Examiners' Report

June 2013

GCE Economics 6EC03 01

Introduction

General observations

Entries increased by over 10% with 56% of candidates retaking.

The supported choice questions were perceived by many to be challenging, but they were based on specification areas and the well prepared students were able to pick up all the marks. The main problems were the more synoptic questions (question 3 with the straight line demand curve) and question 7 (consumer surplus) causing a surprising amount of difficulty.

The data questions were seen as more accessible than June 2012, with question 9 (eggs) far more popular than question 10 (gas and electricity markets). The reason for the avoidance of question 10 was a high mark question on tacit collusion (10(c)) and a regulation question for 16 marks (10(d)). There were no 'straightforward' questions such as those on price and non-price strategies (June 2012, 10(d)) and candidates had to think their way through issues rather than rely on pre-learnt responses. This made it an effective paper and there were some excellent, innovative answers balanced out by some very weak ones at the other end of the spectrum.

Question 1

A clear distinction must be made between sales maximisation, AR = AC (or TR=TC) from other objectives of firms. It is best to provide a reason or a benefit of such options. Candidates should use a diagram where possible, and in discounting incorrect answers should ensure that more economics is provided rather than repeating the key in a negative format. For example,' it is not C because that is revenue maximisation' does not contribute any economics to the answer.

Diagrams are a very effective way of picking up the marks for all questions such as this which are based on an important model of microeconomics and where no diagram has been provided in the question. There is one mark for finding AR=AC (if not already given in the definition) and one for showing the changes in price and output when compared to an equilibrium such as profit maximisation.

Although not intended as a difficult question, there was much confusion in the mind of candidates on the sales maximisation objective when contrasted with revenue maximisation and even in some cases, sales revenue maximisation. Many were distracted by the option C, revenue maximisation, and gave a formula and diagrams to no effect.

Defining monopoly did not earn a mark - it was necessary to define 'monopoly power' to give a helpful definition. There does not need to be a definition in the answer, but as there are many key terms in this question it would be difficult to know which term to define. Therefore use a wider range in answers than just relying on definitions - such as diagrams.

1 A firm with monopoly power decreases the price of its product to increase its market share up to the output at which it just earns normal profit. Which of the following is the best description of the firm's objective?

(1)

A Profit maximisation in the short run

B Increased market contestability

C Revenue maximisation in the long run

D Sales maximisation

E Loss minimisation

Answer   D

Explanation

(3)

A monopoly is when a firm is the leader in a market and it has a concentration ration of 40%. If The firm looks to increase it's sales as the demand would increase as the product now costs less money.

It cannot be A as the prices has been decreased whilst costs will presumably remain the same. The extract also states that it is being decreased to normal profits

ResultsPlus
Examiner Comments

Definition of monopoly power is not convincing. Why 40%? The rationale is not convincing for sales maximisation - however there is one mark for 'demand would increase as product is costing less' (1) The knock out does not contribute any economics understanding. Total 1 for key and 1 for explanation 1+1=2/4 marks

ResultsPlus
Examiner Tip

If you are going to knock out incorrect options you must ensure you do not just say that the opposite is true. You need to give some fresh economic understanding.

Here is an example that earns the four marks easily.

A Profit maximisation in the short run

B Increased market contestability

C Revenue maximisation in the long run

D Sales maximisation

E Loss minimisation

Answer D

Explanation

(3)

A firm in monopoly power is a price setter. They aim to maximise profits by producing where MC = MR. This point gives output q^* and price p^*. At this output and price they make supernormal profit. Sales are maximised at the point where AC = AR. At this point the quantity is q_2 and the price reduced to p_2. At this point the firm only makes normal profit. Normal profit is the minimum required profit to keep factors of production in their current use.

Answer C is wrong as revenue is maximised where MR = 0

Question 2

This question bore some similarity to the diseconomies of scale question number 8 in the January 2013 6EC03 paper. Because many students had worked through the question there were many positive benefits for them in this question.

On all questions on economies of scale, mention the long run. Drawing a diagram can do much of the work, especially if labelled 'LRAC'.

> **2** Lufthansa, a German airline owned British Midlands International (BMI), a loss-making airline. Lufthansa announced plans to sell BMI in November 2011. Which one of the following is the most likely reason for this sale?
>
> (1)
>
> **A** The BMI part of the business was facing increasing marginal returns
>
> **B** BMI was experiencing falling marginal costs
>
> **C** To benefit from conglomerate integration
>
> **D** To increase market concentration
>
> **E** To reduce diseconomies of scale
>
> Answer E
>
> Explanation
>
> (3)
>
> Diseconomies of scale is where businesses split or sell off dividends to gain more finance.
> They do this inorder to stop long run average costs increase while output increases.
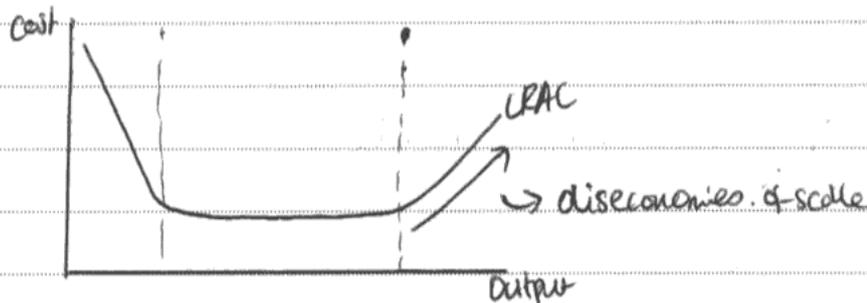
ResultsPlus
Examiner Comments

Key correct (1) Definition is not right (do not sell off dividends) but the diagram can earn the definition mark (1) There is a reason for selling off (raising finance) (1) 1+2=3

ResultsPlus
Examiner Tip

The biggest problem with diseconomies of scale questions is in application of the concept with two negatives – costs fall when output falls. This is best shown on a diagram with arrows, clearly pointing out a fall in output and a fall in LRAC.

Here is an effective answer, which identifies many of the points made in the mark scheme.

A   The BMI part of the business was facing increasing marginal returns

B   BMI was experiencing falling marginal costs

C   To benefit from conglomerate integration

D   To increase market concentration

E   To reduce diseconomies of scale

Answer | E |

Explanation

(3)

Diseconomies of scale occurs when a firm is producing beyond its minimum efficient scale on the long run average cost curve. An example of a diseconomy of scale is where the firm has become so big, the manager loses control of the decision-making of the company.
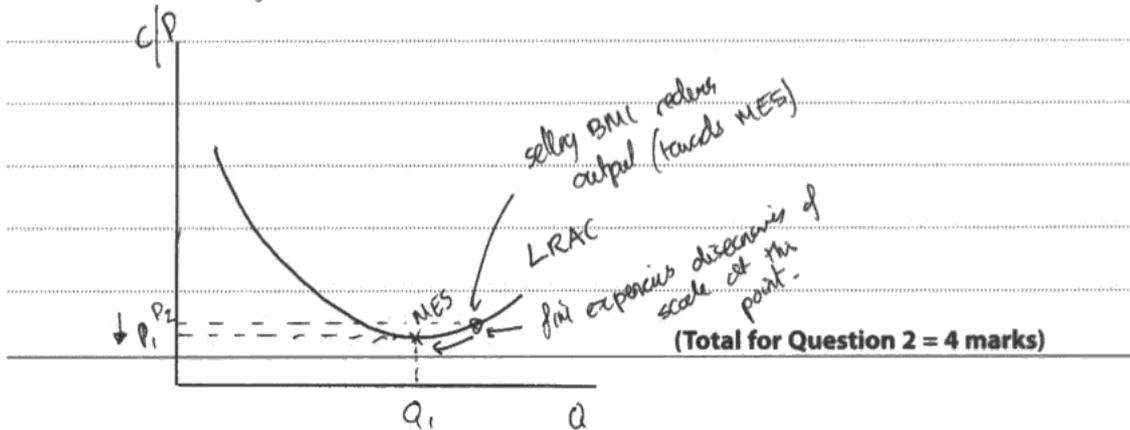
(Total for Question 2 = 4 marks)

ResultsPlus
Examiner Comments

Key correct Definition has long run (1) Reasons (1) Diagram adds to answer by showing falling costs as output falls (1) There is reference to the text by explaining the effect of selling of BMI (1) This could earn the maximum marks more than one way - eg looking at decision making being easier 1+3 = 4
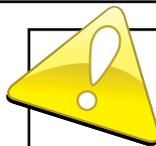
ResultsPlus
Examiner Tip

Arrows on diagrams add real value, in explaining changes.

