the two can be used together, diminishing returns in the short run and economies of scale in the long run. It is more likely that economies of scale occurs in imperfect competition where large scale is possible.

L4 (9–12) For a sound comment with good explanation of the analysis and a clear understanding of the difference. Economies of scale occur in imperfect competition, diminishing returns occur in both.

L3 (7–8) For a competent comment but with more limited explanation of the analysis.

L2 (5–6) For a brief explanation and with a weak discussion of the links.

L1 (1–4) For an answer which has some basic correct facts but includes irrelevancies. Errors of theory or omissions of analysis will be substantial.

2. Explanation of marginal cost, diminishing returns and economies of scale. There are three links to discuss m.c to diminishing returns; m.c to economies of scale; diminishing returns to economies of scale. There is a link in the short run between marginal cost and marginal product and thus to diminishing returns; there is only an indirect link between diminishing returns in the short run and economies of scale in the long run (via LRAC curve); there is a theoretical long-run marginal cost but it is not directly linked to economies of scale and the short run marginal cost is not linked to economies of scale.

L4 (9–13) For a sound explanation of the analysis and a clear understanding of the principles involved with a good attempt with a conclusion.

L3 (7–8) For a competent comment of all three concepts and brief referenced to links.

L2 (5–6) For a correct explanation of part of the analysis, with little or poor consideration of the links.

L1 (1–4) For an answer which has some basic correct facts but includes irrelevancies. Errors of theory or omissions of analysis will be substantial.

3. (a) An economy of scale is where the increase in output leads to a reduction in average cost per unit (1), long run (1) they can be either internal or external (1).

(b) Bulk buying (1), benefit to supermarket – lower cost, lower price (1), higher output (1); benefit to supplier – large revenue (1).

4. (a) It is likely that the food industry deals in more essential products, with lower income elasticity, possibly, and less effect on sales and revenue. This might explain the differences in changes in profit although it is uncertain how the relative costs in leisure and food were affected.

(b) Explanation of differences between fixed and variable costs. Possibly the situation may be worse if the fixed costs form a high proportion of the costs and cannot be covered nor, in the short run, avoided. (Theory assumes fixed costs paid for before production and only need to cover variable costs. Practice probably is that fixed costs are paid monthly. But either way still have to pay for fixed costs) However, it depends on the level of profits. Firms with lower fixed costs may still be affected badly if the profit levels were not high. Reserve one mark for a conclusion.

5. Explanation of the two terms and an analysis of the link between the short run average cost curves reflecting diminishing returns, and the long run average cost curves reflecting economies of scale. [12]

L4 For a good explanation of both the terms with examples and a clear link between the short and long run. The diagram will be clear and accurate. Must provide a diagram to gain Level 4. (9–12)

L3 For a competent analysis of the terms maybe concentrating on economies of scale with a weaker link between the short run and long run, or no diagram of the link. (7–8)

L2 For a more limited analysis with no link or no diagram. (5–6)

L1 For an answer which has some basic correct facts but includes irrelevancies. There will be errors of theory or omissions of analysis. (1–4)

6. Question mentions different ways economists classify profit. Answer should include a mention of revenue, cost and also of the difference between normal and abnormal profit. The ‘free’ newspaper is only free to the consumer. It is not free to the advertiser. Any profit is made from the advertising revenue.

L4) For a clear explanation of the difference between revenue and cost and an explanation of the meaning of normal and abnormal profit together with a recognition that the publisher obtains revenue from the advertisers. (9–12)

L3) For an explanation of revenue, cost and normal profit but uncertain comment about the advertising. (7–8)

L2) For a limited attempt but probably without the normal profit distinction. (5–6)

L1) For an answer which has some basic correct facts but includes irrelevancies. There will be errors of theory or omissions of analysis. (1–4)

7. Candidates should recognise that economic theory does not always suggest that charges should always cover cost – depends which costs, and whether short or long run, and whether operating with the aim of profit maximising. Apart from this sometimes firms are deliberately subsidized and this is allowed in theory. Candidates should then discuss the principles of allocative efficiency and debate whether economic theory indicates that to aim for such efficiency is the best solution.

L4) For an explanation of the terms in the statement, a clear discussion of the analysis of the different aspects of the theory and a clear discussion of the principles of allocative efficiency, with a reasoned conclusion. (18–25)

L3) For a competent explanation which does not fully analyse the terms or deal with all the issues. There will be some discussion but the evaluation will not be fully developed or extensive and the conclusion may be weak or missing. (14–17)

L2) For an undeveloped explanation of some of the terms with some attempt at discussion of the links between them but with very limited evaluation and no real conclusion. (10–13)

L1) For an answer which shows some knowledge but does not indicate that the question has been fully grasped. The answer will have some correct facts but include irrelevancies. Errors of theory or omissions of analysis will be substantial. (1–9)

8. Two parts to the answer. One deals with whether urbanisation necessarily leads to economies, the other deals with whether urbanisation, even if this occurs, necessarily is a solution to poverty. The answer will involve explanations of urbanisation, how economies might occur, how poverty may or may not be alleviated.

(L4) For a good discussion with a reasoned discussion of the argument and clearly structured answer which reaches a conclusion. [12–15]

(L3) For a fair discussion but undeveloped answer which does not present a well-structured reasoned response. [9–11]

(L2) For a limited but acceptable attempt to consider the proposition but with little development. [6–8]

(L1) For an answer which has some basic correct facts but includes irrelevancies. Errors of theory or omissions of analysis will be substantial. [1–5]

9. Discussion of the link between large organisations and imperfect markets. Candidates should then discuss the extent to which there is competition in imperfect markets. Many imperfect markets do have competition, and in practice, even monopoly does. A sub-conclusion on this part of the statement should be made. A discussion should then follow on whether small businesses are more in tune with consumers' needs. The conclusion to this will depend on the outcome of the first part and could involve comment on consumer and producer sovereignty.

