

Examiners' Report  
June 2012

GCE Economics 6EC01 01

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June 2012

Publications Code US032036

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## Introduction

It was pleasing to note a good standard of responses for this paper and there were a significant number of superior answers which scored very high marks, particularly in the supported choice section of the paper. There were very few candidates who could not answer at least some of the questions on the paper.

Most candidates completed the paper in the time available though some struggled to develop their answers for the very last question. It is important that candidates practise past unit 1 papers under timed conditions to strengthen their skills.

The performance on individual questions is considered in the next section of the report and there are two examples of candidate work for each one. These examples act as a guide as to why a question was well answered and also on how to improve further.

### Section A: supported multiple choice questions

Most candidates found this method of testing highly accessible. The mean score for the supported multiple choice questions was 2 marks higher than the June 2011 examination. This appeared to reflect greater familiarity in offering diagrams to answer particular questions, for example, Q2 (indirect taxation), Q3 (signalling function of the price mechanism), Q4 (government subsidy) and Q5 (demand and supply equilibrium position).

The key to success involved defining the main concepts in the question(s) (awarded 1 or 2 marks) and applying appropriate economic theory and analysis (usually awarded up to 2 marks).

Annotation of diagram and tables provided in any question was a good strategy, for example, Q1 (production possibility frontier) and Q5 (demand and supply equilibrium). In addition, Q2, Q3 and Q4 offered scope for candidates to introduce diagrammatic analysis as a means of demonstrating their knowledge and understanding of the issues at hand. The foundation of this paper was an understanding of the price mechanism model and its limitations. Any suitable opportunity to apply the model should be taken.

In order to maximise candidate performance it was possible to achieve the full 3 explanation marks even when an incorrect option has been selected. This occasionally arose, particularly Q2 (increase in air passenger duty).

Many candidates gained marks by using the rejection technique. Up to 3 marks are available for successfully eliminating 3 incorrect options (provided that three separate reasons are offered). There seemed to be an improvement in the use of the rejection technique compared to previous examination series. It required candidates to explicitly state the option key being rejected and then to offer an appropriate explanation. However, some candidates still fail to identify the incorrect option key and so not alerting the examiner to their rejection.

Several examples of how to successfully eliminate incorrect options are provided in the following candidate responses. A certain skill is required for this and it is important to practise the technique. Marks are not awarded for responses that simply reverse the incorrect option sentence without further explanation. Some value must be added to the answer. The mark scheme offers guidance on how to reject incorrect options.

Note it is perfectly acceptable to use a combination of techniques for securing the 3 explanation marks, for example, explaining the correct answer, diagrammatic analysis and eliminating one or more incorrect answers.

## **Section B: data response questions**

The data response questions had a substantial weighting for evaluation marks (16 out of 48 marks). Consequently, it was vital that candidates made evaluative comments when required by the question. A 14 mark question would comprise 6 evaluation marks and a 12 or 10 mark question would comprise 4 evaluation marks. An 8 or 6 mark question may include up to 2 evaluation marks.

Attention should be directed to the quality of written communication (QWC), especially in those questions identified by an asterisk in the question paper. Here, candidates should attempt to develop a coherent argument and take into account grammar and presentation. Although no explicit marks are awarded for QWC, it forms part of the overall impression that examiners take into account when awarding marks.

Both data response questions were accessible to candidates. Question 9 (UK Higher Education tuition fees) was a more popular choice with 60% of candidates selecting this, compared to 40% choosing Q10 (The price of cotton). The mean scores for these questions indicated they were comparable in terms of the demand placed upon candidates and in the marking process. A lower mean score was recorded for Q9 than Q10. This was due to a significant number of responses losing focus when answering Q9e (the economic effects of the increase in university tuition fees on the market for higher education). It revealed the importance of answering the question set rather than offering an irrelevant response.

Finally, an attempt has been made to break down and justify how the marks were awarded in the candidate responses used in this report. One should note however, that the answer to each question is really considered in its entirety rather than relying solely upon the mechanical breakdown of individual points. The latter exercise is for the benefit for candidates and teachers reading this report as to how the mark scheme is interpreted in practice. The examiner develops an impression of the quality of each response and uses the mark scheme as a guide to award marks accordingly.

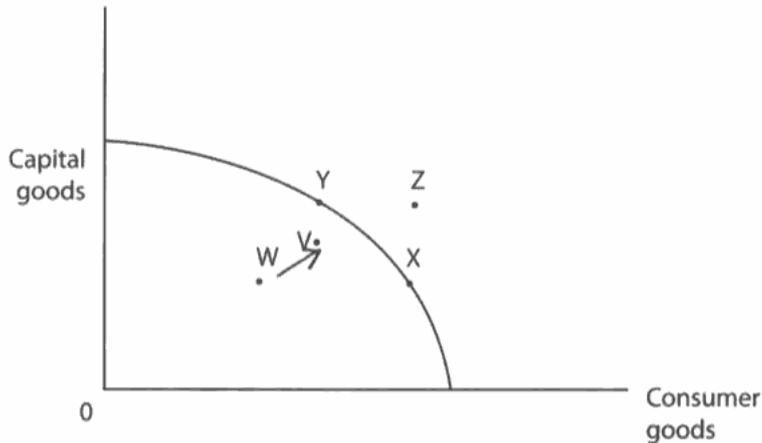
## Question 1

This was a straight forward question on an economy operating within its production possibility frontier. A significant number of responses made use of the rejection technique to gain marks.

### Section A: Answer all the questions in this section

You should spend 35 minutes on this section. Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1



The diagram shows a production possibility frontier for an economy. Which of the following changes shows a reduction in unemployed resources?

(1)

- A W to V.
- B X to Z.
- C Y to X.
- D An outward shift of the whole production possibility frontier.

Answer

A

Explanation

(3)

Production possibility frontier shows all possible combinations that can be produced by an economy with given resources, at given time, assuming full employment and efficiency. W and V are both combinations of production that are attainable with the current resources, but represent underutilisation of resources or inefficiency.

as they lie within the PPF. When W moves to V, more unemployed resources are utilised so that V is closer to PPF than W. This can be achieved without incurring opportunity costs.



### ResultsPlus

#### Examiner Comments

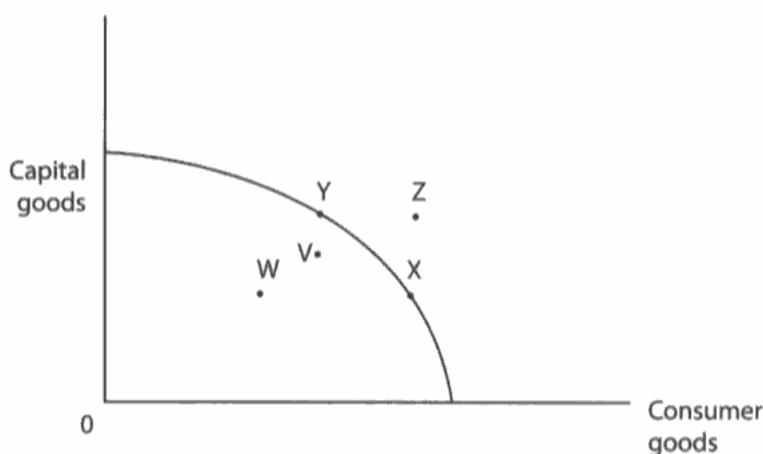
Here 3 out of 3 explanation marks were awarded. The candidate defined a production possibility frontier (1 mark) and then identified an under-utilisation and inefficient use of resources at positions W and V (1 mark). A movement from W to V meant some unemployed resources were utilised as it was closer to the frontier and no opportunity cost was involved (1 mark).



### ResultsPlus

#### Examiner Tip

Be prepared to start your answer by defining the key economic concept in the question. Quite often only partial definitions were given of the production possibility frontier.



The diagram shows a production possibility frontier for an economy. Which of the following changes shows a reduction in unemployed resources?

(1)

- A W to V.
- B X to Z.
- C Y to X.
- D An outward shift of the whole production possibility frontier.

Answer

D

Explanation

(3)

The production possibility Frontier is a curve that shows when maximum output is reached and all resources are fully and efficiently used. By reducing the number of unemployed resources, the curve should shift outwards as an increase in resources links to an increase in productivity. For instance,

if unemployment decreased, human capital would increase resulting in efficiency a more efficient productive economy. The answer cannot be ~~the~~ C as that shows the opportunity cost. It shows one different combinations of goods that can be made with the scarce resources depending on where their allocated.



**ResultsPlus**

**Examiner Comments**

Here 2 out of 3 explanation marks were awarded. The candidate defined a production possibility frontier (1 mark) and then rejected option C by explaining how the move from position Y to X depicts opportunity cost (1 mark).



**ResultsPlus**

**Examiner Tip**

Be prepared to reject incorrect options when it is easy to do so. Note how the candidate has added value to the answer.

## **Question 2**

Overall this question was well answered. Most candidates selected correct option D and identified Air Passenger Duty as a type of indirect or specific tax. This was usually supported with a diagram which shifted the supply curve inwards to depict the effects of such a tax.

A surprising minority of answers selected incorrect option C, believing that producer surplus would rise following the imposition of the tax. However, the tax actually transfers some of the producer surplus into tax revenue.

- 2 In November 2010 the UK government increased the tax for passengers flying by aircraft (Air Passenger Duty). The tax increased from £40 to £60 per passenger flying economy class from the UK to the US.

One effect of this tax is to:

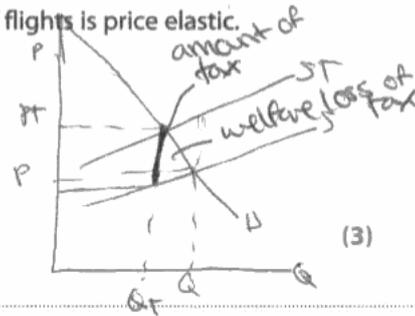
(1)

- A increase the consumer surplus for air passengers.
- B decrease the tax revenue collected if demand for flights is price inelastic.
- C increase the producer surplus for airlines if supply of flights is price elastic.
- D increase the price of air flights.

Answer

D

Explanation



A specific tax is an indirect tax which is per unit. The supply curves are parallel and supply shifts from S to ST. The tax increases the price of air flights from P to PT which results in a decrease of quantity of air flights demanded. This could be done in order for the UK government to try to reduce the negative externality of air flights to the third party. For example reduce Global Warming effects. Negative externalities are side effects of the market activity on the third party without compensation. But by taxing it <sup>more</sup> then government tax revenue will also increase.



### ResultsPlus Examiner Comments

Here 3 out of 3 explanation marks were awarded. The candidate identified Air Passenger Duty as a specific tax (tax per unit of good) (1 mark). A suitable diagram was presented which shifted the supply curve inwards and showed the unit tax and rise in market price (1+1 marks). A further explanation mark was also available for explaining the purpose of the tax - to reduce the negative externalities associated with air flights.



### ResultsPlus Examiner Tip

Be prepared to offer simple diagrammatic analysis - this unit credits the application of demand and supply diagrams to economic issues.