Question 3

This question tested an area that is synoptic – the changing elasticities along a demand curve were learned in Unit 1. It was somewhat surprising that so many students struggled with this question, and the main mistake was in confusing revenues and profits. Many chose option E.

Ignoring the word 'revenue' in the question was a costly mistake for many, and as with the consumer surplus question (question 7), this also illustrates the importance of synoptic understanding of the whole specification. The most effective way to answer the question was to annotate the diagram or to supply a new diagram illustrating the relationship between AR (the demand curve shown in the question), MR and TR.

The use of the number in the diagram could earn a simple data use mark – multiplying price and quantity and the two points indicated was the only mark that many students managed to earn.

Eliminating incorrect keys does not always earn marks.

3 A pizza restaurant faces the following demand curve (D). Which one of the following is necessarily true?

(1)

Price per pizza
£10

£6
£5

D

0   400 500   1000
Quantity of pizzas per week
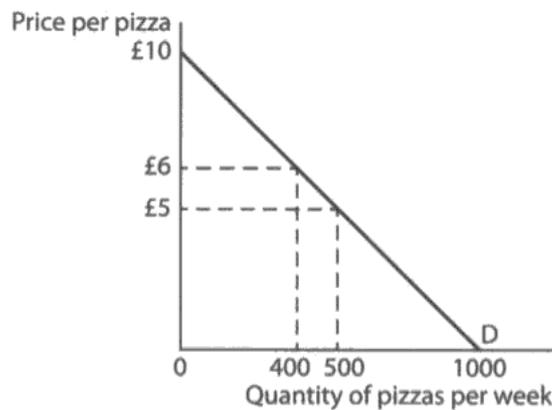
2400
2500

~~A~~ Marginal revenue will be positive then negative as price falls

~~B~~ Revenue maximisation occurs at a price of £6 $MR = 0$ $MR = \frac{\Delta TR}{\Delta Q}$

~~C~~ Sales are maximised at a price of £6

D Average revenue will equal zero where price elasticity of demand is unitary

      $AR = 0.$

E Cutting the price from £6 to £5 will increase profits

Answer $\boxed{E}$

Explanation   Cutting price increases revenue by £100, assuming P × Q costs are the same, π will be made.

(3)

C is incorrect as at £6, 100 less pizzas are sold so not sales maximising.

profit = TR - TC

$MR = \frac{\Delta TR}{\Delta Q}$ $PED = \frac{\Delta \% Q}{\Delta P \%}$

A is incorrect as when price fall MR is +ve at 1.
B is incorrect as make less revenue at £6 by
£100

This answer has a few 'near misses':

A   Marginal revenue will be positive then negative as price falls

✗ B   Revenue maximisation occurs at a price of £6

✗ C   Sales are maximised at a price of £6

✗ D   Average revenue will equal zero where price elasticity of demand is unitary

✗ E   Cutting the price from £6 to £5 will increase profits

Answer   A

Explanation

(3)

Marginal Revenue = $\dfrac{\Delta \text{Total revenue}}{\Delta \text{output}}$

As price decreases the MR cure will decline the get to negative. Revenue maximisation will occur where MR = 0
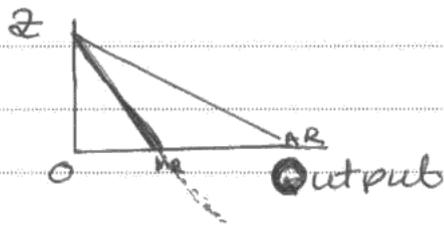
it cannot be C because you do not know where the MC is.

(Total for Question 3 = 4 marks)

ResultsPlus
Examiner Comments

Key correct Definition of MR (1) Diagram (1) Knock out is not correct as MC is not needed for sales max. The point that AC is not known would have been acceptable as a knock out mark. 1+2=3 marks

ResultsPlus
Examiner Tip

It would have been better for the candidate to annotate the given diagram, as if MR is shown to cross at the correct output then another mark is available (it should cross at 500 but any point between 400 and 500 was acceptable as scale was a little off-centre).

Question 4

The performance on this question again proved that the use of a diagram can significantly improve marks. The identification of rent as a fixed cost combined with a shift in AC but not MC was used by many to score full marks. However, many diagrams or descriptions showed a shift in marginal cost which would change the price and output, and many answers said that price would have to rise because costs have risen. The most popular incorrect answer was C. This question illustrates the importance of the lack of relationship between fixed and marginal costs.

The theoretical questions involving costs and revenues tend to be the most effective discriminators. In every paper there tends to be a question which involves a change in fixed or variable costs, and the first step a student should take is to identify which of those two costs is changing. Firms never leave the market or change their prices in the short run because of changes in fixed costs. The key determinant is whether price covers average variable costs. Even if the firm makes a loss, it will carry on in business so long as it covers its average variable costs.

The principal source of confusion is that while average costs change, marginal costs do not. Candidates should remember that a change in total fixed costs will shift the total cost curve but not change the gradient.

4 A sports equipment chain of shops faces a downward sloping demand curve and is making supernormal profits. The impact of a significant rise in the **rent** for the shops is likely to lead to

(1)

	Price	Profit
A	No change	No change
B	Rise	No change
C	Rise	Fall
D	Fall	Fall
E	No change	Fall

Answer £

Explanation

(3)
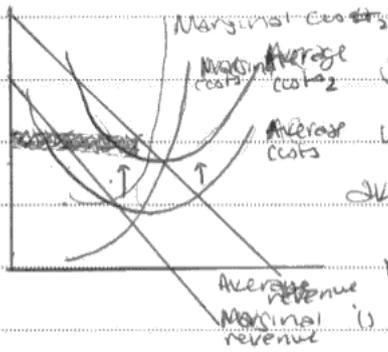
Supernormal profits are achieved by a firm when Average revenue is greater than average costs. Rises in rent, mean production costs increase. Average cost is equal to the total cost divided by output. Increases in production costs mean average costs will increase, shown by an upward shift in the demand average cost curve.

ResultsPlus
Examiner Comments

Key correct Diagram earns 1 out of a possible 3 marks. 1 mark for shift in AC - this is the maximum mark for diagram because MC has also shifted.The text does not explain what fixed costs are or how they affect a firm (0) 1+1=2

ResultsPlus
Examiner Tip

Only shift MC if there is a change in VC.

This is a model answer.

4 A sports equipment chain of shops faces a downward sloping demand curve and is making supernormal profits. The impact of a significant rise in the **rent** for the shops is likely to lead to

(1)

	Price	Profit
A	No change	No change
B	Rise	No change
C	Rise	Fall
D	Fall	Fall
E	No change	Fall

Answer E

Explanation

(3)
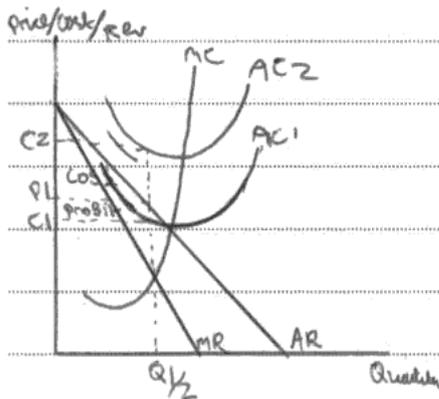
Rent is a fixed cost, therefore an increase in it will lead to a rise in ~~gross~~ Costs from C_1 to C_2 Causing a fall in profit. Marginal Costs do not Change nor does MR or AR So price stays the same

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ResultsPlus
Examiner Comments

Key correct Diagram alone could earn 3 marks, but there is also a mark for fixed costs 1+3=4

ResultsPlus
Examiner Tip

Good labelling earns high dividends in terms of marks.