L4) For a reasoned and clear discussion with accurate development of theory and good links to the argument together with a reasoned conclusion.

[18 - 25]

L3) For a clear description together with limited elaboration of the analysis or imprecise links to the argument. There will be some discussion but the evaluation will not be fully developed or extensive.

[14 -17]

L2) For a correct explanation but weak or ill-explained links to the argument. The explanation will be undeveloped explanation with some attempt at analysis but only limited evaluation.

[10 -13]

L1) For an answer which shows some knowledge but does not indicate that the question has been fully grasped. The answer will have some correct facts but include irrelevancies. Errors of theory or omissions of analysis will be substantial.

[1- 9]

10. (a) Candidates need to recognise that this is a large multinational organisation. The takeover will increase the original company's costs:—fixed and variable, but it might make economies of scale possible. Some parts of the production will be duplicated and it is stated that some parts would have to be closed to achieve these economies. For the worker, the takeover might result in redundancies, moving to

a new location, increased competition for any likely promotion. Up to 8 for discussion of the company. (12)

L4 For a sound analysis and discussion with clear understanding of the principles involved and a reasoned conclusion. 9–12

L3 For a competent analysis but more limited discussion and development but still with a conclusion. 7–8

L2 For a correct explanation, probably concentrating on the probability of economies of scale and without concluding comment. 5–6

L1 For an answer which has some basic correct facts but includes irrelevancies. Errors of theory or omissions of analysis will be substantial. 1–4

(b) Candidates should discuss the likely effects on the economy in terms of injections and withdrawals. £10 billion has been spent and production may become more efficient. However, possible redundancies would have a likely impact on the workers' spending and government payments for the unemployed. There would also be a possible effect on the balance of payments depending on whether the profits remain in the UK or are sent to the US. (13)

L4 For a good discussion with a reasoned comment of both possible injections and withdrawals and clearly structured answer with a conclusion of the likely significance of each 9–13

L3 For a fair discussion but undeveloped answer of both injections and withdrawals or a fuller answer of either injections or withdrawals 7–8

L2 For a limited but acceptable attempt to consider the impact on the economy but with little development and no overall conclusion 5–6

L1 For an answer which has some basic correct facts but includes irrelevancies. Errors of theory or omissions of analysis will be substantial. 1–4

11. Against usual economic explanation – not personal, niche market, local
– requires huge investment

– employs large no. of people

but for usual economic explanation – small firms often do need government encouragement and support and special concessions
so without that they may not survive.

– profits are large so firms are attracted to the industry.

Should be an overall conclusion even if it is stated that the conclusion is uncertain.
5 max without a conclusion.

12. (a) (i) Definition of economy of scale – reduced average costs as output increases resulting from increased size of plant or business. [2]

(ii) Any two – e.g. managerial, technical, risk-bearing, marketing, labour, use of capital/assets or external economies. [2]

(iii) Two from need to compete with foreign banks, inability of small banks to compete on quality of service or returns to shareholders. [2]

(b) The merged bank will have a monopolistic position, which may result in the exploitation of the customers, particularly those on lower incomes. An explanation of how monopolistic companies might exploit customers should be given. [3]

(c) Need first to identify the evidence, which consists of statements on the number of banks in other countries and the size of those countries. Size is sometimes stated in terms of population and GDP, sometimes in terms of geographical area. There is also a statement about the number of customers of other banks (2 marks).

For a discussion of the validity of using the number of banks with reference to population, geographical area. GDP and/or population may be thought a stronger measure of comparison than geographical area but this may be questioned. Countries with low GDP and high population may still need banking services, nothing is said about the distribution of the population. A comparison by geographical area is not useful. The issue is the number of banking companies, not the number of local branches. The latter is never mentioned. A comment on the validity of using the number of customers as a measure should be given.

The advantages are that there will be economies of scale, a better ability to compete with foreign competition. Some inference about lower costs might be made. Nothing is stated about the performance of the other larger banks to which reference is made and there is no substantiation of the idea of economies of scale. The underlying presumption is also that the banking system is a strong part of the economy, but this is not elaborated on in the article. Candidates should make an overall judgement. [5]

13. AO1 and AO2 out of 14 marks. AO3 out of 6 marks.

Indicative content

Responses may include:

AO1 Knowledge and understanding and AO2 Analysis

- This merger is an example of horizontal integration where two firms merge at the same level in the production cycle.
- Mergers of two large firms producing similar goods, at the same level in the production cycle is likely to lead to a monopoly market structure.
- Monopoly providers, through market dominance, can raise prices and drive smaller firms out of business. A diagram might provide supporting analysis.
- Given the nature of the goods provided, this merger might also lead to significantly less choice.

- A large, dominant organization might have less incentive to operate efficiently and X inefficiencies might occur.
- Analysis of the potential negative impact on the local labour market.

NOTE: Limit of Level 2 if no relevant diagram

AO3 Evaluation

- Merging firms might argue that an increase in size will lead to more opportunities to provide a wide range of goods and therefore more consumer choice.
- Also, it is possible that the merger will lead to an increase in dynamic efficiency and this increase would allow long term more investment and ultimately lower prices. A supporting diagram can be provided.
- Such a merger will enable the firms to benefit from economies of scale. For example, reducing managerial inefficiencies. This could also lead to lower prices.
- Any potential negative effects of this merger can be accounted for by government intervention and regulation when the merger takes place.
- A conclusion should refer to the preceding analysis and then make some attempt to make a judgement whether, on balance, the merger should proceed.

Accept all valid responses.

AO1 Knowledge and understanding and AO2 Analysis 14

AO3 Evaluation 6