- 2 In November 2010 the UK government increased the tax for passengers flying by aircraft (Air Passenger Duty). The tax increased from £40 to £60 per passenger flying economy class from the UK to the US.

One effect of this tax is to:

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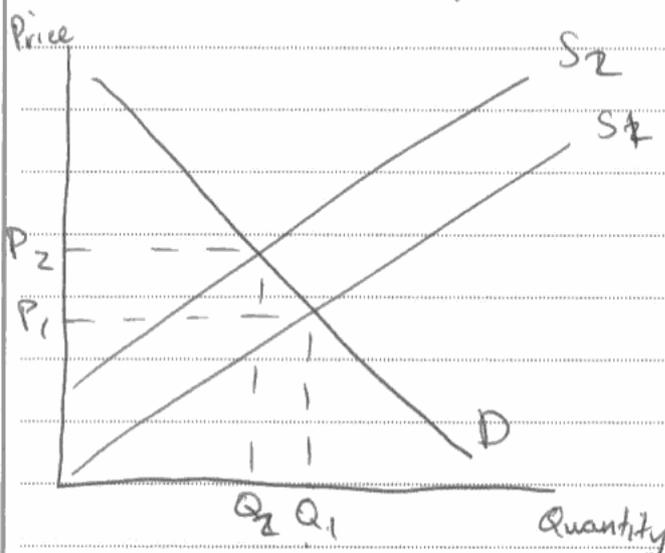
Answer

D.

Explanation

(3)

increase in tax will cause supply curve to shift to the left.



As we can see on the graph that price has increased to  $P_2$  and quantity decreased to  $Q_2$ .



**ResultsPlus**

**Examiner Comments**

Here 2 out of 3 explanation marks were awarded. The diagram shifted the supply curve inwards, depicting the original and new higher equilibrium prices (1+1 marks). However, there was no attempt to define the type of tax involved here or show the tax area.



**ResultsPlus**

**Examiner Tip**

Be prepared to define key economic concepts in the question, for example, the meaning of a specific tax.

### **Question 3**

The question required an explanation of how the 'signalling' function of the price mechanism works. The use of a demand and supply diagram would help, although it was still possible to achieve full marks without one.

One common limitation found in candidate responses were the poor definitions offered of the price mechanism. Another limitation involved explaining how the signalling function operates - there were far too many general answers rather than attempts at explaining its mechanics.

3 One function of the price mechanism is to:

(1)

- A eliminate shortages of a good by allowing its price to fall.
- B act as a signal to firms when making production decisions.
- C eliminate surpluses of a good by allowing its price to rise.
- D encourage government intervention to reduce inequality.

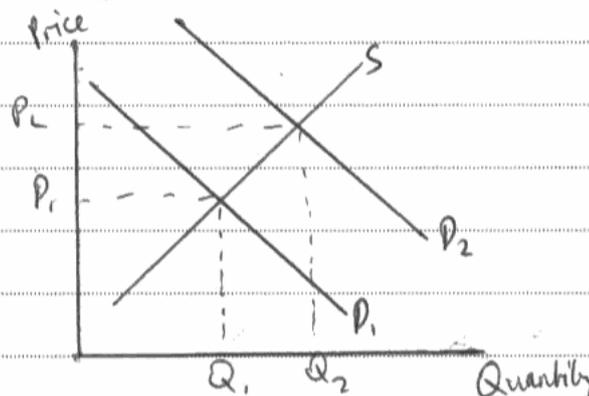
Answer

B

Explanation

(3)

The price mechanism involves the changing in demand and supply and obtaining a new equilibrium price. The price mechanism acts as a signalling device; if prices were to increase ( $P_1 \rightarrow P_2$ ) because of increased demand ( $D_1 \rightarrow D_2$ ), this increase in price acts as a signal to ~~some~~ producers. They may decide to increase supply so that they can generate more revenue because of higher demand. It is not A since falling prices eliminate surpluses, and not C because rising prices eliminate shortages.



**ResultsPlus**  
Examiner Comments

Here 3 out of 3 explanation marks were awarded. The candidate explained how an increase in demand would lead to an increase in price and so signal to firms to produce more (1 mark). This was supported with a diagram showing an increase in demand and rise in price (1 mark).

Successful rejection of options A and C was conducted by succinctly explaining why they were incorrect in the final sentence (1+1 marks). Note a maximum of 3 explanation marks were available.



**ResultsPlus**  
Examiner Tip

Be prepared to use diagrammatic analysis to support your answer.

3 One function of the price mechanism is to:

(1)

- A eliminate shortages of a good by allowing its price to fall.
- B act as a signal to firms when making production decisions.
- C eliminate surpluses of a good by allowing its price to rise.
- D encourage government intervention to reduce inequality.

Answer

A  B

Explanation

(3)

Price mechanism is the interaction of demand + supply to set prices and allocate resources efficiently.

The price mechanism helps to set prices and allocate goods in a market. Therefore it provides an idea to producers of how much they can supply and so how much to produce.



**ResultsPlus**

**Examiner Comments**

Here 1 out of 3 explanation marks was awarded. A definition of the price mechanism was offered (1 mark) but the rest of the answer was too vague in explaining how it works.



**ResultsPlus**

**Examiner Tip**

A definition of the price mechanism should refer to how resources are allocated through price responding to changes in demand or supply of a good. It was a surprise to find many candidates not referring to the resource allocation in their definitions.

## Question 4

The subsidy question was received well by candidates, recording the highest mean mark of all the supported multiple choice questions in the paper. The most effective answers defined the term and then offered a diagrammatic explanation which depicted the supply curve for electric powered cars shifting outwards and so reducing price.

4 In 2011 the UK Government introduced a unit subsidy of £5000 for new electric powered cars such as the Nissan Leaf and Mitsubishi i-MiEV. The most likely effect is to increase:

(1)

- A the demand for petrol powered cars.
- B carbon emissions from non-electric powered cars.
- C the demand for bus transport.
- D the supply of electric powered cars.

Answer

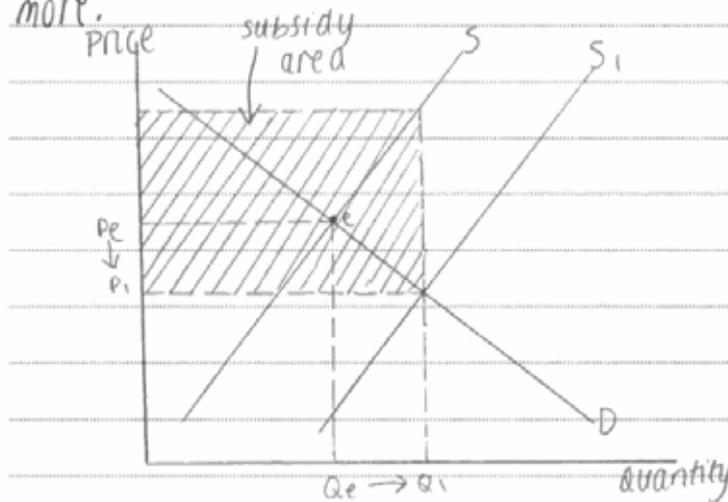
**D**

Explanation

(3)

Subsidy: is a grant given by the government to firms to increase production and reduce the price of a good or service.

If a unit subsidy of £5000 is given for new electric powered cars, then this subsidy is going to help firms cover the production costs. Because the production costs to the firm are now lower, they can afford to supply more.



**ResultsPlus**  
Examiner Comments

Here 3 out of 3 explanation marks were awarded. A definition of a subsidy (1 mark) was supported with a relevant diagram depicting a lower market price, the subsidy area and higher output (2 marks).



**ResultsPlus**  
Examiner Tip

Be prepared to use diagrammatic analysis with questions on subsidies. It is an effective way of scoring marks.

4 In 2011 the UK Government introduced a unit subsidy of £5000 for new electric powered cars such as the Nissan Leaf and Mitsubishi i-MiEV. The most likely effect is to increase:

(1)

- A the demand for petrol powered cars.
- B carbon emissions from non-electric powered cars.
- C the demand for bus transport.
- D the supply of electric powered cars.

Answer

D

Explanation

(3)

A subsidy is a grant given to a firm or organisation by the government in order to increase investment by the firm. By providing £5000 to each unit that a firm produces it means that it costs the firm less to produce and acts as an incentive to increase the supply of electric cars because it will increase their profit margin as well as helping the government achieve their target of reducing carbon emissions/pollution, to become a greener economy. By increasing supply it means the selling price can be reduced and with oil prices increasing consumers may be more inclined to invest in electric cars.



**ResultsPlus**

**Examiner Comments**

Here 3 out of 3 explanation marks were awarded. The candidate defined a subsidy (1 mark) and outlined how it acted to reduce costs to firms (1 mark). Reference was then made to why the government subsidises electric cars, namely, to reduce carbon emissions and pollution, leading to a greener economy (1 mark).



**ResultsPlus**

**Examiner Tip**

Always apply the economic concept(s) to the context of the question. There is usually at least one application mark. For example, consideration of the reason why a government might subsidise electric powered cars.

## Question 5

Price determination is at the heart of the syllabus. This question offered candidates an opportunity to demonstrate their understanding of how changes in production affects equilibrium price in a market. Many candidates achieved full marks but also a significant number scored zero marks.

5 The table shows the demand and supply schedules for packets of shortbread biscuits.

You may use the last column for your workings.

Price per packet	Quantity of packets demanded per month (000)	Quantity of packets supplied per month (000)	New quantity supplied per month (000)
£2.00	200	160	120
£2.10	180	180	140
£2.20	160	200	160
£2.30	140	220	180

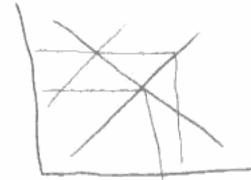
As a result of an increase in the baking costs for producing packets of shortbread biscuits, supply decreases by 40 000 packets at all prices. The new equilibrium price is:

(1)

- A £2.00
- B £2.10
- C £2.20
- D £2.30

Answer

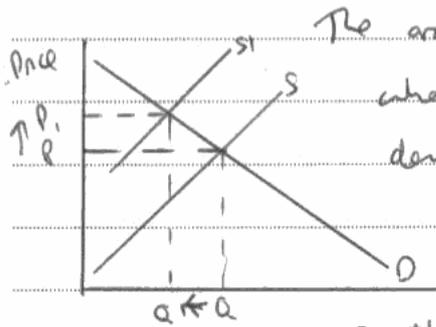
C



Explanation

(3)

The equilibrium price is where quantity demanded and quantity supplied meet on the supply and demand diagram.



The original equilibrium price was £2.10

where 180,000 packets of biscuits were demanded and supplied.

When the cost of production increases from P to P1, the quantity supplied will fall from S to S1.

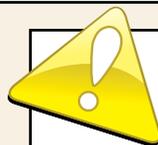
The new equilibrium price will be £2.20 when 160,000 packets of biscuits are demanded and supplied.