Question 5

This was the most difficult question with many students failing to understand the concept of X-inefficiency. Many could choose the correct key but failed to get further marks because the definitions were vague. For example, 'X-inefficiency means the firm is not efficient'. The definition needs to include the sense that lack of competition means that costs rise.

For the supported-choice questions there is only ever one mark for definitions, and so having defined X-inefficiency there is no mark for defining patents. The candidate must instead explain how patents lead to X-inefficiency, for example by shielding the firm from competition. Many students used a diagram effectively showing a cost curve with and without competition. The most efficient way to earn the extra marks would be to give examples of X-inefficient behaviour such as organisational slack.

This was one of the few effective answers to this question.

5   X-inefficiency is most likely to exist in markets where   (1)

    A   new firms have recently entered the market

    (B) there are long-term patents in place

    C   there is a high level of contestability

    D   the conditions for price discrimination are not met

    E   concentration ratios are low

Answer   B

Explanation   (3)

X-inefficiency is the fall in efficiency experienced due to complacency and laziness in the workplace. A market with a long term patent would have less reason to work efficiently to try and to cut costs and increase profits as they are already protected. The patent gives them protection from new firms wanting to enter the market, giving them monopoly power.

ResultsPlus
Examiner Comments

Key correct Examples of x-inefficiency: complacency (1) and laziness (1) Patents act to protect profit (1) You could also award a mark for saying that patents are a barrier to entry, but answer is now at max. marks 1+3 = 4

ResultsPlus
Examiner Tip

Ensure that all the terms on the specification can be defined. Do not confuse X inefficiency with X efficiency.

Here is another good example, where a diagram has been used effectively.

A new firms have recently entered the market

B there are long-term patents in place

C there is a high level of contestability

D the conditions for price discrimination are not met

E concentration ratios are low

Answer B

Explanation
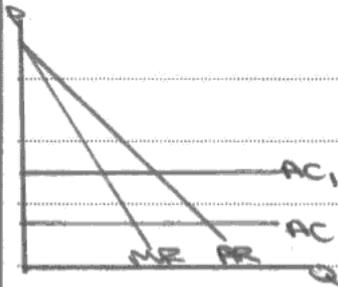
(3)

A patent is a barrier put in place to prevent other firms from entering the market. It is not C as this (contestability) will increase the likelihood of firms entering the market and so firms will try to keep costs down. X-inefficiency is when a firm moves from perfect competition to a monopoly - it is the reduction in competition and increase market share that makes the firm lazy and increases AC. A patent will have this affect as the firm knows it will have no competition - it can afford to be lazy.

Question 6

Most students could identify that the firm is productively inefficient although many chose E, that the firm is allocatively efficient. A significant number misread 'inefficient' for 'efficient'. Many discounted B as an incorrect answer by effectively explaining that the firm makes normal profits.

One of the most common ways to pick up the marks was to note that this is monopolistic competition in the long run which would then be followed by another characteristic of this market structure. Another effective way to score a mark is to observe that profit maximisation occurs at MC=MR.

This answer is too narrow. There is the definition and profit max point only, with no use of diagram or attempt to contextualise.

6   A small profit maximising café faces the following cost and revenue curves. It is noted that the café is never full.

Which one of the following is most likely to apply to this café?

(1)

A   It is productively inefficient in the long run

B   It is making supernormal profits

C   There is evidence of collusion

D   It operates in a perfectly competitive market

E   It is allocatively efficient in the long run

Answer   A

Explanation

(3)
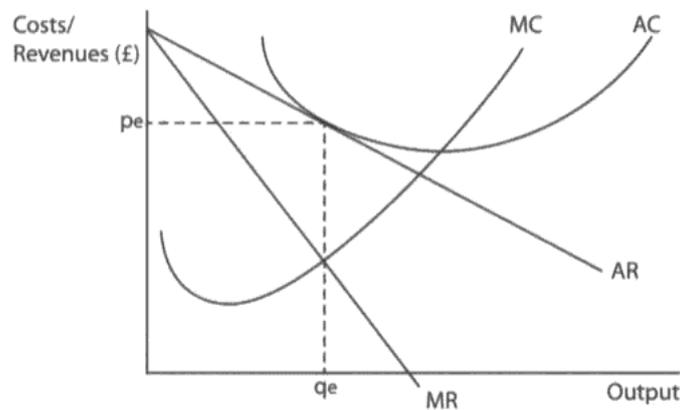
Profit max point => MC=MR.

Productive efficiency is when a firm produces at the lowest point of its AC curve. In ~~that~~ the long run, ~~a f firms~~ the ~~perfect~~ ~~more~~ it is productively inefficient since price is not set at the lowest point of the AC curve where mc meets AC.

As with many questions which provide a diagram, the student should use the diagram. One effective way is to highlight the point where AC=MC and show that the price would be lower and output would be higher and therefore the firm is not productively efficient.

6 A small profit maximising café faces the following cost and revenue curves. It is noted that the café is never full.

Which one of the following is most likely to apply to this café?

(1)

A It is productively inefficient in the long run

B It is making supernormal profits

C There is evidence of collusion

D It operates in a perfectly competitive market

E It is allocatively efficient in the long run

Answer [A]
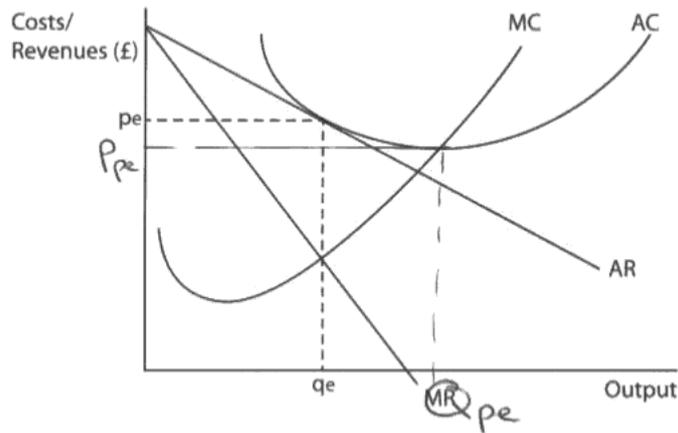
Explanation

(3)

Productive efficiency - AC = MC
As shown by annotation,
productively not efficient price
oth below price of cafe,
∴ productively inefficient

B is wrong as meeting
normal profit as AC is tangential
to AR

Question 7

Most candidates started off with a definition of monopoly, but the question is referring to a local monopoly, that is, where a firm has dominance in a geographical region. Severn Trent clearly does not have a monopoly supply of water in the country as a whole. So therefore there were no marks for defining a monopoly unless in the correct context. Explaining the role of the regulator Ofwat was as always a reliable way of earning a mark. Very few students defined consumer surplus even though it was the answer to the question. It is thought that because this is a Unit 1 concept that perhaps students did not feel it would be appropriate. It must be remembered that this is a synoptic paper and any parts of the syllabus can be used in responses if necessary.

The most reliable way to earn the marks in this question is to show consumer surplus before and after a price cut and to shade on the diagram the trapezium which signifies the change in consumer surplus. It is surprising how many students shaded the incorrect area or did not shade it at all.

Candidates should ensure they can use Unit 1 and 2 concepts for Unit 3.

It was a surprise that very few answers included a definition or diagram of consumer surplus.

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7 Severn Trent Water is a local monopoly supplier of water in the Midlands. In 2008 it was fined by Ofwat, the water regulator, and required to reduce its planned charges. The most likely effect of this decision would be to

(1)

A increase producer surplus

B substantially lessen competition

C increase monopsony power

D satisfy the shareholders

E increase consumer surplus

Answer ⬚ E

Explanation

(3)

Regulators act as a surrogate for competition, and are used to promote consumer welfare.
Regulators fine firms if they are opperating against the public interests
Monopoly monopolies are price makers and are assumed to be profit maximisers (produce where MC = MR)
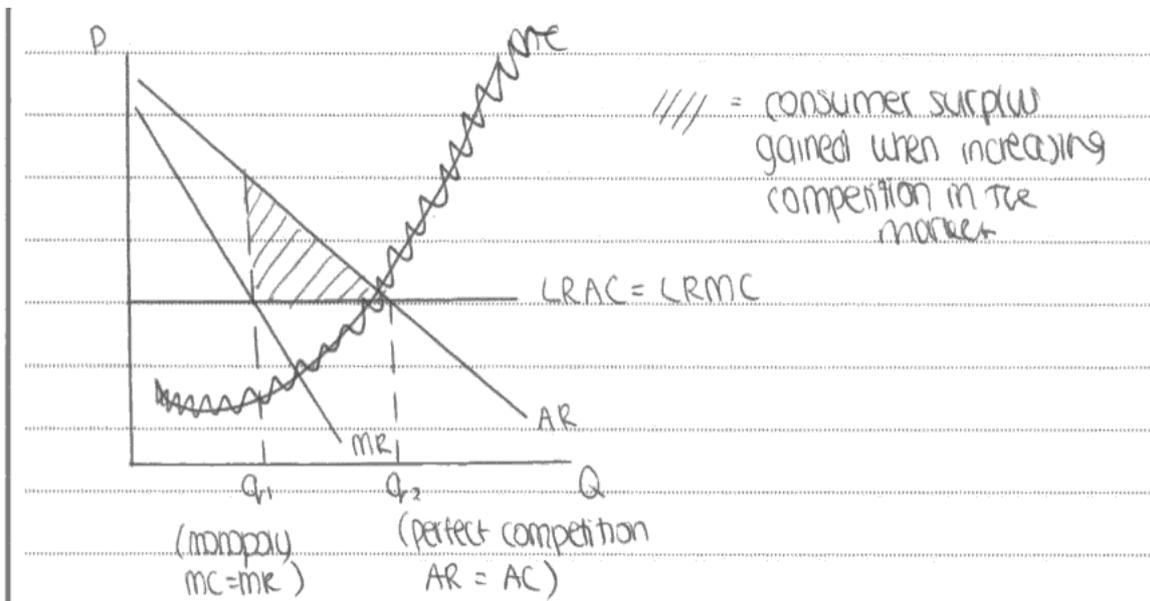
Diagram labels: P (vertical axis), Q (horizontal axis), MC, AR, MR, LRAC = LRMC, Q₁, Q₂

//// = consumer surplus gained when increasing competition in the market

LRAC = LRMC

AR

MR

Q_1 Q_2

(monopoly mc=mr)   (perfect competition AR = AC)

Diagrams are a very efficient way of picking up the marks - here there is a definition mark possible (if not already earned) and the change in consumer surplus mark.

7 Severn Trent Water is a local monopoly supplier of water in the Midlands. In 2008 it was fined by Ofwat, the water regulator, and required to reduce its planned charges. The most likely effect of this decision would be to

(1)

A increase producer surplus

B substantially lessen competition

C increase monopsony power

D satisfy the shareholders

E increase consumer surplus

Answer [E]

Explanation

(3)

A regulator is a body that aims to promote competition and works for the consumers interest

Setting lower prices would lead to more consumers being able to pay.
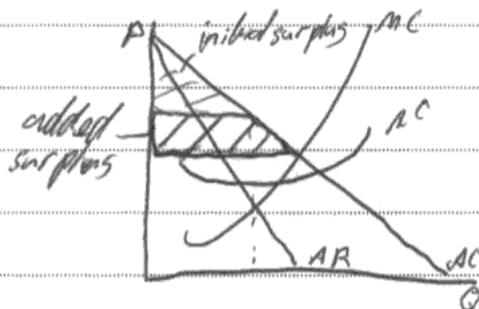
consumer surplus is the difference between the maximum price a consumer is willing to pay and the actual price he pays.

Question 8

Many students knew that perfect competition in the long run means that normal profits will be earned and selected the correct key D. However, a vast number could not discuss perfect competition in the context of firms making a loss and instead talked about super-normal profits attracting new firms into the industry. Even though students knew firms left the industry because they were making a loss they proceeded to discuss super-normal profits which would attract new firms. This illustrated a fundamental misunderstanding of the function of profit and highlights the difficulties students have in discussing negatives rather than positives.

Students should always use a diagram when discussing perfect competition, and the long-run diagram showing normal profits is helpful.

Many answers showed firms entering a loss making industry.

8   A commodity is traded under conditions of perfect competition. Which one of the following is a likely impact of exit from the industry by a large number of loss-making producers?

(1)

A   Firms remaining in the market will cut their prices

B   Firms remaining in the market will keep their prices unchanged

C   Firms will operate where their average revenue is greater than their marginal revenue

D   Firms remaining in the market will make normal profits in the long run

E   Demand for the commodity will expand as prices fall

Answer   C

Explanation

(3)

Perfect competition is a small section of the market where there's no barriers to enter or exit this allowing firms to easily exit market when losing profits.
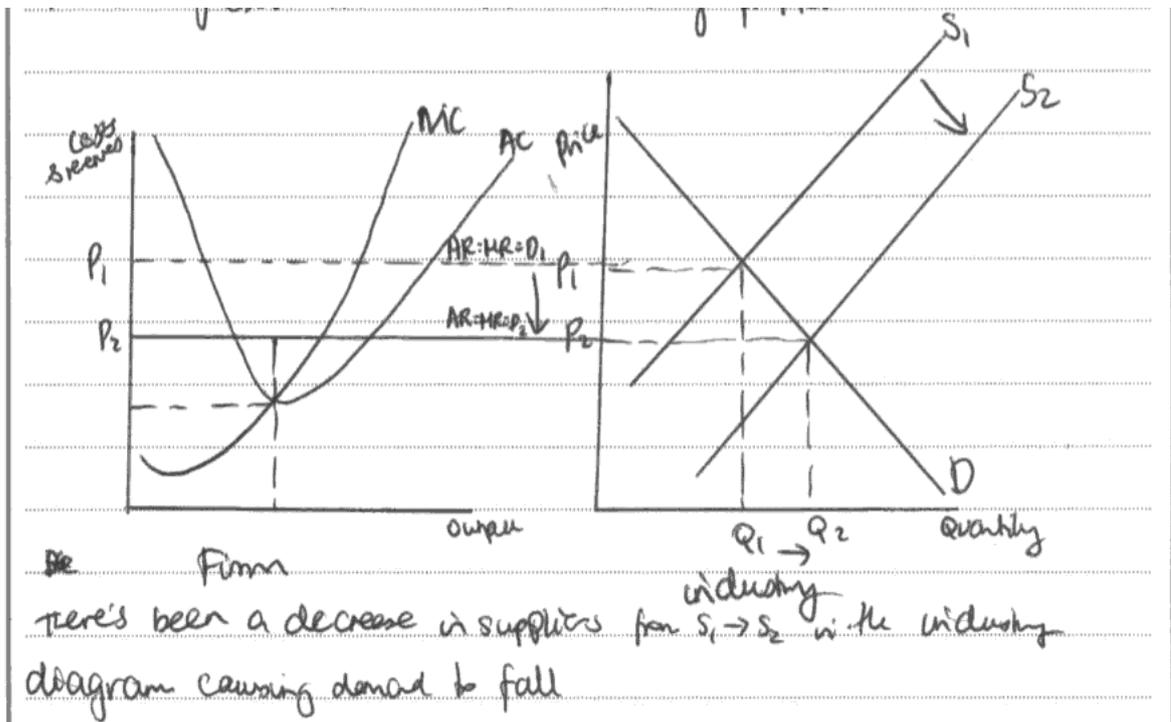
There's been a decrease in supplies from $S_1 \rightarrow S_2$ in the industry diagram causing demand to fall

The long run diagram is a helpful inclusion in this answer, but it would gain another mark if it was shown how this equilibrium is reached, that is, by firms exiting the industry (supply shift to the left).