### ResultsPlus

#### Examiner Comments

Here 3 out of 3 explanation marks were awarded. The candidate accurately completed the last column in the table (2 marks) and showed the effects of a decrease in production by demand and supply diagram (1 mark). A definition of equilibrium price was also offered (1 mark) along with identifying the original equilibrium price of £2.10 (1 mark). This answer demonstrated how there were various ways of achieving the 3 explanation marks available.



### ResultsPlus

#### Examiner Tip

Be prepared to annotate tables and diagrams provided in questions.

5 The table shows the demand and supply schedules for packets of shortbread biscuits.

You may use the last column for your workings.

Price per packet	Quantity of packets demanded per month (000)	Quantity of packets supplied per month (000)	New quantity supplied per month (000)
£2.00	200	160	120
£2.10	180	180	140
£2.20	160	200	160
£2.30	140	220	180

As a result of an increase in the baking costs for producing packets of shortbread biscuits, supply decreases by 40 000 packets at all prices. The new equilibrium price is:

(1)

- A £2.00
- B £2.10
- C £2.20
- D £2.30

Answer

C

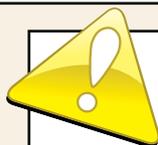
Explanation

This is an example of Price Elasticity of supply, this ~~is the respo~~ measures the responsiveness of quantity supplied to a change in price. (3)



**ResultsPlus**  
Examiner Comments

Here 2 out of 3 explanation marks were awarded. The candidate successfully completed the last column in the table, showing an understanding of how a decrease in production affected the supply curve and equilibrium price for a good.



**ResultsPlus**  
Examiner Tip

Define the key concept in the question - in this case it is equilibrium price, not price elasticity of supply.

## Question 6

The vast majority of candidates scored well on this question, explaining why public goods are a type of market failure. The best responses explained the free rider problem using a suitable example.

6 Market failure arises in a free market economy when:

(1)

- A prices fall in response to an excess supply.
- B public goods are under-provided.
- C firms exit a market.
- D government intervention leads to a misallocation of resources.

Answer

B

Explanation

(3)

Public goods are goods which are non-rivalry, non-excludable, and ~~are a~~ non-diminishable and free at the point of consumption, such as street lighting.

They are characterised by the free rider problem, so it is very difficult to charge for their consumption so the free market does not provide public goods as there is no profitability in doing so.



**ResultsPlus**

**Examiner Comments**

Here 3 out of 3 explanation marks were awarded. The candidate defined public goods (1 mark), offered an example of street lighting (1 mark) and explained the free rider problem (1 mark).



**ResultsPlus**

**Examiner Tip**

Be prepared to offer economic analysis, for example, explaining how the free rider problem occurs. This will always be credited with marks. There is no guarantee that future mark schemes will automatically credit answers which give examples of public goods unless accompanied with a suitable explanation.

6 Market failure arises in a free market economy when:

(1)

- A prices fall in response to an excess supply.
- B public goods are under-provided.
- C firms exit a market.
- D government intervention leads to a misallocation of resources.

Answer

B

Explanation

(3)

- Definition of ~~market~~ a free market economy (e.g. resources are allocated by the price mechanism and there is no government intervention).
- Definition of market failure (e.g. price mechanism and market fails to allocate resources efficiently).
- For example of market failure are externalities, public goods, monopoly formation, etc.



**ResultsPlus**

**Examiner Comments**

Here 2 out of 3 explanation marks were awarded. The answer just included definitions of a free market economy (1 mark) and market failure (1 mark). There was no attempt to explain why under-provision of public goods represented a market failure.



**ResultsPlus**

**Examiner Tip**

Define key economic concepts - up to 2 marks may be available, depending on the question.

## Question 7

The question on geographical mobility of labour was well answered by most candidates. The best responses gave a real world example of regional house price differences, for example, comparing London and the south east with other parts of the country.

A common error found in many responses concerned the attempts to reject option B. It was insufficient to expect to gain a mark for repeating the incorrect key - some value must be added to the answer. It was not enough to state that 'geographical mobility of labour would decrease following an increase in rail and bus fares'. Instead, the rejection answer should consider why an increase in rail and bus fares reduce geographical labour mobility, namely, it becomes more expensive for workers to travel to and from work and many cannot afford the fares.

7 Which of the following is **most** likely to increase the **geographical** mobility of labour in the UK?

(1)

- A An increase in the average age of the workforce.
- B An increase in rail and bus fares.
- C A decrease in regional house price differentials.
- D A decrease in the proportion of skilled workers in the labour force.

Answer

C

Explanation

(3)

The geographical mobility of labour refers to the ability of the workforce to be able to move from one place to another with ease, for a new job for example. If there was a decrease in regional house price differentials then that means someone from Glasgow will find it easier than before to move to London for a new job because there isn't a big change in the value of houses in different regions of the country. cannot be option D because (skilled workers) refers to the occupational mobility of labour, not geographical.



**ResultsPlus**

Examiner Comments

Here 3 out of 3 explanation marks were awarded. The candidate accurately defined geographical mobility of labour (1 mark) and identified that falling regional house price differences would make it easier to move, say from one region to London (1 mark).

This was supported by rejection of option D since the proportion of skilled workers in the labour force is concerned with occupational mobility of labour (1 mark).



**ResultsPlus**

Examiner Tip

Offer accurate definitions, for example, the geographical mobility of labour is concerned with the ability of workers moving location to take available work. Also, do not confuse 'mobility' with 'immobility' of labour.

7 Which of the following is **most** likely to increase the **geographical** mobility of labour in the UK?

(1)

- A An increase in the average age of the workforce.
- B An increase in rail and bus fares.
- C A decrease in regional house price differentials.
- D A decrease in the proportion of skilled workers in the labour force.

Answer

C

Explanation

(3)

Geographical mobility is the ability of ~~cost~~ workers to move to different regions to work. A decrease in regional house price differentials will make houses more affordable thus making it easier for workers to move and improve their geographical mobility.



**ResultsPlus**

**Examiner Comments**

Here 2 out of 3 explanation marks were awarded. A definition of geographical mobility of labour (1 mark) was backed up with the idea of housing becoming 'more affordable' as regional house price differences decrease (1 mark).



**ResultsPlus**

**Examiner Tip**

Offer a real world example of how geographical mobility of labour could increase - consider falling house price differentials between London and another region. The answer is clearly too brief for maximum marks and requires further development.

## Question 8

The question on pension contributions proved to be quite challenging, largely because some candidates did not have a basic understanding of its meaning. It recorded the lowest mean score on the paper. However, there were some excellent responses which defined imperfect information and considered the problem caused by the long time period between employee contributions and benefits.

- 8 In 2010 the UK Government expressed concern that many workers had **not** made adequate pension contributions to fund their retirement. A possible explanation for this under funding of pensions is:

(1)

- A pensions are a public good. ✗  
B there is no opportunity cost to making pension contributions. ✗  
C workers have imperfect information.  
D tax incentives for making pension contributions have increased. ✗

Answer

C

Explanation

(3)

Ans: Imperfect information or asymmetric information is when one party (the producer or consumer) has unequal or imperfect information compared to the other. The answer is not A since pensions do not have the public goods characteristics of non-excludability and non-rivalry. Also it is not B since there is always an opportunity cost involved, for instance to use current money to purchase a new house or a car.



**ResultsPlus**  
Examiner Comments

Here 3 out of 3 explanation marks were awarded. The response started with an explanation of imperfect information (1 mark) and then offered suitable rejection of options A and B (1+1 marks).



**ResultsPlus**  
Examiner Tip

Be prepared to use the rejection technique when uncertain about how to answer a question. Usually, candidates can narrow down an answer to a couple of options - so explain why the other options are incorrect.

8 In 2010 the UK Government expressed concern that many workers had **not** made adequate pension contributions to fund their retirement. A possible explanation for this under funding of pensions is:

(1)

- A pensions are a public good.
- B there is no opportunity cost to making pension contributions.
- C workers have imperfect information.
- D tax incentives for making pension contributions have increased.

Answer

C

Explanation

(3)

Imperfect information is when a consumer does not have knowledge of the potential costs or benefits of consuming a good in the long run. Workers who are young are unlikely to think or consider what it will be like to be old and have more temptation to spend in the short run thus they do not make contributions so they can spend the money now despite the fact that this is market failure. The answer cannot be B because there is an opportunity cost of pension contributions in that the money is then not available to be spent elsewhere.

(Total for Question 8 = 4 marks)



**ResultsPlus**

**Examiner Comments**

Here 3 out of 3 explanation marks were awarded. The answer explained the meaning of imperfect information (1 mark) and then referred to the long time span between making pension contributions and receiving the benefits which affect peoples' decisions (1 mark). Finally, option B was rejected (1 mark).



**ResultsPlus**

**Examiner Tip**

Offer some application to the context - consider why workers might not make sufficient contributions for old age. An obvious reason is myopia from the long time lag between making contributions and receiving benefits.

## Question 9(a)

This question was well answered and more than half of all candidates achieved maximum marks. The most common mistake was a lack of application to the titles of the extracts.

(a) With reference to the titles of Extract 1 and Extract 2, distinguish between positive and normative statements.

(4)

A positive statement is a statement of fact, which can be proven or disproven by appealing to the facts. Extract 1 is a positive statement, 'The university tuition fees increase up to a maximum of £9,000 a year.' This statement can be proven by looking at the facts.

Normative statement is a value judgement, or opinion. It cannot be proven or disproven by looking at facts. It contains words such as 'ought'. Extract 2 title is a normative statement, 'Higher university fees are unfair to students from low income families.' It's normative as it includes 'are unfair' showing someone's opinion, value judgement.



**ResultsPlus**

**Examiner Comments**

Here 4 out of 4 marks were awarded. The definition of a positive economic statement (1 mark) was supported by reference to the increase in tuition fees in extract 1 (1 mark).

The definition of a normative statement (1 mark) was supported by reference to higher university fees being 'unfair' in extract 2 (1 mark).



**ResultsPlus**

**Examiner Tip**

Always read the question instructions carefully. Candidates were required to refer to the titles of both extracts in their answer - not the content.

(a) With reference to the titles of Extract 1 and Extract 2, distinguish between positive and normative statements.

(4)

Positive statements are statements that can be scientifically proven true or false and could be supported by evidence - Extract 1

whereas, normative statements are statements with value judgments; a person's opinion, cannot be supported by evidence - Extract 2



**ResultsPlus**

**Examiner Comments**

Here 2 out of 4 explanation marks were awarded. The definition of positive and normative statements (1+1 marks) lack sufficient application to the two extract titles.



**ResultsPlus**

**Examiner Tip**

Always explain a normative statement in terms of being a value judgement that cannot be tested as true or false rather than using the term 'opinion'.

### **Question 9(b)**

This question was a bit more challenging since six explanation marks were available from developing one economic concept namely, opportunity cost. The better answers considered opportunity cost to students in terms of both use of their time and the funds foregone.

A minority of responses lost focus and considered the opportunity cost of not going to university or the opportunity cost to the universities or government rather than to students.

(b) With reference to the information provided and your own knowledge, explain the opportunity cost of higher education to students.

(6)

An opportunity cost is the loss of the next best alternative. Higher education has many costs that include financial costs and time. Higher education usually provides 3 year courses for students so this time cannot be used for other things such as training schemes, gaining experience in the work place, spending time with family members, leisure time or even ~~gain~~ getting a variety of jobs. Also, ~~there~~ there are large financial costs. There are many goods or services or other alternatives that this money could be spent. Extract 1 shows that three quarters of the universities will increase their tuition fees to £9000; an increase of 174%. This money could be spent on leisure time, investing in stocks, setting up their own business, buying property or a car and many other high cost things. However, this ~~is~~ cannot be done if the money is spent on higher education; losing the next best alternative. Extract 2 shows that 14% of low income households have no longer



### ResultsPlus Examiner Comments

Here 6 out of 6 explanation marks were awarded. A definition of opportunity cost (1 mark) was supported with the alternative use of one's time such as possible work experience, training or leisure (1+1 marks). The financial aspects of opportunity cost was also considered in terms of not having to pay £9000 a year in tuition fees (1 mark for data use) and using the funds to start a business or buy a property (1+1 marks).



### ResultsPlus Examiner Tip

Be prepared to develop several ideas when considering the opportunity cost for students going to university. However, make sure the focus is on students - not universities or the government.

(b) With reference to the information provided and your own knowledge, explain the opportunity cost of higher education to students.

(6)

Opportunity cost is the benefits forgone of the next best alternative.

The students face a choice between paying for the increased costs of university or using their A-levels to get a job - taking a financial risk.

The opportunity cost here is that the money used in ~~is~~ ~~the~~ paying back a student loan could be money that the student spends on something else or even saves in a bank.

By going to university, there is a time lag before the benefits of having a working graduate in the economy come out. If the student chooses to not go into higher education then the money would be benefiting the economy in the short term.



**ResultsPlus**

**Examiner Comments**

Here 4 out of 6 explanation marks were awarded. The definition of opportunity cost (1 mark) was supported with the possible alternative use of one's time such as getting a job (1 mark).

The avoidance of a student loan and alternative use of funds such as saving in a bank was also credited (1+1 marks).

## Question 9(c)

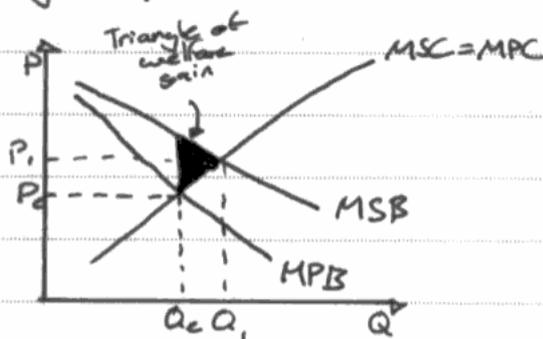
Private and external benefits have been frequently tested on previous examination papers and so should be at the forefront of candidate revision. However, it appeared that candidates had greater difficulty in using diagrammatic analysis when compared to external costs. A significant number of answers offered incorrect diagrams which limited their achievement.

However, this question was generally well received by candidates and there were many excellent answers which offered an explanation of the private and external benefits gained from university education, relevant diagrammatic analysis and evaluative comments. It differentiated effectively between the quality of responses.

\* (c) Evaluate the likely private benefits and external benefits of university education. Illustrate your answer with an appropriate diagram.

(14)

Private benefits are positive effects internal to a transaction which are taken into account by the price mechanism. External benefits, or positive externalities, are positive spillover effects external transaction, and as such are not taken into account by the price mechanism. When external benefits exist, Marginal social benefits outweigh marginal private benefits.



The triangle of welfare gain represents the net welfare loss to the economy when consumption is at equilibrium  $P_e Q_e$  rather than social optimum  $P_s Q_s$ .

Private benefits of university education include higher earning potential; graduates earn on average £160,000 over their lifetime ~~and~~ than a <sup>non</sup> graduate with A levels. Graduates have higher employment rates than non-graduates.

There are also private benefits to the universities.

University education gives universities funding for research and to improve facilities or employ more teachers to improve

their student/teacher ratios.

Positive externalities of university education include:

a more competitive UK economy, as human capital is improved and innovation and invention is more likely. Increased profits to firms as an increase in the availability of supply of skills increases productivity as wages get driven down for highly skilled labour if there are more highly skilled graduates, and training costs go down if graduates come into the workforce already possessing vocational skills.

However, ~~the~~ university education could promote and aggravate income inequality, <sup>data reference</sup> particularly as costs of education go up, as lower-income households are unable to send their children to university, while the wealthy ~~include~~ <sup>include</sup> improve their earning potential which leads to a vicious cycle of the poor being unable to afford ~~the~~ university education that could help them stop being poor. ~~There~~

There is also a significant time lag before the benefits of higher education are felt, eg graduates might not see the fruition of their £160,000 lifetime earnings until near the end of their working life, and even if there was a surge in higher education, it would take 3+ years for firms to start seeing the benefits ~~of~~ a large number of highly skilled new employees.

This also depends on the types of degrees being studied  
eg If they are not vocational, and only act as signifiers  
eg Arts degrees, then they may not actually improve  
human capital and instead just result in lost earnings  
eg English graduates working as baristas.



## ResultsPlus

### Examiner Comments

Here 14 out of 14 marks were awarded. The candidate defined private and external benefits (1+1 marks) and followed up with application to university education: private benefits included the increased earnings for graduates and higher employment rate as well as increased income for university research (1+1 marks); external benefits included a more competitive economy, increased innovation and profits for firms (1+1 marks). The positive externality diagram with explanation was also credited with 4 marks. Note a maximum of 8 KAA marks were available.

Evaluation marks were secured by referring to possible costs of higher education in terms of creating income inequality, a discussion of the time lag before the benefits of higher education were felt and finally consideration of the benefits from different types of degree courses (2+2+2 marks).



## ResultsPlus

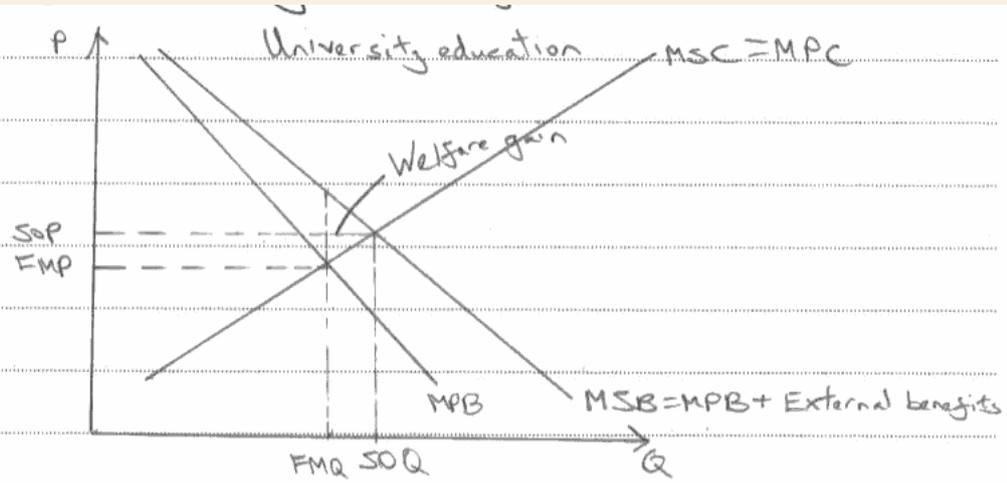
### Examiner Tip

There are 6 evaluation marks available in the 14 mark base questions (usually 2+2+2 or 3+3 marks). Be prepared to offer up to 3 evaluative points to secure all the marks.

\*(c) Evaluate the likely private benefits and external benefits of university education. Illustrate your answer with an appropriate diagram.

(14)

Private benefits are benefits to the ~~person~~ producer or consumer.  
For example a private benefit of university education to a student may be an overall increase in wealth in their lifetime. External benefits are benefits to a third party who is not the producer or consumer and not part of the transaction. An example of an external benefit of university education is increased competitiveness of firms due to the people being more innovative and the human capital of the country increasing.



As can be seen in the above diagram, ~~in a~~ free market, people will most likely consume university education to the free market quantity and price where  $MPC = MPB$ . However, governments would like people to take into account the external benefits of university education and thus lead to the socially optimum quantity and price where ~~MSC = MPB~~  $MSC = MSB$ , which will lead to a welfare gain, which is the gain of producer

and/or consumer surplus due to efficiency.

As can be seen in extract 1, it is estimated that university graduates will benefit from over £160 000 more over their lifetime in wages, as they will be able to enter more skilled, well-paid jobs.

In addition, <sup>increase in</sup> university education will increase the human capital and can lead to both firms and governments benefiting. Firms will benefit as they will become more competitive, which means that they can produce more, increasing their revenue.

Governments will also benefit as they will receive an increase in tax revenue from both people & firms.

People, as they may have an increase in wages and firms, due to their increase in profits.

However, as seen in extract 1, university graduate

unemployment levels is quite high. And, especially with UK reentering a recession in April 2012 it is unlikely that it will be easy for the university graduates to find a job. Therefore making it possibly not true that the student and economy will benefit.

Moreover, if too many people go to university, there may not be enough skilled jobs in the economy. This will again thus lead to an increase in unemployment again as there may not be any job vacancies in skilled jobs.

Furthermore, it is possible that due to the university graduates not being able to find a job, the burden of

the debt may be passed onto the government which will make their costs increase.

In addition, the firms may not benefit from an increase in profits. This is due to it being possible that the university graduates will demand higher wages and so will increase their costs, so they may not earn as much profits.



## ResultsPlus

### Examiner Comments

Here 12 out of 14 marks were awarded. A definition of private and external benefits (1+1 marks) was supported with application to university education: private benefits included an increase in wealth and income for graduates (1 mark) and external benefits included the increase in competitiveness of firms in the economy due to higher quality of human capital and greater tax revenue for government (1+1 marks). A suitable positive externality diagram was offered with explanation (4 marks). Note a maximum of 8 KAA marks available.

Evaluation came in the form of a discussion on the high graduate unemployment levels which could undermine the benefits of university education and its further development, namely, a lack of skilled job vacancies in the economy and its impact on government finances (2+2 marks).



## ResultsPlus

### Examiner Tip

Always label the curves in diagrams and offer a brief explanation. Up to 4 marks are available for a positive externality diagram. Note; a simple label error on one of the curves will jeopardise most of these marks.

### Question 9(d)

This question required two calculations of price elasticity of demand and it was rather surprising that the majority of candidates struggled to obtain the correct answers. However, the mark scheme permitted candidates to achieve full marks even without these calculations.

(d) With reference to Extract 2 and using price elasticity of demand calculations, assess the likely impact on *student applications* of an increase in tuition fees from £3,290 to £7,000.

(10)

Price elasticity of demand is the responsiveness of demand to changes in price.

$$PED \approx \% \Delta \text{ in price} = \frac{7000 - 3290}{3290} \times 100$$

$$\approx 112.8\%$$

$$PED \text{ for Low income households} - PED = \frac{14\%}{112.8\%}$$

$$\approx 0.12$$

$$\text{Better off households} - PED = \frac{7\%}{112.8\%}$$

$$\approx 0.06$$

University education is more inelastic (almost perfectly inelastic) for better off households. This means those who are better off will continue to apply for university, as the value the benefits of higher education greatly.