8 A commodity is traded under conditions of perfect competition. Which one of the following is a likely impact of exit from the industry by a large number of loss-making producers?

(1)

A Firms remaining in the market will cut their prices

B Firms remaining in the market will keep their prices unchanged

C Firms will operate where their average revenue is greater than their marginal revenue

D Firms remaining in the market will make normal profits in the long run

E Demand for the commodity will expand as prices fall

Answer D

Explanation

(3)

Perfect competition is when there are many small sellers and buyers, low barriers to entry and exit, perfect knowledge and they are price takers.
Not 'C' as in perfect competition AR = MR
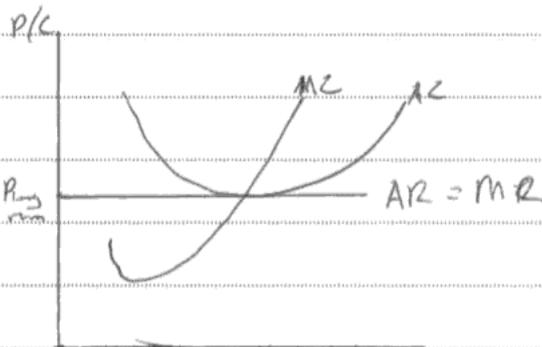
Question 9 (a)

For the candidates that realised this question was about monopsony marks could be gained easily. First, there was a mark for identifying the concept and a second mark for a brief explanation of buying power. Two marks were then available for application, and while there was much in the passage, some candidates only used a very brief point and could only earn one mark. A significant number of students did not discuss firms such as egg buyers but instead talked about egg sellers and were therefore confused about monopoly and perfect competition. Careful reading of the question and the data would have prevented this problem.

Many confused monopoly and monopsony.

(a) Using the information provided, explain the market power enjoyed by egg packaging and distributing firms, such as Noble Foods, when buying eggs from chicken farmers.

(4)

> The market structure of Noble Foods can be considered as monopoly. Monopoly is where one firm dominates the market. There are high barriers to entry and exit.
> According to extract 1, Noble Foods purchase "70% of eggs produced". A legal monopoly requires only 25% market share. Furthermore, it states that there is "no competition anymore". This shows Noble Foods benefit from monopoly power.

ResultsPlus Examiner Comments

0 for theory 2 application: 1 for 70% 1 for no competition anymore - there is a sense of a powerful firm (quote from the text)

Total 0+2=2

ResultsPlus Examiner Tip

Read the data carefully.

Here is a 2 + 2 answer

(a) Using the information provided, explain the market power enjoyed by egg packaging and distributing firms, such as Noble Foods, when buying eggs from chicken farmers.

(4)

Noble Foods have monopsony power. This is the buying power of one large single firm over many suppliers. As Noble Foods purchases "nearly 70% of the eggs produced" firms cannot negotiate with it easily and it gets to buy eggs at a very discounted price.

ResultsPlus
Examiner Comments

Theory Identification of monopsony (1) Identification of power over suppliers (1) Ap 70% of eggs (1) Buying at a discounted price (1) The low prices can be used as theory or application - score in such a way that the student gets the higher mark - but do not count it twice. 2+2=4

ResultsPlus
Examiner Tip

Short answers can be very effective.

Question 9 (b)

The first two marks explaining that the egg farmers were making a loss and therefore leaving the industry would earn two marks for most students. The diagram caused a significant problem, with many candidates drawing marginal cost and marginal revenue but not identifying this as an equilibrium. Many drew a profit area with AR greater than AC but labelled it as a loss and therefore these students did not gain the diagram marks.

Moving on from the analysis, there were four marks available for evaluation. Most candidates now realise the need for evaluation. However, rather than evaluate many simply gave alternative reasons for firms leaving the industry. For example, having argued that costs had risen they would then say that supermarkets were pushing down prices. There were several effective approaches to evaluation: to comment that free-range egg producers would not experience a rise in cost; that whether farmers leave depends on the magnitude of increase in production costs relative to other costs; the fact that the cost rises were a one-off rather than on-going changes.

This answer scores well.

(b) Using a cost and revenue diagram, examine why some egg farmers are leaving the industry. Refer to Extract 1 in your answer.

(8)

One reason why some egg farmers are leaving the industry would be due to the high costs involved. We are told in extract one that new regulations means new cages are needed, costing over £14 per hen. We are told that smaller chicken farmers with less market power are unable to absorb these costs.
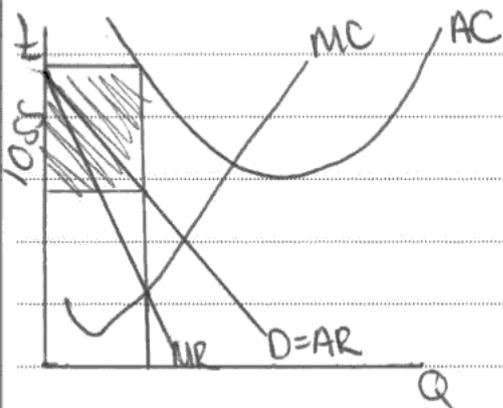
Therefore, their cost curves are exceeding their revenue curves causing them to make a loss, therefore they are unable to survive in the market.

Also, the structure of the market has turned to a monopoly as we are told in extract1 that competition in egg farming no longer exists.

However, firms will only leave the industry immediatly if they cannot cover their average variable costs in the short run. If firms can cover their AVC in the short run, then they can continue to produce in the market in the long run. Therefore, some firms may not leave the industry until the long run. Also, some egg farmers may have gained customer loyalty, therefore are still managing to compete with Noble foods due to repeat customer sales.

This is a typical 4KAA 0 EV answer.

Extract 1 states that the costs for farmers is continuously on the rise and due to new EU regulations capital changes need to take place, changes that many no farmer are just unable to cope with. The installation of new cages is an example of a cost that prevents new farmers from continuing.
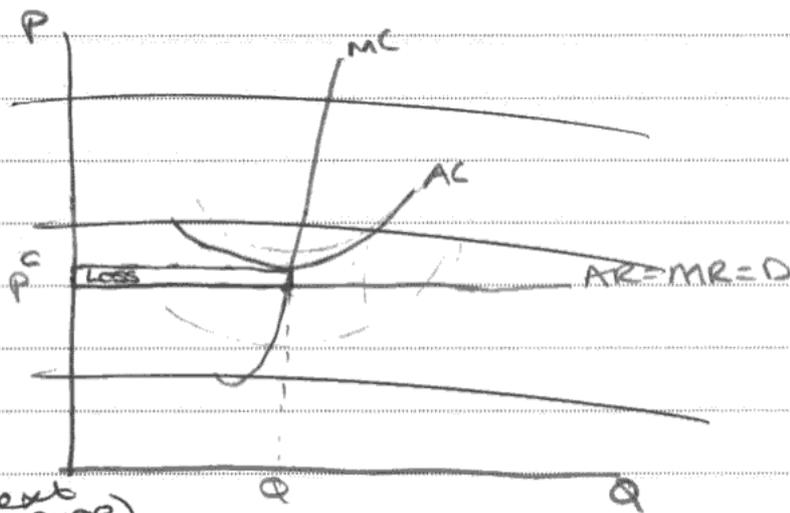
(on next page)

Diagram to show egg farmers having to face cost above the price at which they recieve from supermarkets. As a result, they would have to leave the industry. The lack of competition within the industry meant that prices paid were kept low and the cost paid out were increasing.
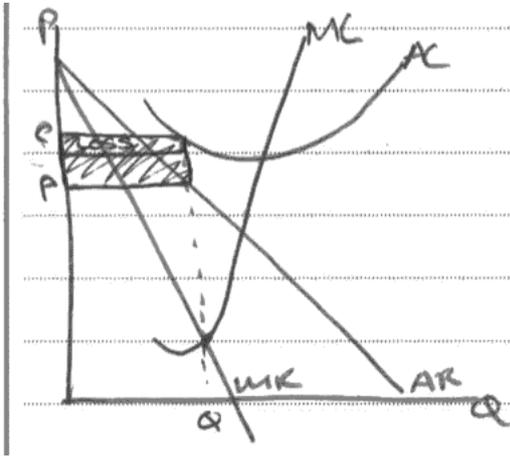
Showing rising costs and losses resulting from it

Question 9 (c)

The question on increased EU regulations was based on the data which stated that new cages had to be installed costing 'over £14 per hen'. The expected response was that a rise in costs would have an impact on the supply and price of eggs in the long run as some egg farmers leave the industry, as explained in extract 1 ('750,000 hens have been slaughtered'). However, many candidates saw this question as an opportunity to talk about various EU regulations, in particular the regulatory action of capping prices which was not at all in the data, and in fact contrary to it. For those that did use the data, many observed that the UK is a net importer of eggs and effectively used the information that there are three types of egg consumers - retail, food manufacturers and foodservice (fig. 2) – and this neatly provided a three-point structure for many answers. In evaluation there was apposite use of monopsony power, the observation that 44% of eggs were free-range and that the improved life-style of the hen could outweigh the increased cost of production, although this was difficult to measure.

It should be remembered that using three evaluation points is the best approach to a 12-mark question.

This is a poorly constructed answer, with very brief explanations.

*(c) Discuss the effects of increased EU regulations on egg consumers. Refer to Figure 2 in your answer.

(12)

Increased EU regulations has caused rising costs for egg producers, causing them to go out of business, which has led to a reduced supply, meaning that egg consumers will face an increase in price of eggs.

Figure 2 shows that in 2011, 9691 million eggs were produced and 11,512 million eggs were consumed. There is a deficit in the production of eggs, which causes higher prices for consumers

EU regulations has also caused increasing cost for food manufacturers which use eggs, e.g mayonnaise manufacturers, so non-direct egg consumers will also see prices increase

However, 47% of egg consumers are from supermarkets and extract 3 states that supermarkets are refusing to pass on price increases to consumers, so in this case, not all consumers of eggs are effected

Well written answers contrasted with answers such as this.

*(c) Discuss the effects of increased EU regulations on egg consumers. Refer to Figure 2 in your answer.

(12)

Extract 1 states that EU regulations are preventing the housing of hens in conventional battery cages which has meant installing new cages, costing over £14 per hen. This means the cost of producing eggs is increasing. The Supply of eggs is therefore decreasing and some food manufactur's profit's are being damaged as they cannot afford the high costs of eggs from distribution firms.

Figure 2 States that egg production in 2011 was 9691 million and consumption was 11512 million. This Suggests egg consumers are not recieving enough eggs and the eggs that are being consumed are too expensive.

E.U regulations goals are to maintain good consumer interest and welfare, also to maintain good competition in the market.

However although Consumers such as food manufacturers are Suffering. Customers are benefiting from the E.U regulations. Extract 4 states" Discounts such as buy one get one free" are being used. which is beneficial to Supermarket

customers.

Also the ban of hens in conventional cages (battery) means that the eggs being produced are much healthier with more emphasis being put on free-range eggs (now 44% of the type of eggs in the UK) This is beneficial from a consumer's health ~~point~~ perspective as the chickens are living a healthy life and not ~~cooped~~ crammed in a battery cage. Also people who are ~~At~~ anti animal abuse will be happier with the ~~f~~ slight improvement of the animal's welfare.

In the long-run the EU regulations might have to be ~~deregulated~~ loosened up as ~~super~~ to many egg farmers might leave the industry leading to a further loss in supply. Also Supermarket ~~might~~ profits will continue to worsen. long-run therefore prices of eggs might be reduced whilst maintains to increased quality of eggs. This is beneficial for the consumers.

Question 9 (d)

It was pleasing to see that many students could use a pay-off matrix or a kinked demand to explain supermarket pricing strategies. The most common approach was a two-by-two matrix with two supermarkets and high/low price on the axes. However, it was not always clear which pay-off related to which supermarket and in many cases the pay-offs did not match the description. It is fundamentally important that the rationale provided in the text supports the numbers in the matrix. For example, if Morrison cuts the price it should make more money in the short run but less in the long run.

The kinked demand curve was very helpful when used as evaluation although this model is not required and is one of many approaches that could be used. A candidate might explain that a supermarket cannot raise prices because other firms will not follow and would therefore lose sales because demand is elastic. However, if it cuts the price other supermarkets are likely to copy.

Among the other forms of evaluation discussed were the illegality of collusion; the size of the fines relative to the profits made by supermarkets; the consideration that there are no close substitutes to eggs; and the supermarkets' ability to cross-subsidise. It should be noted that effective development of game theory can earn the full KAA marks but there should be four attempts at evaluation.

This is an example where the payoff matrix is not very effective, but there is enough for 1/2 marks for sense of the dynamic.

*(d) Assess reasons why supermarkets are not increasing the retail price of eggs to cover the increased production costs of egg farmers. Use game theory to support your answer.

(16)

Supermarkets are not interested in increasing the price they are charging their customers for them to buy eggs because they could potentially lose lots of customers, revenue and profit by increasing their prices for eggs. If all firms in the market increased their prices then all supermarkets would be ok but it is illegal for firms to collude and fix prices.

Raise prices?		Supermarket A	
		Yes	No
Supermarket B	Yes	5, 5	2, 12
	No	12, 2	10, 10

This table represents what would happen to the supermarkets profit depending on the decisio

they make. But they are also interdependent on what other decisions other supermarkets make as this will also effect their profit ~~revenue~~.

By not changing their prices supermarket A makes sure they are maximising their minimum profit no matter what decision supermarket B makes. If B makes the same choice as A they bothe enjoy high profits by keeping their current customers. However, if B decides to raise their price and is the only firm to do this then they will lose a lot of their customers who are now going to the cheaper supermarkets. This means that supermarket B could potentially start to make losses.

So the reason why supermarkets aren't increasing their prices is that they do not know what other supermarkets will do with their prices so it is not worth the risk of potentially losing lots of customers, revenue and profit. by increasing prices and losing customer demand.

ResultsPlus
Examiner Comments

This earns 6/8 KAA, with explanation of the payoffs and discussion of the risk of price changes, but the evaluation is very limited (sense of illegal).

6+1e = 7

ResultsPlus
Examiner Tip

8/16 marks are for evaluation. Make 4 points if possible.

Here is an example where the payoffs are not at all clear and the diagonal lines do not add to the understanding. There is more in terms of evaluation attempts, but the points are not fully developed.

Supermarkets in the uk operate in an oligopolistic market. This means they are interdependent.