To evaluate, it is those in the middle income groups who will suffer most because the rich will be able to afford it and the poor can get grants of up to £3,250 per year as well as bursaries from universities.

Applications from <sup>households</sup> Lower income families has decreased by 14% (double the amount from better off households). This means the increase in price has deterred those from

less privileged backgrounds to apply.

To evaluate, there are grants and bursaries available to help <sup>students from</sup> low income households. Therefore, it might not have a huge impact in the long term because the cost will be smaller for them.

On the other hand, the tuition fees are only one part of the cost of education, there is then living expenses, socialising expenses and buying <sup>the</sup> equipment ~~for~~ needed.

Student Applications by students wanting to study Arts and Humanities <sup>is expected to</sup> ~~has fallen~~, which suggests the price elasticity of demand for these subjects are elastic. Whereas, applications by students wanting to study law and medicine ~~has~~ is expected to be hardly unaffected, which shows the P.E.D for these subjects are inelastic. Therefore, degrees that are price inelastic in demand will continue to ~~experience~~ <sup>experience</sup> a similar number of people applying.



**ResultsPlus**

**Examiner Comments**

Here 10 out of 10 marks were awarded. A definition of price elasticity of demand (1 mark) is supported with correct answers for the respective price elasticities of demand for high income (-0.06) and low income students (-0.12) (2+2 marks). Identification of university education being price inelastic in demand was also appropriate here (1 mark). All 6 KAA marks gained.

Evaluation came in the form of discussion on grants and bursaries to help students from low income families (2 marks) and on the significance of the type of university courses available - some are more price inelastic in demand than others (2 marks).



**ResultsPlus**

**Examiner Tip**

Always show your workings in calculation questions as marks are usually available for this. Practise calculating elasticity questions, using real world data.

(d) With reference to Extract 2 and using price elasticity of demand calculations, assess the likely impact on *student applications* of an increase in tuition fees from £3,290 to £7,000.

(10)

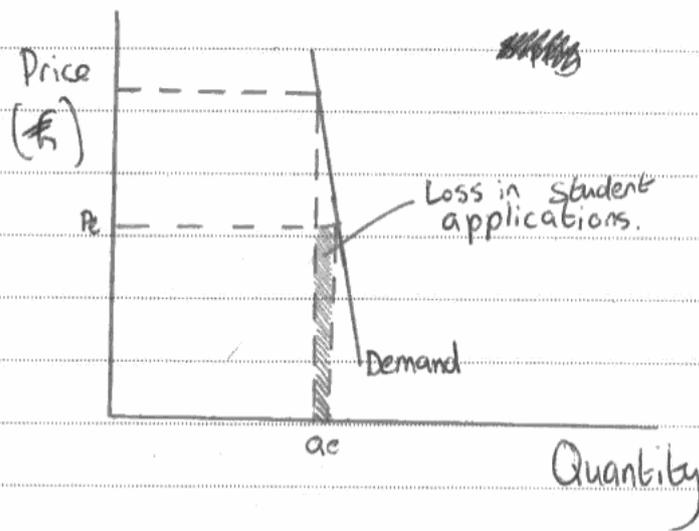
Price elasticity of demand is the measure of how responsive demand is to a change in price.  $PED = \frac{\% \Delta QD}{\% \Delta P}$

$$3,290 \rightarrow 7000 = 3710$$

$$\frac{-14\%}{112.7\%} = \text{PED} = -0.12 \quad \frac{3790}{3290} \times 100 = 112.76 \quad \frac{-9\%}{112.7\%} = -0.07$$

Price elasticity of demand for low income houses = -0.12  
Price elasticity of demand for better-off households = -0.07

An increase in tuition fees is likely to have only a small effect on demand for higher education. This means student applications should not fall by that much. This is because the price elasticity of demand for both 'better-off households' and 'lower income households' is price inelastic. This is because PED is between 0 and 1 for both of them. This means student applications and subsequently demand is unlikely to change much which is illustrated on the diagram on the next page showing even a significant increase in price won't bring that much of a decrease in student applications. This is because of just how price inelastic the demand for higher education is.



## ResultsPlus

### Examiner Comments

Here 6 out of 10 marks were awarded. A definition of price elasticity of demand (1 mark) was supported with accurate workings and calculations for students from low income (-0.12) and high income families (-0.07) (2+2 Marks). Identification of demand being price inelastic was also relevant here (1 mark). The maximum 6 KAA marks were achieved with ease.

Unfortunately the candidate offered no evaluative comment.



## ResultsPlus

### Examiner Tip

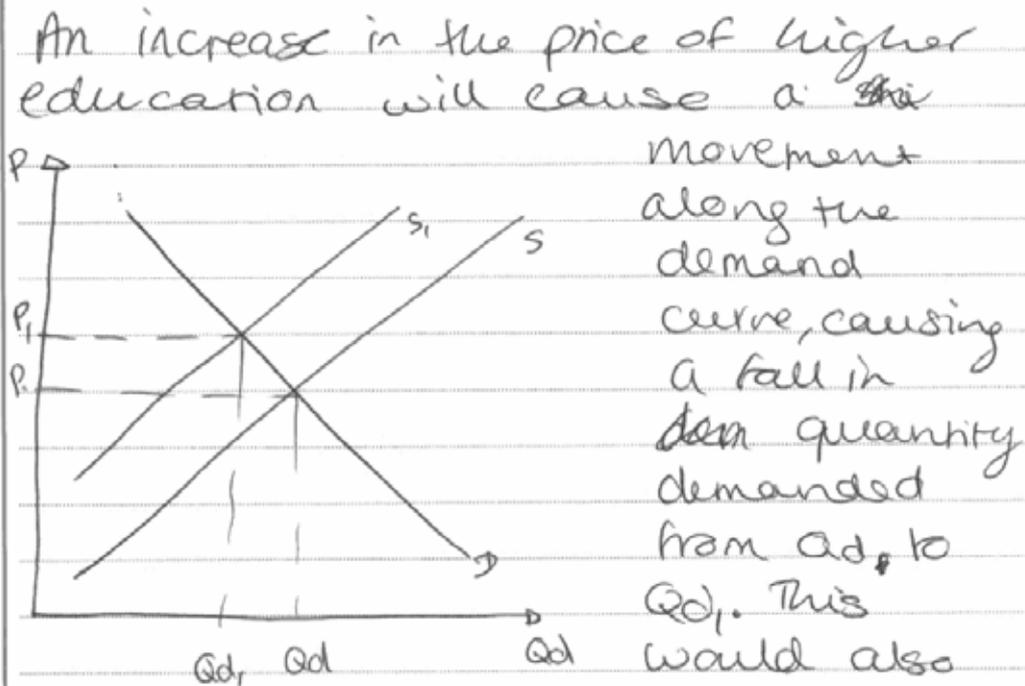
Always offer evaluative comments when required. The question clearly states the instruction 'assess' the impact of higher tuition fees on student applications.

## Question 9(e)

A significant number of candidates misread the question and discussed the possible economic effects of an increase in university tuition fees on the general economy rather than the market for higher education. It highlighted the importance of spending time to plan answers for high mark base questions so that they remain relevant throughout.

\* (e) Discuss the possible economic effects of an increase in university tuition fees on the market for higher education.

(14)



Furthermore as demand for higher education is very inelastic as shown in question (d) this would increase ~~the~~ ~~as~~ the revenue for universities as ~~there~~ a ~~high~~ increase in price would only ~~cause a small fall in~~ 11.5% increase in price would only cause an average of 11.5% decrease in demand. This means that universities will have more

money to invest in improving their education system. Furthermore as universities have more ~~the~~ revenue they could choose

to expand to accept more students, this would further increase tax revenues and the productivity of our economy. On the other hand this increase in tuition was brought about by the <sup>30%</sup> cut in government spending on education. This means that they are compensating for a loss which means that universities may not have an increase in revenue.

Another effect of increase tuition would be that students will value their education more as they are having to make a much larger contribution, this would push universities to improve their teaching and efficiency which would improve the education system altogether and increase the ~~social~~ private as well as

external costs of education. Furthermore, this ~~could~~ ~~improve~~ could improve the UK universities reputation as students ~~are~~ receive better education as well as being more driven to get better grades due to higher prices. This ~~means~~ ~~that~~ ~~the~~ ~~government~~ may attract more foreign students ~~at~~ who are seeking better education. This would increase investment and would

generate earnings from foreign students. On the other hand this may only be affect some as ~~the~~ lower income household students will not be able to afford the fees or will be ~~are~~ discouraged which ~~is~~ could cause inequalities, furthermore only high income foreign students could be able to afford the fees causing universities to become elitist.

In conclusion, education is very important in the economy however it could have negative effects <sup>on lower income households.</sup>

(Total for Question 9 = 48 marks)



## ResultsPlus

### Examiner Comments

Here 12 out of 14 marks were awarded. A range of effects were explained following the increase in tuition fees, such as a fall in demand (1 mark) and that demand is price inelastic, leading to increased revenue for universities, who could then expand the number of places on offer (3 marks).

The idea that students would value their education more and are driven to get higher grades and so push universities to improve teaching and efficiency was also credited (3 marks). A suggestion that more foreign students might be attracted to a higher quality of university education was also accepted (1 mark). Overall, the full 8 KAA marks were achieved.

Evaluation came in the form of discussing how the extra funds from tuition fees were just compensating for reduced government funding of universities and how it might adversely affect applications from foreign students (2+2 marks).



## ResultsPlus

### Examiner Tip

Be prepared to use the information provided in the extracts to answer this type of question. Candidates are not expected to be experts on the higher education market, but rather, use the prompts and ideas from the text to score marks.

\*e) Discuss the possible economic effects of an increase in university tuition fees on the market for higher education.

(14)

An increase in tuition fees may benefit both ~~consumers~~ students and the university. It may also benefit society.

Students may learn to value education more strongly and thus devote more time studying. They will also have to learn to manage their finances, which is a good skill for the future. ~~The~~ Tuition fees may be high, however students will still gain compared to a non-graduate because their future earning potentials ~~has been estimated~~ are higher, they receive £160,000 over a working lifetime ~~higher~~ more than non-graduates. Students may also become more competitive and apply to courses which yield higher earning potentials in the future.

There will also be benefits for the university as they become more efficient, this will also benefit the satisfaction ~~consumers~~ students gain from teaching. Universities by obtaining more funds may invest more and improve equipment together with quality of teaching.

There will be less impact on government finances, so the government could spend elsewhere ~~the~~. However on the other hand new universities may suffer as demand for university may

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decrease, and therefore many universities may close.

The range of ~~substitutes~~ courses will also suffer as students will divert to courses which yield greater potential earnings, so the quality in ~~the~~ these & courses may decrease.