One reason why they might not be increasing the retail price of eggs to cover the increased production costs of egg farmers is their monopsony buying power. This means that they can buy at the lowest prices from the producer and therefore do not have increased costs to pass on to the consumers. However this is inequitable for the farmers and if more farmers leave the industry the prices of eggs might increase further making this difficult to maintain the low prices in the long run.
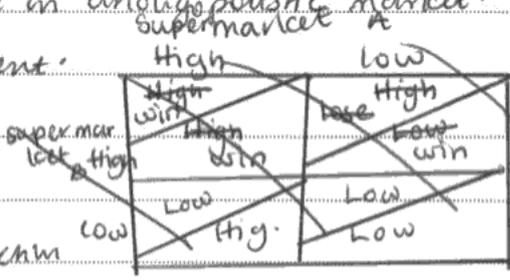
Due to the nature of the supermarket industry, if one supermarket increases their price they would lose a significant number of their customers to other competitors as shown in the matrix below. If supermarket A charge a higher price than supermarket B it would lose its customers. These constant price wars means that both supermarkets would have to charge the lowest possible price to keep their customers. However the supermarkets could establish customer loyalty which might mean they would still pass on
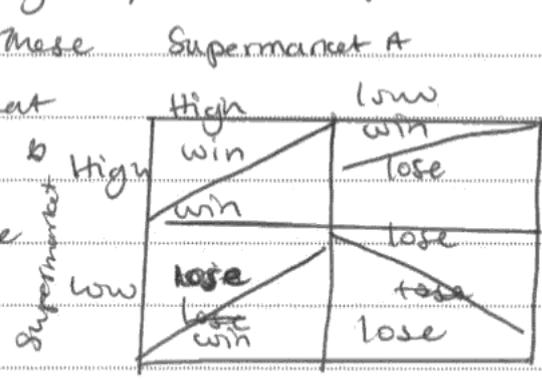
Supermarket A
High   low
High win   lose
      win   win
Low   lose lose
      win   low

Supermarket A
High   low
High win   lose
      win
Low   lose lose
      win   lose

Some of the costs to the consumer.
~~It could also be the cost that their~~
Discounts such as buy one get one free encourages supermarkets to make
supernormal profits.

Question 10 (a)

Almost all candidates identified correctly that energy is supplied in an oligopoly market structure, although some were also correct in explaining that British Gas supplying half the market is a legal monopoly. The main discriminator on this question was the use of data. A careful choice of words such as 'the six-firm concentration ratio is 99%' earned two marks but most were not as precise. For example, 'the Big Six have 99%' gained one mark. There was much other data that could be used for further marks and most referred to the £15bn combined profit of the firms.

Here is an effective answer.

(a) With reference to the information provided, what market structure best describes the supply of household energy in the UK?

(4)

> It is an oligopoly, when a few large interdependent firms dominate the market. The name 'Big Six' given suggests that these 6 firms are the dominating markets here suggesting an oligopoly.
> Also the fact the the firms dropped prices by 5% at the same time suggests collusion which occurs under an oligopolies.
> Large profits of £15 billion suggest a lack of competition and high barriers to entry thus an oligopoly

ResultsPlus
Examiner Comments

Theory 2/2 marks. Oligopoly (1) features (1) Application 2/2 marks. Firms drop prices by 5% (allow 4 to 5% in all answers) as evidence of collusion (1) £15 combined profits (1). Total 4/4

ResultsPlus
Examiner Tip

Use two pieces of data if possible for the part (a) questions.

This is an example of a vague use of concentration ratios.

(a) With reference to the information provided, what market structure best describes the supply of household energy in the UK?

(4)

An oligopoly — meaning there is a high concentration ratios and that most of the supply of energy is provided by just a few firms [illegible]. In this case, '99%' of energy is provided by the 'big six' firms, including British gas and E.ON.

ResultsPlus
Examiner Comments

Theory 2/2 marks. Oligopoly (1) has a high concentration ratio (1) Application 1/2 marks. Big 6 has 99% (1). No second mark awarded here as not linked to the words 'concentration ratio'. Total 3/4

ResultsPlus
Examiner Tip

Be precise.

Question 10 (b)

Almost all candidates could identify either an increase in demand or the fact that costs had not risen and therefore earned two KAA marks. Unlike 9(b), the diagram required a shift because the question wanted to know why profits had risen. While this made 10(b) slightly more difficult, the mark scheme was adjusted to make it easier to earn marks later in the question. Most candidates could show a shift in costs but although variable costs were an issue, many did not shift marginal cost. Likewise, many could shift average revenue, but failed to shift marginal revenue and find the new equilibrium. As with Q9(b), many shaded the incorrect area for profit mistakenly identifying the lower boundary area at MC=MR.

The evaluation for this question was very poor in many cases. Although the question asked for one reason, candidates decided to give a second reason as their evaluation point. A much more effective approach would be to consider the magnitude of the issues, the illegality of collusion, the lack of information provided, or the time period under consideration.

Here is an example of excellent KAA but no evaluation.

A second point is made even though only one is required, and it is not evaluative.

(b) Using the information provided, discuss **one** reason why the 'Big Six' energy firms have seen combined annual profits rising to £15 billion since 2009. Illustrate your answer with a cost and revenue diagram.

(8)

However these profits may have been raised by production costs and sacking workers which has created higher profits.

Also in the long run costs decrease as they may be operating similar to natural monopolies.

ResultsPlus
Examiner Comments

The application and diagram marks are earned easily 4/4.
The attempts at evaluation are not valid 0/4.

ResultsPlus
Examiner Tip

Spend equal time on the evaluation as the KAA.

This is a very good example of how to earn the marks.

(b) Using the information provided, discuss **one** reason why the 'Big Six' energy firms have seen combined annual profits rising to £15 billion since 2009. Illustrate your answer with a cost and revenue diagram.

(8)

One reason why the 'Big Six' have seen combined annual profits rise to £15 bn since 2009 is due to prices remaining high despite Figure 1 showing that wholesale gas prices have decreased since 2008.
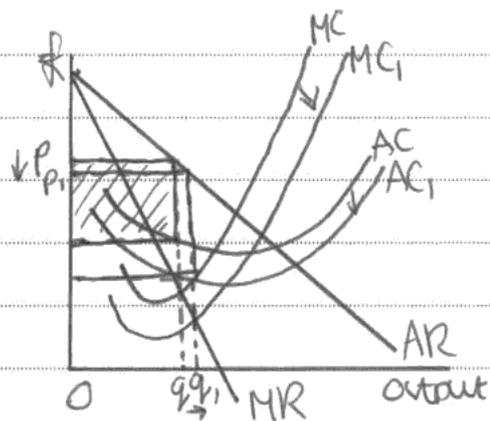
Gas prices is a variable cost and so falling gas prices shift marginal cost and average cost downwards. Profits are shown by the increase in the outlined area, and despite prices falling slightly there are still increased profits.

Falling costs explains why profits have increased and almost stagnant prices

However, profits may not continue to rise as investigations by the competition commission may cause firms to reduce their prices in line with reduced costs, whereas there have currently only been minor reductions. The competition commission can impose large fines if this is not adhered to.

Furthermore, if gas prices are now rising and so profits made in the past year might not be explained by low costs, firms may instead have tackled x-inefficiency or become more productive.

Question 10 (c)

There seems to be a major problem in understanding the concept of tacit collusion. Many defined it as covert collusion, that is secret or even informal, but this was not credited. The OECD definition is the best reference, which indicates that the collaboration is implicit or unspoken. Some candidates suggested that some forms of collusion are legal, but this is an ill-advised approach. If an action is collusion it is illegal, but may not be able to be proven as such. Having said this, students could go on to earn further marks discussing collusion in whatever form they understood it and many discussed the difficulty of finding evidence, regulatory capture, asymmetric information and lack of regulatory power.

The evaluation was also far more straightforward for those that answered this question. The most common response was that there is a lot of evidence of collusion or that regulatory powers have recently increased. Some also discussed lack of need to collude because of kinked demand. However, most answers for this question were less than half a page in length and candidates seemed ill-prepared for this area of the specification.

This could earn the KAA marks many times over.