## ResultsPlus

### Examiner Comments

Here 8 out of 12 marks were awarded. A range of points were credited with marks, for example: students learn to value education more strongly and devote more time to studying (2 marks); universities obtain more funds and so become more efficient and improve equipment and quality of teaching (2 marks); improved government finances (1 mark).

Evaluation came in the form of discussion on the impact of higher tuition fees on the new universities who may face a significant fall in student demand, reduce their courses on offer and even face the prospect of closure (3 marks).



## ResultsPlus

### Examiner Tip

Be prepared to consider the advantages and disadvantages of an issue, for example, the increase in university tuition fees - this is an effective way of securing evaluation marks.

Be prepared to consider the economic effects on different stakeholders, for example, consumers and producers in higher education. This is another way of securing evaluation marks.

## Question 10(a)

This was a typical data response question. Candidates were tested on their comprehension and analytical skills of the information provided and are then required to use demand and supply analysis to explain changes in the price of cotton.

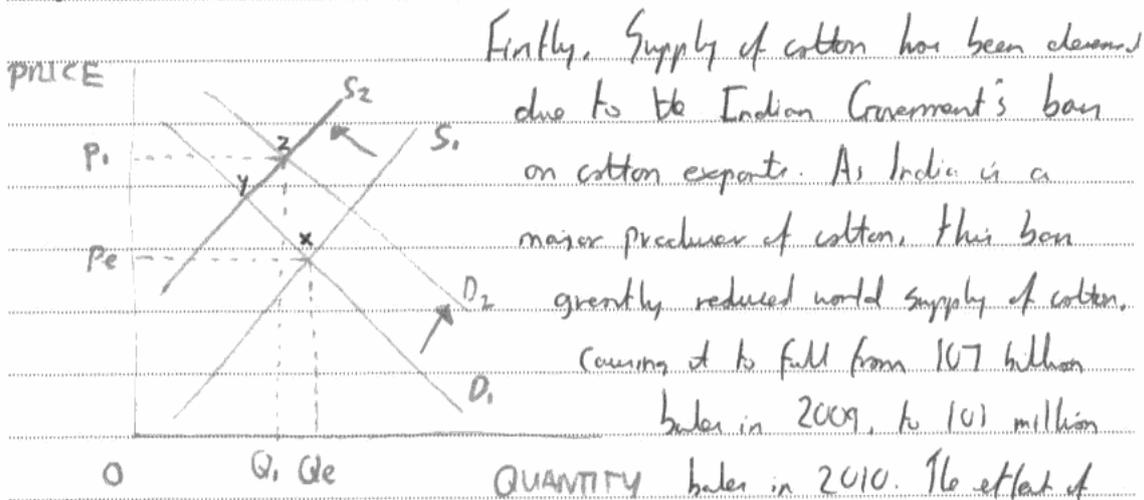
Many candidates achieved marks by bringing together a series of techniques, namely: making explicit use of the data; constructing a demand and supply diagram; explaining the causes of the rise in price following the decrease in supply of cotton. This typically achieved 4 marks - around half of candidates achieved this mark.

However, a further 2 marks were available for explaining the increase in demand for cotton and drawing it on the diagram- often missed by candidates.

(a) With reference to Figure 1 and Extract 1, outline why the price of cotton more than doubled in 2010. Use a demand and supply diagram in your answer.

(6)

According to the graph in Figure 1, the price in cotton more than doubled in 2010, shooting up to roughly 225 US cents per pound. This has been caused by reduced supply & increased demand.



Firstly, supply of cotton has been decreased due to the Indian Government's ban on cotton exports. As India is a major producer of cotton, this ban greatly reduced world supply of cotton, causing it to fall from 107 billion bales in 2009, to 101 million bales in 2010. The effect of this was that the supply curve  $S_1$  shifted inward to  $S_2$ , causing quantity to decrease, & price of cotton to rise, causing price equilibrium to move upwards from  $x$  to  $y$ .

However, the increase in cotton prices was further increased by increased demand. This was caused by "speculators buying up large quantities of cotton in the hope of making profits" says Extract 1. They have been encouraged to do this, as the high prices in the cotton markets have acted as an incentive for these speculators to make big profits. Therefore they have tried to take advantage by buying more

cotton. This has raised the demand curve to shift outwards to  $D_2$ , causing Quantity to increase, the price to be pulled up even further, up to  $P_2$ . The new equilibrium is at  $Z$ , showing how much price has increased from original equilibrium at  $X$ .



## ResultsPlus

### Examiner Comments

Here 6 out of 6 explanation marks were awarded. A relevant diagram was offered which depicted a decrease in supply and increase in demand, along with the original and new equilibrium price (4 marks). This was supported with the reasons for the price increase - Indian government cotton export ban, decreasing supply and speculative buying by investors, increasing demand (1+1 marks).



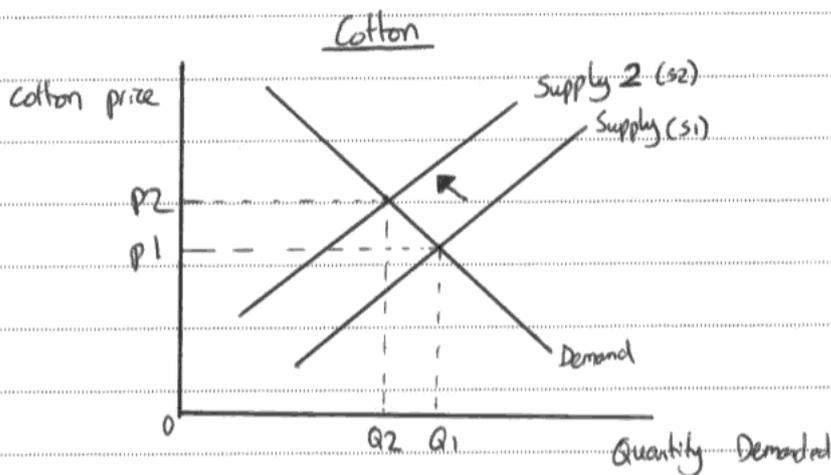
## ResultsPlus

### Examiner Tip

Show both the demand and supply curves shift on the same diagram. Always label the axes, curves and equilibrium positions.

- (a) With reference to Figure 1 and Extract 1, outline why the price of cotton more than doubled in 2010. Use a demand and supply diagram in your answer.

(6)



Due to 'China and Pakistan were hit by floods' This has reduced the available factor of production land. This is represented by a shift in the supply curve from  $S_1$  to  $S_2$ .

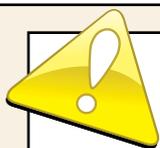
This causes the price to increase from p1: 75 cents per pound to 160; P2 in Figure 1 between 2010.



**ResultsPlus**

**Examiner Comments**

Here 4 out of 6 explanation marks were awarded. The candidate achieved 2 marks for the diagram and 1 mark for explaining the decrease in supply in terms of the floods in China and Pakistan. 1 mark was secured by explicit use of the price data from Figure 1. Unfortunately, no mention was made of speculative buying of cotton from profiteers.



**ResultsPlus**

**Examiner Tip**

Carefully read the information in the extract as it clearly identifies speculative buying of cotton as a cause of the increase in its price.

### Question 10(b)

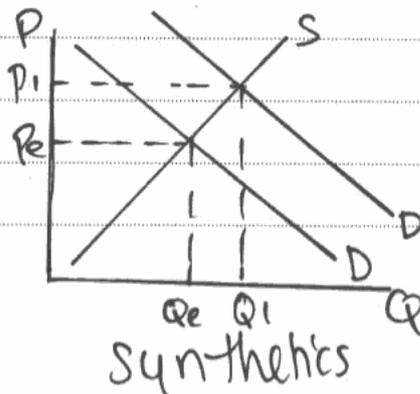
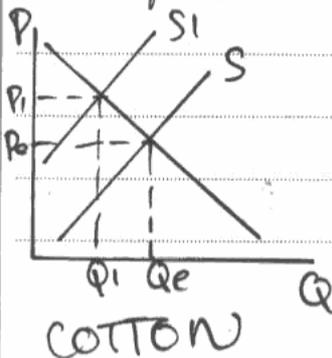
This was a straight forward question and some sixty per cent achieved the maximum 4 marks available, displaying a good understanding of cross elasticity of demand.

(b) Referring to cross elasticity of demand, explain the likely relationship between the price of cotton and the demand for synthetic materials used in making clothing. (Extract 1, lines 10-11).

(4)

Cross elasticity of demand  $\rightarrow$  measures the responsiveness of quantity demanded of good A to a change in price of good B.

The XED for synthetics and cotton will be positive. As they are substitutes



as the price of cotton increases the demand for synthetics will also increase.



**ResultsPlus**

**Examiner Comments**

Here 4 out of 4 explanation marks were awarded. A definition of cross elasticity of demand (1 mark) was followed by identifying that cotton and synthetic materials were substitutes with a positive cross elasticity (1+1 marks).

Credit was also given to the diagrams (1 mark) and direct application which showed how an increase in price of cotton caused an increase in demand for synthetic materials (1 mark). Note a maximum of 4 marks was available.



**ResultsPlus**

**Examiner Tip**

Be prepared to offer diagrammatic analysis when relevant.

(b) Referring to cross elasticity of demand, explain the likely relationship between the price of cotton and the demand for synthetic materials used in making clothing (Extract 1, lines 10–11).

$\frac{\% \Delta QD \text{ of good A}}{\% \Delta P \text{ of good B}}$  (4)

Cross elasticity of demand =  $\frac{\% \Delta QD \text{ of good A}}{\% \Delta P \text{ of good B}}$

As the change in price of cotton is increasing rapidly, this could mean that the quantity demanded of synthetic materials increases as they are substitutes have a negative cross elasticity of demand. E.G. -0.7



**ResultsPlus**

**Examiner Comments**

Here 3 out of 4 explanation marks were awarded. The formula for cross elasticity of demand (1 mark) was supported with the idea that a rise in price of cotton would cause an increase in demand for synthetic materials (1 mark), along with the goods being substitutes (1 mark). The candidate confused a negative with a positive cross elasticity relationship.



**ResultsPlus**

**Examiner Tip**

Always consider how a change in price of one good affects the demand for the other when dealing with cross elasticity - not how a change in demand for one good affects the demand for the other good.

## Question 10(c)

Questions on price elasticity of supply have been problematic in previous examination series. Many candidates confused the determinants of price elasticity of supply with the determinants of price elasticity of demand. However, in this examination series things improved since only around ten per cent of candidates made the mistake.

Another common mistake was to confuse the movement along a supply curve with shifts in the supply curve. A significant number of candidates still made this error and even showed a diagram shifting the supply curve outwards and discussed how it caused price to fall.

However, there were lots of excellent answers and over twenty five per cent of responses achieved 8 or more marks out of the 10 marks available.

(c) With reference to Extract 1, discuss the factors that are likely to influence the price elasticity of supply of cotton.

(10)

Price elasticity of supply measures the responsiveness of quantity ~~demanded~~ supplied to a change in price. Price elasticity of supply of cotton will tend to be relatively price inelastic in the short run. This is because, cotton is a primary product and it takes time to be grown. Extract 1 says that cotton crops take 100 days to reach maturity. Producers might find it difficult to raise supply quickly in the short run according to the price. However, the supply of cotton can be relatively price elastic in the long run where producers have more time to change supply and new firms will be encouraged to invest due to high prices. Therefore, longer the time period involved, greater the elasticity of supply would be. Further, the number of firms in the industry will influence the price elasticity of supply. If there are more firms, the supply also tends to be elastic. When there is spare capacity and variable inputs like ~~raw~~ labour available, firms will be able to increase supply quickly, however, this can be done rarely in an industry like cotton because it is a primary product. Short run means ~~at~~ at least one factor input is fixed in quantity whereas long run means all factor

inputs are variable. Therefore, price elasticity of supply tends to be inelastic in the short run and elastic in the long run. The world supply is also forecasted to increase to 117 million bales in 2011.

However, if ~~an~~ unsold stocks are available at the warehouses of firms, they might be able to increase supply in the short run by running down these stocks to meet demand. Further, some producers engage in different production activities where the factors of production can be switched from one department to another. If this could be done, the elasticity of supply would be elastic in the short run where production of one department can be increased when needed. Extract 1 says that farmers have already responded to high prices by devoting more land to cotton. This means due to high availability of land, supply can be raised easily even in the short run.



**ResultsPlus**

**Examiner Comments**

Here 10 out of 10 marks were awarded. A good starting point was to define price elasticity of supply (1 mark) and then discuss how it might change over time from being inelastic in the short term to elastic in the long term since cotton takes 100 days to reach maturity (1+1 marks). Supply may also become more elastic in the long term as high prices encourage new firms to enter the market (1 mark). Consideration was also given to the availability of spare capacity and the relevance of variable and fixed inputs (1+1 marks). The full 6 KAA marks are secured.

Evaluation came in the form of discussion on the availability of stocks of cotton and how it affected elasticity (2 marks). Furthermore some consideration of factor substitution was made with evaluative use of the data (2 marks).



**ResultsPlus**

**Examiner Tip**

Offer a diagrammatic explanation of how price elasticity of supply might change over time - by pivoting the supply curve. This is usually credited with a mark.

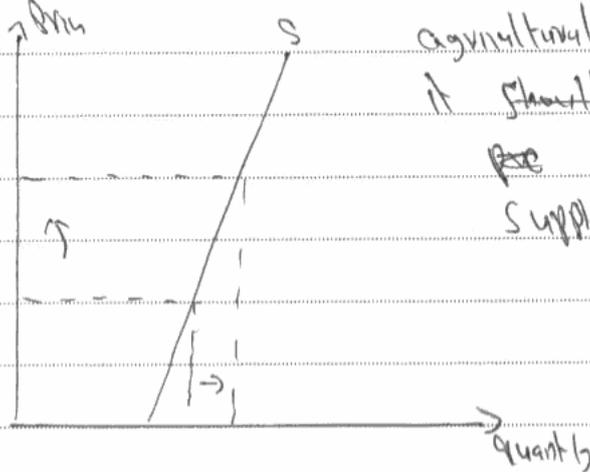
(c) With reference to Extract 1, discuss the factors that are likely to influence the price elasticity of supply of cotton.

(10)

PES is the degree of responsiveness for a supply of a good to a change in the price.

$$PES = \frac{\% \Delta QS}{\% \Delta P}$$

In the extract it is said that it takes 100 days for each cotton crop to reach maturity. Therefore there is a long period involved in the production process. This suggests that cotton supply can't be increased quickly to an increase in the price. Therefore the PES for cotton is likely to be price inelastic.



further cotton is an agricultural product and hence it should be likely to be price inelastic in supply.

However if cotton producers have spare capacity they will be able to increase the supply to an increase in the price which makes cotton an elastic PES in the short run. Further in the long run all the factors used in production

can be changed (flexible). Therefore the ~~ent~~ supply will be elastic in the long run. Further more ~~the~~ if the cotton producers are having stock piles they will be able to increase the supply in the short run which makes it more price elastic in supply in the short run. ~~The long run will~~ in the long run the cotton supply will be elastic. Since now the cotton farmers have increased the space available ~~at~~ for cotton crop.



### ResultsPlus Examiner Comments

Here 8 out of 10 marks were awarded. A definition of price elasticity of supply (1 mark) was supported with the idea that cotton is inelastic in the short term as it takes 100 days to reach maturity, combined with a relevant diagram (1+1 marks). Consideration of spare capacity and the relevance of cotton being an agricultural commodity was credited (1+1 marks). Reference to farmers increasing the space available for cotton growing in the long term, making supply elastic was a valid point (1 mark). The 6 KAA marks were just about secured.

Evaluation came in the form of discussion on the availability of cotton stockpiles to release on to the market and how it affects elasticity of supply (2 marks).



### ResultsPlus Examiner Tip

Offer evaluative use of the data. For example, cotton prices more than doubled in the space of a few months, so it is absurd to assume supply can increase more than proportionately to this - making it highly inelastic in the short term.

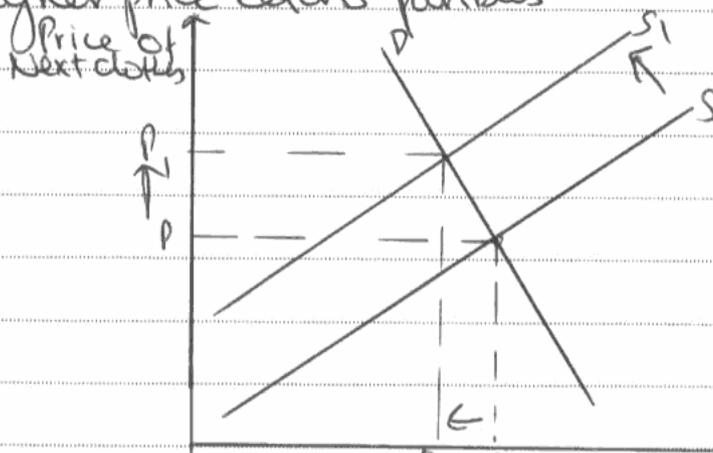
This could be opened up to discussion through the world forecast of cotton production increasing from 101 million to 117 million bales in the space of just one year.

## Question 10(d)

This was a question where the information provided in extract 2 offered lots of points candidates could explore and comment on. Overall, it differentiated effectively between the quality of responses.

\* (d) With reference to Extract 2, evaluate the likely effects of the increase in the price of cotton on retail clothing firms such as Next.   
 *elasticity* *switch to synthetics?* *depends on size of cotton on cost*

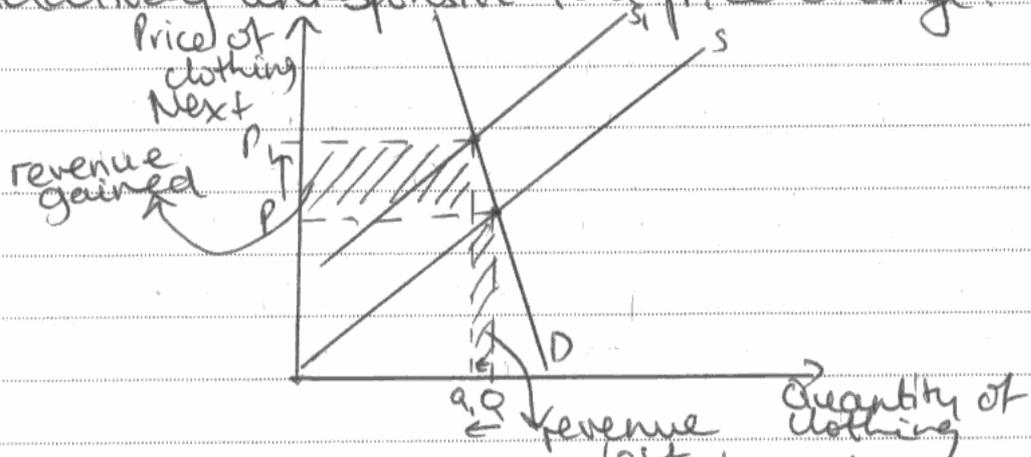
The increase in price of cotton is an increase in the cost of production of clothes for retailers like Next. The increase in costs may lead to a fall in supply of clothing from Next and hence a higher price ceteris paribus.



The higher price of  $P_1$  might mean a fall in demand for Next clothes if these increased costs are passed on to consumers who face price  $P_1$ . The fall in demand could lead to a loss of revenue for Next and this follows in with Katherine Wynne reducing her profit forecast for Next from ~~£566~~ £560m to £542m. There is could be loss of profits for Next and they might have to lay off workers in response.

However, the extent of the fall in revenue and profits might depend on the price elasticity of demand for Next clothing. If the demand for next

clothing is inelastic then firms who pass on the higher costs as higher prices to consumers might see a rise in profits as demand for clothing is relatively unresponsive to a price change.



The size of revenue gained is much larger than the size of revenue lost and this might mean an increase in profits & revenues for next. However, this is unlikely and demand is likely to be elastic seeing as there are many substitutes to Next such as Marks & Spencer and Debenhams. <sup>so large</sup> fall in profits.

The extent of rise in price and fall in revenues might be dependant on how long cotton prices are expected to stay high and also the proportion of total cost that cotton holds. If cotton prices are just in a bubble and expected to "burst" then firms may endure the higher cost now and not pass these on to consumers and revenue might not change at all. But if cotton prices stay high for a long time and cotton is a major

part of total cost of clothes making for Next, rise in price and fall in total revenue might be substantial. Also what about the price of synthetics? Perhaps firm Next should substitute cotton for synthetics if price of synthetics are lower leading to lower costs. Fall in revenue may be dependent on if there has been successful diversification. Revenue streams from house furnishing for Next may more than compensate for loss of revenue in clothing.



**ResultsPlus**

**Examiner Comments**

Here 14 out of 14 marks were awarded. This candidate started by suggesting the increase in price of cotton caused an increase in production costs for retail stores who may respond by raising the price of clothing to their customers - a suitable diagram was also offered (3 marks).

The impact on Next clothing stores was then explored, for example, how revenue, profits and employment was affected. Consideration was also given to Next's diversification strategy and use of substitute synthetic materials (5 marks). All 8 KAA marks were secured.

Evaluation came in the form of discussion on price elasticity of demand for Next's clothing and its impact on total revenue; also discussion of the volatility of cotton prices and how Next might respond (3+3 marks).



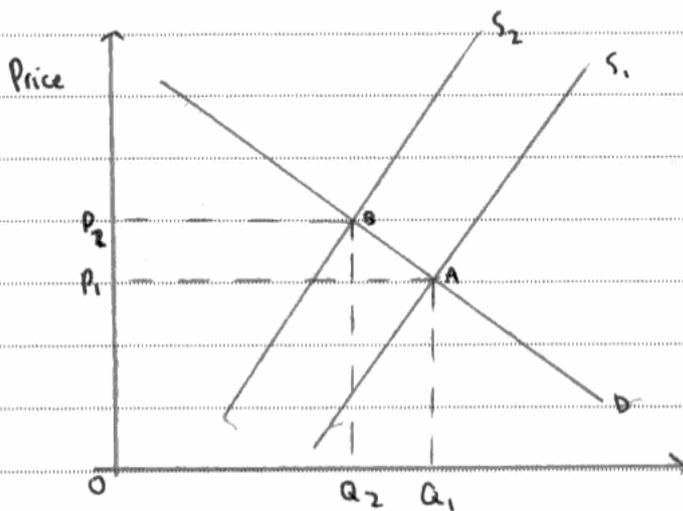
**ResultsPlus**

**Examiner Tip**

Use the information in the extract to identify and develop relevant points. Extract 2 offered scope for candidates to gain lots of KAA marks here.

\*d) With reference to Extract 2, evaluate the likely effects of the increase in the price of cotton on retail clothing firms such as Next.

(14)



The increase in the price of cotton will increase the costs of production for Next because cotton is a major part of the products they make. This shifts supply inwards and it raises the price.

Next can expect to see a fall in revenue (originally  $[P_1, A, Q_1, O]$  to  $[P_2, B, Q_2, O]$ ) and a fall in profits, backed up by Katherine Wynne. Next may have to decrease the amount of people they employ and try to cut costs across the company. Also there is a fall in producer surplus for the company.

The magnitude of the cotton price increase has to be considered. It has more than doubled in price, but how much of that will Next

A and other clothing companies will pass on to their consumers or will they try to absorb the costs to maintain profits.

Also Next doesn't just make clothes but home ware etc. so will the cotton increase really

make a massive dent in their profits if clothing isn't a large factor of the money they make anyway.

The elasticity of clothing has to be considered. If clothing is inelastic then an increase in prices will most likely cause an increase in the revenue and profits not a decrease.

Finally Next is able to switch over to using synthetic materials in their clothing so can completely avoid the increase in cotton prices all together.

Additionally if other firms can't weather the price increase and go bust, then there is less competition and less demand for cotton which would be very beneficial.



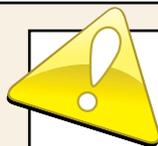
## ResultsPlus

### Examiner Comments

Here 12 out of 14 marks were awarded. The candidate referred to rising cotton prices leading to higher production costs for clothing firms and then suggested this might lead to higher prices for consumers - reinforced with a suitable diagram (3 marks).

Consideration of the impact on total revenue and profits and how firms might respond by cutting costs was also valid - along with the idea that some might switch to alternative synthetic materials or go bust (5 marks). All 8 KAA marks were achieved.

Evaluation came in the form of discussing the relative importance of cotton and clothing to Next as it has diversified into home furnishings and, consideration of the importance of price elasticity of demand for clothing (2+2 marks).



## ResultsPlus

### Examiner Tip

The large mark base questions are marked in two parts: firstly, for knowledge, application and analysis (8 marks); secondly, for evaluation (6 marks). Make sure you offer both types of comments.

## Question 10(e)

Private and external costs are very popular concepts in the specification and so candidates have plenty of past examination papers, mark schemes and examiner reports to go through to get an idea of how to answer questions on them. Overall, most candidates were able to draw a diagram and offer some application to GM farming, yet a significant minority incorrectly labelled the curves.

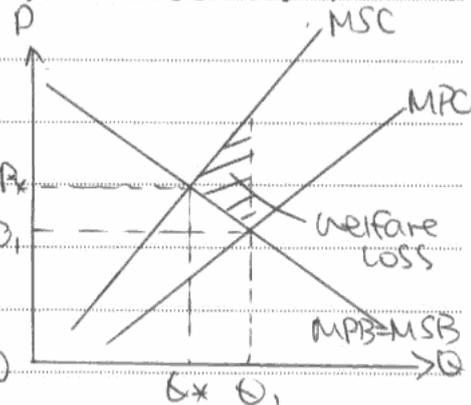
Some good evaluation techniques were used, the most popular being discussion of the time span required to fully assess the use of GM cotton seed and also its potential benefits in terms of increased crop yields, higher farm incomes and lower prices for consumers.

\* (e) With reference to the concepts of private costs and external costs, assess the possible economic effects of 'the use of genetically modified cotton seed' (Extract 3, line 1) Use an appropriate diagram in your answer.

(14)

Private costs are costs ~~on~~ internal to producers and consumers of a good during production and consumption. External costs are costs inflicted on ~~the~~ third-parties due to production or consumption of a good. Private costs of the

use of genetically modified cotton seed includes costs of the seeds, costs of machinery used in planting cotton trees, costs of wages of farmers, etc.



with the use of GM cotton ~~seeds~~, private costs are likely to rise as cotton producers must buy fresh supplies ~~from~~ of seeds from Monsanto but cannot reuse the seeds from the previous harvest, and ~~GM~~ GM seeds require more fertilisers and water to nourish ~~it~~ than traditional seeds. External costs of using GM seeds include likely development of resistance of worms to GM seeds and reduced biodiversity due resulting from use of GM seeds. These external costs are divergences of MPC from MSC, which causes  $MSB \neq MSC$  so that welfare loss exists under ~~overconsumption~~ overconsumption of GM seeds at  $Q_1$ , and thus induces market failure. The above analysis MPB and MSB in the market of GM

Seeds are equal. Nevertheless, use of GM ~~seed~~ seeds actually produce ~~extra~~ benefits such as prevention of crop diseases, increased yield and death of worms that eat up crops. The existence of ~~these~~ these benefits ~~is~~ also means ~~that~~ more ~~crop~~ crops can be produced each harvest so that ~~farm~~ farmers, especially those in developing countries such as China and India, can receive higher levels of income. As a result, the global income discrepancy can be reduced. This means the welfare loss is outweighed by some benefits derived from GM seeds.

Moreover, the negative effects on soil quality and biodiversity only become obvious after long periods of usage of GM ~~crop~~ seeds. As negative impacts are not instant, by the time producers realize the harm on their land and crops brought by GM seeds, the impact is already irreversible.

~~The~~ The increased use of GM seeds can raise <sup>supply</sup> ~~harvest~~ of cotton, hence price of cotton in a particular country will fall, increasing the competitiveness of this country globally. More exports of cotton will be demanded, so that balance of payment of the country may be improved. ~~It~~ This is an important growth factor for primary sector based economies and would relieve pressure on developed countries to provide financial aids to developing countries.

Nevertheless, this benefit would act in reverse when agriculture-based economies suffer from exhaustion of land due to use of GM seeds in a long-run, hence the use of GM seeds is not a sustainable practice.



## ResultsPlus

### Examiner Comments

Here 14 out of 14 marks were awarded. All 8 KAA marks were gained by defining private costs and external costs (1+1 marks), offering examples of both types in GM cotton farming (2+2 marks) and then producing a relevant diagram with explanation (4 marks).

Evaluation came in the form of a discussion on the benefits of GM farming, especially in the developing world and consideration of the uncertainty surrounding its long term effects (3+3 marks).



## ResultsPlus

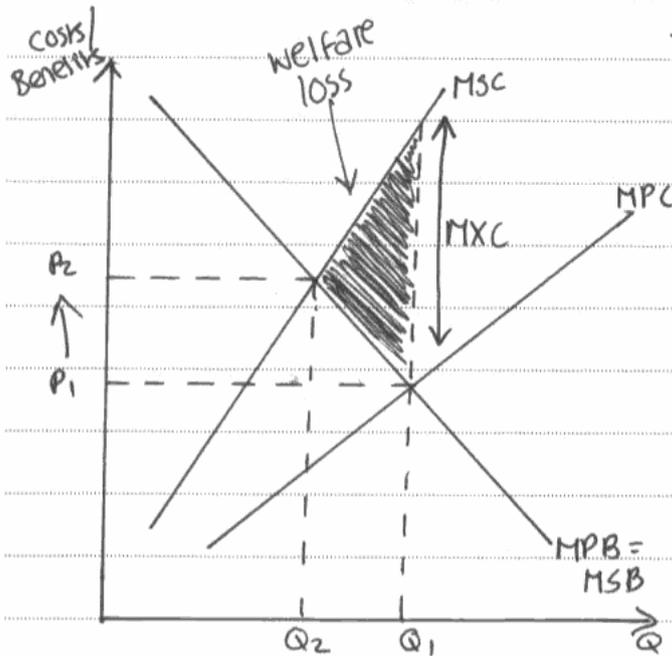
### Examiner Tip

Always correctly label the curves in the externality diagram and offer a brief explanation to secure the 4 marks available.

\* (e) With reference to the concepts of private costs and external costs, assess the possible economic effects of 'the use of genetically modified cotton seed' (Extract 3, line 1) Use an appropriate diagram in your answer.

(14)

Private cost is a cost to the producer eg. wages or consumer within the economic transaction. An external cost is to a 3rd party outside the transaction.



The private costs to the producer of GM crops is the cost of the actual crops, along with the fertiliser and extra levels of irrigation needed. Because they are more than normal crops this is an

extra cost experienced by the producer. Also the fact that bollworm are now resistant to the GM crops it means their yields will be lower and benefits not seen. They also have to buy fresh seeds of GM seeds annually unlike normal crops.

The external cost to the environment is the

reduced biodiversity created due to the GM crops.

This results in a welfare loss shown as the shaded area on the diagram.

However the increased costs to the farmer depends upon the level of previous expenditure. If increased revenue they will receive through the GM crops, which they wouldn't receive from normal crops.

The level of reduced biodiversity also depends upon the magnitude of the amount of farmers now using the GM crops. The reduced biodiversity may not be as large if a GM crop is only in a concentrated area.

Long term effects of using the GM crops may be negative on the environment in the area they are planted, meaning future farming may be put at risk if nutrients in the soil are depleted, for example. Producers of normal seeds a substitute of GM crops may experience a fall in their sales, this is another external cost, as more farmers turn to using GM crops.



## ResultsPlus

### Examiner Comments

Here 12 out of 14 marks were awarded. All 8 KAA marks were achieved by defining private costs and external costs (1+1 marks), offering examples of both types in GM cotton farming (2+2 marks) and then producing a relevant diagram with explanation (3 marks).

Evaluation came in the form of a discussion on the magnitude of GM farming, its long term effects and an understanding that revenue could increase for farmers (1+2+1 marks).



## ResultsPlus

### Examiner Tip

Try and offer more substance to the evaluation points - for example, develop properly the issues of magnitude and time period rather than just providing limited rehearsed answers.

## **Paper Summary**

Unit 1 offered an ideal opportunity for candidates to demonstrate their knowledge and understanding of competitive markets and market failure. It also provided the building blocks for candidates to develop and apply economic concepts and models across the whole syllabus.

The key to success in answering supported multiple choice questions was to learn definitions of economic concepts and apply demand and supply analysis to the issues at hand. This includes using the information provided and offering diagrammatic analysis.

The key to success in answering data response questions was to make use of the information provided and apply demand and supply analysis. It also required a thorough understanding of market failure and an ability to evaluate when instructed by the question. Answering the question set was crucial rather than simply regurgitating notes on what one might have wanted the question to be. The feedback offered in this report should help candidates achieve their full potential in GCE A Level Economics.

## **Grade Boundaries**

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

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