*(c) Discuss problems faced by regulators when investigating an issue of 'tacit collusion' (Extract 2, line 25). (12)

The role of the regulator is to combat market power and force the firm to find efficiency gains. The regulator works in the consumers interest. Tacit collusion is when a firms gives an unspoken or implicit agreement to each another firm and colludes with them for mutual benefit.

A key problem that regulators have is the time and cost the administration takes in investigating. Ofgem took 9 months and it could be true that the firms have colluded in another way in that time, in which case it would take another 9 months to investigate it.

It may also be true that the end of North Sea "cheap gas" has meant that each energy firm's average costs have risen, and they have only kept prices high to pass on costly production to consumers. In which case, a rise in prices is justified, to help each firm survive.

However, in evaluation, there is strong evidence of price leadership in the case with SSE cutting prices after British Gas and all firms raising prices within a "few weeks" of each other. ~~Since there is imperfect knowledge, there they should not be so aware~~ clearly this is tacit collusion since all of the Big Six took part to raise prices.

Also, in evaluation, EDF's profit "trebled", is it right ~~that~~ really true that they are suffering from high average costs? This seems to be clear evidence of oligopoly power charging high prices for a maximum return of supernormal profit and tacit collusion, in a more competitive market, not so much profit would be made.

Lastly, in evaluation, ~~the~~ the firms pricing structures are complex and need to be "simplified", if ~~then~~ the firms aren't colluding, why are their prices not as transparent as they should be? Hiding prices ~~is~~ could be evidence of tacit collusion here.

ResultsPlus
Examiner Comments

Role of regulator (1)
Tacit collusion (1)
Admin costs (2)
It could be rises in costs (2)
Application to data (2)
Profits trebled - sense of magnitude (2e)
It is easy to find evidence (2e)
Total 10/12

ResultsPlus
Examiner Tip

This was one of the best answers, but still more time should go on evaluation at the expense of KAA.

This is an example where tacit collusion is not understood.

*(c) Discuss problems faced by regulators when investigating an issue of 'tacit collusion' (Extract 2, line 25).

(12)

Tacit collusion is when 2 or more firms, usually from an oligopolistic market structure, meet in private to discuss future plans. Tacit collusion is done very

secretively and usually only the top members from each firm knows that it is happening. This is one reason why it is so hard to prove that firms have colluded. This primarily is an example of asymmetric information between the regulator and the firms.

For a regulator to find out if firms have been involved in tacit collusion they would need to find out specific information such as, meetings, emails, telephone calls, etc. between the 2 firms. The regulators simply do not have the power to find out information like this.

Another problem that regulators could be faced with is regulatory capture. This is when a firm 'bribes' the regulator to stay quiet about the issue. Firms do this because being caught for illegal activity such as this could result in the firms being fined and members of the firm going to prison.

In conclusion the most significant reason for tacit collusion being hard to prove by regulators is that it happens very secretly and only a few people know that it is happening.

Question 10 (d)

The wording of this question was more complex than many students realised and coming at the end of the exam it drew an extraordinarily wide range of responses. There were several ways to approach the question and many of them were effective. For example, one could discuss reasons why competition works and then why it doesn't, followed by an evaluation of price-cap regulation; or a more straightforward for-and-against argument on the effectiveness of markets controlling prices; or another common approach was a discussion of regulation in its various forms where competition breaks down as the text implies.

Most students could explain that more competition drives down prices although many confused more competition with perfect competition which was not an appropriate analysis. Many talked about the lack of contestability in the energy markets, but some saw this as an essay on contestability and their responses were accordingly far too narrow. Price-cap regulation was explained well but many focussed too much of their answer on what price-cap regulation is rather than discussing it in relation to other means of keeping prices down. An effective approach was to discuss other forms of regulation as an alternative to price-capping regulation.

For those who left adequate time for this question and were prepared to think carefully about the wording, there were some high scoring responses. However many answers were short and not related to the question as presented.

The answer here is an example of good points being made but not developed.

*(d) Assess the case for creating an 'effective market where competition is the downward pressure on prices' (Extract 2, lines 6–7), rather than price cap regulation.

(16)

A price cap is when a firms are not allowed to raise prices above a certain level. This will reduce the profits of a firm.

Advantages for using competition to reduce prices are that the consumer benefits much more. While increased competition may decrease prices, it may also offer consumers a wider range of products.

Another argument for using competition is that it will benefit the businesses more. This is because the firm will have to reduce its prices to compete and so any X-inefficiency it may have will

need to be removed as well as increasing overall efficiency of the firm. However this only really applies in the long run and firms will suffer decreased profits in the short run. Competition is not also guaranteed to bring lower prices as firms could still collude to keep prices up.

A price cap would certainly achieve the goal of reducing prices, however because there is no longer as much incentive for firms to try to get the edge over other firms because there is a limit to the level of prices they can set so cannot profit maximise. This could lead to inefficiencies ~~and~~ developing ~~as~~ because you are limiting the ~~so~~ potential profits, and so firms don't really try. ~~to xxxxxx~~ However it does make firm focus more or non-~~profit~~ price competition - so consumers could get a better service. However the extent to how much energy's quality can be ~~increased~~ improved is ~~untitely~~ unlikely.

In conclusion the argument for competition is greater however can competition really protect those most vunerable in the market for energy?

This is a well planned, well executed answer.

*(d) Assess the case for creating an 'effective market where competition is the downward pressure on prices' (Extract 2, lines 6–7), rather than price cap regulation.

cost
padding

(16)

Price cap is a form of regulation ⇒ RPI−X+K.
Competition is when you introduce more firms into the market thus driving down prices.

Competition is better than having a price cap because it encourages efficiency. Firms need to become more allocatively efficient (AC=MC) so that they maintain the competitive edge over rivals. This causes costs to fall and results in falling prices which benefits consumers.
However RPI−x also encourages efficiency as if a firm is more efficient than required, it can pocket the extra efficiency gains as profit. Hence, that profit motive encourages efficiency similar to competition

Competition also creates more choice for consumers and encourages R&D and investment for innovation. Hence new products are developed at cheaper costs which cause prices to fall as well as more choice for the consumer.
However price capping acts as a surrogate for competition, therefore has the same effects as increased competition. It too also encourages Investment and innovation as the 'k' in RPI−x+k is the estimated investment in capital. The more firms invest the higher

they can raise prices hence there is more innovation for consumers.

Competition is preferred over price capping to drive down prices as price capping is not always successful. There is the risk of regulatory capture which is when the regulators create a relationship with firms and become soft on them thus too giving them a lower value for X here raising prices.

However, competition is not always good as it could lead to the development of monopolies. This could damage consumer surplus as monopolists will restrict output and raise prices, which is not what is required.

Finally, competition is preferred over price capping because there is the sometimes assymmetric information between regulators and firms. Therefore it could lead to cost padding. This is when firms artificially raise prices before an inspection with the aim of having a lower X value, thus causing prices to be higher than they should be.

However competition is not always beneficial

as it could lead to market failure if some markets are not regulated. Therefore certain merit or public goods might not be supplied to the public. Furthermore, there is the issue with quality control which is especially true in the health market

Paper Summary

Based on their performance on this paper, candidates are offered the following advice:

- Regurgitation of notes is not helpful.

- There is always a good return for investment in time exploring the basic concepts of the theory of the firm.

- The use of diagrams and annotation of the ones given is a very successful approach.

- Always use the data provided to score the very highest marks.

- The top level answers tended to have well-built sentences, in paragraphs

- Include application as part of the analysis, and make a thorough use of the extracts.

- Use extended evaluation, covering a wide variety of issues. This accounts for half of the marks available in the 8, 12 and 16 mark questions.

- In conclusion, many of the answers were a credit to excellent teaching within centres, and careful preparation by the students, and there are dividends for students who invest time in working through past papers and mark schemes.

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx