

# ResultsPlus

## Examiners' Report January 2010

### GCE Economics 6EC01

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## General Comments

This was the third 6EC01 exam paper from the new specification launched in September 2008. The structure of the paper involve candidates answering eight supported multiple choice questions, each being worth up to 4 marks (and so totalling 32 marks). Candidates are then required to select a data response question from a choice of two, totalling 48 marks.

Some candidates appeared to struggle to complete the paper in the time available. Consequently, future 6EC01 papers will contain less extract information. Furthermore, the June 2011 paper will have just five sub-questions (instead of six) within each data response question. This should make it easier to complete the exam paper in the one and a half hours available.

Overall, the paper appeared accessible to the vast majority of candidates and differentiated effectively between the qualities of responses. The mean score was 42.7 (compared to 40.9 in January 2009) and the standard deviation 13.2 (compared to 14.0 in January 2009).

### ***Section A: supported multiple choice questions***

Most candidates find this method of testing highly accessible. The mean score for the supported multiple choice questions was 18.59 out of a total of 32 marks (compared to 19.74 in the January 2009 series).

The quality of responses varied enormously and a relatively small proportion achieved high marks of 26 or more. The most challenging question appeared to be Q8 which recorded the lowest mean score of 1.55 out of 4 marks. Many responses selected incorrect option A, confusing the mobility of capital with the mobility of labour. The most successfully answered question was Q4, concerning the demand for newly built housing and building workers. It recorded the highest mean score of 2.67 out of 4 marks. This was particularly pleasing since the concept of 'derived demand' was a new addition to the 6EC01 specification.

The key to success involves defining the main concept in the question (usually awarded 1 mark) and applying appropriate economic theory and analysis (usually awarded up to 2 marks). Annotation of the diagrams provided in any question is a good strategy, for example, Q4 and Q6. In a similar vein, completion of the table in Q2 was a way of gaining marks. Q2 and Q3 also offered scope for candidates to introduce diagrammatic analysis as a means of demonstrating their knowledge and application of the issues at hand.

Some candidates attempted to gain marks by eliminating incorrect options. Up to three marks are available for successfully eliminating three incorrect options (providing that separate reasons are offered). However, mixed success was achieved here. It requires candidates to explicitly state the option key being rejected and then to offer an appropriate explanation. 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.

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

### Question 1: Market failure and mixed economies



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### Examiner Comments

This candidate scored 4 marks.

Correct option D (1 mark): The candidate defines a mixed economy (1 mark) and then identifies a reason for government intervention, namely, a free market economy may not ensure sufficient provision of public goods such as street lighting (1 mark). This is explained by reference to the free rider problem (1 mark). It is a sound, clinical answer that is well applied to the question set.

1 One reason for the existence of mixed economies is that

- A the profit motive is always undesirable
- B the free market economy always allocates resources efficiently
- C competition between firms ensures consumer welfare is maximised
- D the free market economy may lead to market failure.

Answer

D

Explanation

a mixed economy is one where resources are allocated both by the government and by the price mechanism, a purely free market economy would have its resources just by the price mechanism whereas a command economy it is ~~5~~ <sup>5</sup> ~~ast~~ <sup>ast</sup> the government who allocate resources.

<sup>Some</sup> in mixed economies the government provides public goods for example street lighting and ~~the~~ road use, in purely free market economies ~~these~~ these may not exist, and if they did it is likely there would be a large free rider problem whereby ~~everyone~~ ~~benefits~~ ~~from~~ ~~these~~ people get the benefit from street lighting without paying for it.



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### Examiner Tip

Option A is easy to reject by stating that the profit motive is often highly desirable since it gives an incentive to firms to produce goods and so help satisfy consumer demand.

**Question 1: Market failure and mixed economies****ResultsPlus**

Examiner Comments

This candidate scored 3 marks.

Correct option D (1 mark): The candidate defines a mixed economy (1 mark) and market failure (1 mark) but offers no application to a type of market failure here. This was common reason why candidates did not achieve full marks.

1 One reason for the existence of mixed economies is that

- A the profit motive is always undesirable
- B the free market economy always allocates resources efficiently
- C competition between firms ensures consumer welfare is maximised
- D the free market economy may lead to market failure.

Answer

D

Explanation

A mixed economy is one in which resources are allocated partly by the price mechanism and also by the government (intervene to correct market failures). A free market economy allocates resources by the price mechanism, which may lead to a market failure if not allocated efficiently. A mixed economy works to correct market failures by government intervention. All resources are scarce meaning people want unlimited wants but are faced by limited resources. A market failure is when there is a misallocation of resources which leads to a net welfare loss in society.

**Question 2: Opportunity cost from a production possibilities table**



**ResultsPlus**

Examiner Comments

This candidate scored 4 marks.

Correct option C (1 mark): The candidate defines opportunity cost (1 mark) and calculates it for raising agricultural output, showing the figures in the blank column of the table (2 marks). It is recommended that candidates make use of any prompts in the question instructions.

2

Agricultural goods output (million units)	Manufactured goods output (million units)	opportunity cost
0	90	
10	88	2
20	84	4
30	78	6
40	70	8
50	60	10
60	48	12
70	34	14
80	18	16
90	0	18

A country has two economic sectors, agriculture and manufacturing. Its production possibilities are shown in the table. (You may use the last column in answering the question.)

It can be deduced that

(1)

- A there is a constant opportunity cost as output changes
- B the opportunity cost of producing manufactured goods decreases, the greater the output of manufactured goods
- C the opportunity cost of producing agricultural goods increases, the greater the output of agricultural goods
- D it is possible to achieve 60 million units of agricultural goods and 60 million units of manufactured goods simultaneously, given the existing technology and full employment of resources in the economy.

Answer

C

Explanation

~~oppor~~

(3)

The opportunity cost is the next best alternative forgone. So by producing more agricultural goods the opportunity cost is the manufactured goods. The opportunity cost increases as more agricultural goods are produced, as shown in the table.

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Examiner Tip

However, it is also possible to achieve full marks without application to the table, for example, by defining a production possibility frontier (1 mark) and sketching a suitable diagram that shows opportunity cost increasing (1 mark).

Option D is easy to reject by stating that a maximum of 60 million units of agricultural goods and just 48 million units of manufactured goods are possible simultaneously (1 mark).




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Examiner Comments

This candidate scored 3 marks.

Correct option C (1 mark): The candidate calculates the opportunity cost of increasing agricultural output and so makes effective use of the data in the table (2 marks). The difficult part of the answer has been achieved. However, no definition of opportunity cost or production possibility frontier is offered. This demonstrates the importance of defining key economic concepts throughout.

2

Agricultural goods output (million units)	Manufactured goods output (million units)	Opportunity Cost (million)	
0	90	0	0
10	88	2	2
20	84	4	4
30	78	6	6
40	70	8	8
50	60	10	10
60	48	12	12
70	34	14	14
80	18	16	16
90	0	18	18

A country has two economic sectors, agriculture and manufacturing. Its production possibilities are shown in the table. (You may use the last column in answering the question.)

It can be deduced that

(1)

- A there is a constant opportunity cost as output changes
- B the opportunity cost of producing manufactured goods decreases, the greater the output of manufactured goods
- C the opportunity cost of producing agricultural goods increases, the greater the output of agricultural goods
- D it is possible to achieve 60 million units of agricultural goods and 60 million units of manufactured goods simultaneously, given the existing technology and full employment of resources in the economy.

Answer

 C

Explanation

(3)

As you can see in the table, each extra 10 units of agricultural goods produced increase the opp cost by 2 million manufactured goods.  
 e.g. at 10 = 2  
 20 = 4

∴ ~~option B~~ ~~option D~~ ~~option A~~ C

### Question 3: Price elasticity of demand for business and leisure flights



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### Examiner Comments

This candidate scored 4 marks.

Correct option B (1 mark): The candidate gives a formula for price elasticity of demand (1 mark) and then identifies business air travel to be inelastic in demand and leisure air travel to be elastic in demand (1 mark). The implications of this is alluded to in terms of raising price for business travellers and lowering price for leisure travellers to increase the firm's total revenue (1 mark).

3

Type of flight	Price elasticity of demand
Short haul business	-0.70
Short haul leisure	-1.52

Source: Department of Finance Canada 2008 ([www.fin.gc.ca/fin-eng.html](http://www.fin.gc.ca/fin-eng.html))

The table shows estimated price elasticities of demand for air travel for business and leisure customers of 'Air Canada', an airline company. It may be deduced from the data in the table that

(1)

- A demand is more price elastic for business travellers than leisure travellers
- B an increase in price for business travellers and a decrease in price for leisure travellers will increase total revenue
- C air travel is an inferior good
- D The cross elasticity of demand for business air travel with regard to a change in price of leisure air travel is negative.

Answer

**B**

Explanation

(3)

Price elasticity of Demand

$$= \frac{\text{Percentage change in demand}}{\text{Percentage change in price}}$$

Because demand for business travel is more inelastic than leisure, an increase in price will not change demand very much. Additionally, a decrease in price for leisure travel would attract more customers than those being lost in business travel because demand is more price elastic, therefore total revenue increases.

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Examiner Tip

A small minority of responses used excellent diagrammatic analysis to show how a change in price on suitable demand curves will increase total revenue in each market. This was automatically awarded full marks.

Option C is easy to reject since it refers to inferior goods. To answer this we need information on income elasticity of demand but this is not provided in the table.



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### Examiner Comments

This candidate scored 3 marks.

Correct option B (1 mark): The candidate gives a formula for price elasticity of demand (1 mark) and then identifies business air travel to be inelastic in demand and leisure air travel to be elastic in demand (1 mark). No further application is offered in terms of its relevance to price changes and total revenue.

3

Type of flight	Price elasticity of demand
Short haul business	-0.70
Short haul leisure	-1.52

Source: Department of Finance Canada 2008 ([www.fin.gc.ca/fin-eng.html](http://www.fin.gc.ca/fin-eng.html))

The table shows estimated price elasticities of demand for air travel for business and leisure customers of 'Air Canada', an airline company. It may be deduced from the data in the table that

(1)

- A demand is more price elastic for business travellers than leisure travellers
- B an increase in price for business travellers and a decrease in price for leisure travellers will increase total revenue
- C air travel is an inferior good
- D The cross elasticity of demand for business air travel with regard to a change in price of leisure air travel is negative.

Answer

**B**

Explanation

(3)

Price Elasticity of Demand =  $\frac{\text{Proportionate change in quantity}}{\text{Proportionate change in price}}$

Leisure travellers have a pos elastic demand for air travel\* whereas business travellers have a price elasticity of demand which is less than 1 so is inelastic.\* As it is greater than 1.

### Question 4: Newly built housing market and bricklayer labour market



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### Examiner Comments

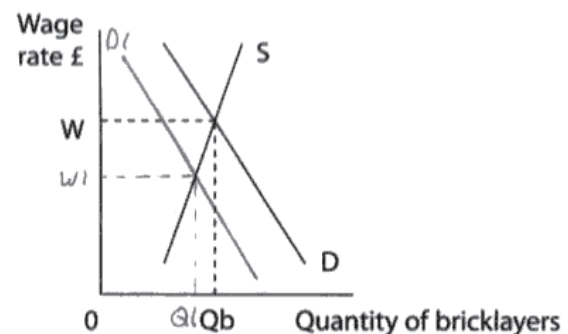
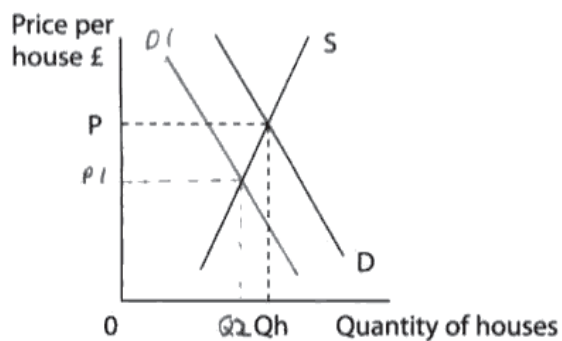
This candidate scored 4 marks.

Correct option B (1 mark): The candidate cogently explains that a decrease in real income will lead to a decrease in demand for housing since it is less affordable, so reducing price (1 mark) and then proceeds to explain how the demand for bricklayers will decrease due labour being a derived demand (1 mark). Both diagrams are annotated to show a decrease in demand for newly built housing and bricklayers (1 mark). Note that it is important to label the new equilibrium price and wage positions to ensure a mark.

#### 4 Market for newly-built housing

*derived*

#### Labour market for bricklayers



The diagrams show the market for newly-built housing and the labour market for bricklayers. New housing is a normal good. The initial price of housing is  $OP$  and the initial wage rate for bricklayers is  $OW$ . (You may annotate the diagrams in answering the question.)

A decrease in real incomes is likely to cause

(1)

- A an increase in the price of new housing and an increase in the wage rate for bricklayers
- B** a decrease in the price of new housing and a decrease in the wage rate for bricklayers
- C an increase in the price of new housing and a decrease in the wage rate for bricklayers
- D a decrease in the price of new housing and an increase in the wage rate for bricklayers.

Answer

B

Explanation

(3)

Real income is what a person receives after all taxes on labor, your wages and so on. If real income decreased, less people would be able to afford to get a mortgage, which would cause a decrease, or a shift in demand to the left ( $D_1$ ).  $P_1 \rightarrow Q_2$  shows how the equilibrium has decreased, and therefore house prices.

Labor and housing markets are + derived demand, so one market is affected greatly by another. Therefore demand for labor for housebuilding would decrease to  $D_1$ , which decreases the wage rate for bricklayers.

(Total for Question 4 = 4 marks)



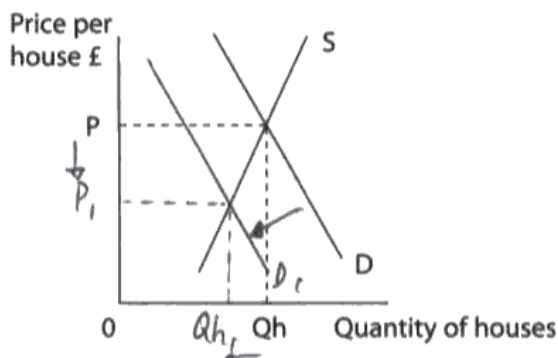
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Examiner Comments

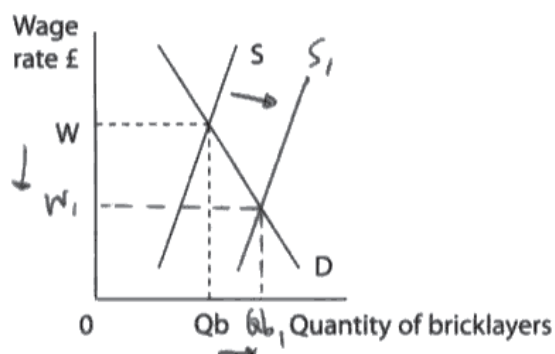
This candidate scored 3 marks.

Correct option B (1 mark): The candidate explains that the demand for labour is derived from the demand for the final product it makes (1 mark) and then applies to the question, namely, that a decrease in real income will force a decrease in demand for housing and so bring about a drop in price (1 mark). After this, confusion sets in and the discussion leads to an incorrect shift of the supply curve of bricklayers to the right. Correct annotation of both diagrams is required to achieve a mark.

4 Market for newly-built housing



Labour market for bricklayers



The diagrams show the market for newly-built housing and the labour market for bricklayers. New housing is a normal good. The initial price of housing is  $OP$  and the initial wage rate for bricklayers is  $OW$ . (You may annotate the diagrams in answering the question.)

A decrease in real incomes is likely to cause

(1)

A decrease in real incomes is likely to cause

(1)

- A an increase in the price of new housing and an increase in the wage rate for bricklayers
- B a decrease in the price of new housing and a decrease in the wage rate for bricklayers
- C an increase in the price of new housing and a decrease in the wage rate for bricklayers
- D a decrease in the price of new housing and an increase in the wage rate for bricklayers.

Answer

B

Explanation

(3)

Labour is a derived demand. This means that labour is demanded for the demand of a result of a product. With the decrease in real income, consumer confidence decreases too forcing a decrease in demand for housing ( $D$  to  $D_1$ ), resulting in a drop in price of housing ( $P$  to  $P_1$ ). Following this, the labour market will end up with an ~~the~~ excess supply of bricklayers unemployed due to Keynesian unemployment; wage rate drops from  $w$  to  $w_1$ .



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## Examiner Comments

This candidate scored 4 marks.

Correct option D (1 mark): The candidate defines market failure (1 mark) and provides a suitable diagram of external benefits, depicting how consumption should increase to reach the social optimum position. Some application is offered to the consumption of vitamins though it is not fully explained (for example, in terms of reducing healthcare costs or increasing productivity for employers) (1+1 marks).

5 Which of the following forms of government intervention could correct market failure? (1)

- A Rationing of public goods
- B Taxation of goods which yield high external benefits
- C Banning the consumption of luxury goods
- D Granting of subsidies to goods which yield high external benefits.

Answer

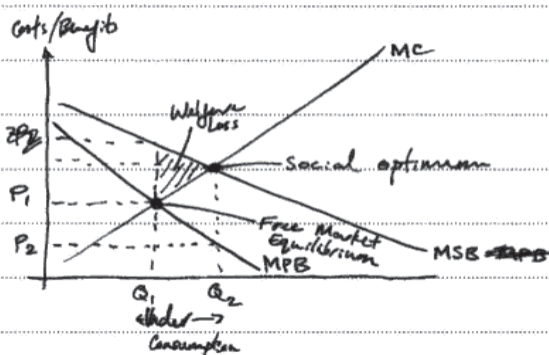
D

Explanation

(3)

Market failure is a situation that occurs when the free-market mechanism does not lead to optimum allocation of resources.

An example could be externalities, a positive externality, i.e. the production of merit good (e.g. vitamins)



The free-market equilibrium would mean that output would be at  $Q_1$ .

At this point, there is under-consumption & welfare loss. So if the

government grants subsidies to the producers of this good then this can help reduce the overall costs of production so costs per unit will be lower which means the goods will be supplied at a lower price which may help correct the welfare loss, i.e. the market failure.




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Examiner Comments

This candidate scored 2 marks.

Correct option D (1 mark): The candidate defines a subsidy (1 mark) but does not offer any specific examples of how it might be applied to goods which yield high external benefits. The answer could have been developed with a subsidy diagram showing how the increase in supply would reduce price and raise output. This could be applied to a good or service which yields external benefits, for example, healthcare, education or public transport.

5 Which of the following forms of government intervention could correct market failure?

(1)

- A Rationing of public goods
- B Taxation of goods which yield high external benefits
- C Banning the consumption of luxury goods
- D Granting of subsidies to goods which yield high external benefits.

Answer

 D

Explanation

(3)

A subsidy is a grant given, by the government, to a company to encourage them to produce more. By granting subsidies for goods <sup>which</sup> yield high external benefits, the company will produce more at a cheaper price, ~~of creating~~ <sup>and</sup> more revenue, which works as a stimulant in the circular flow of an economy.


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Examiner Tip

Option A is easy to reject since public goods, by their very nature, cannot be rationed once provided, for example, national defence or a flood defence scheme.

## Question 5: Government intervention to correct market failure

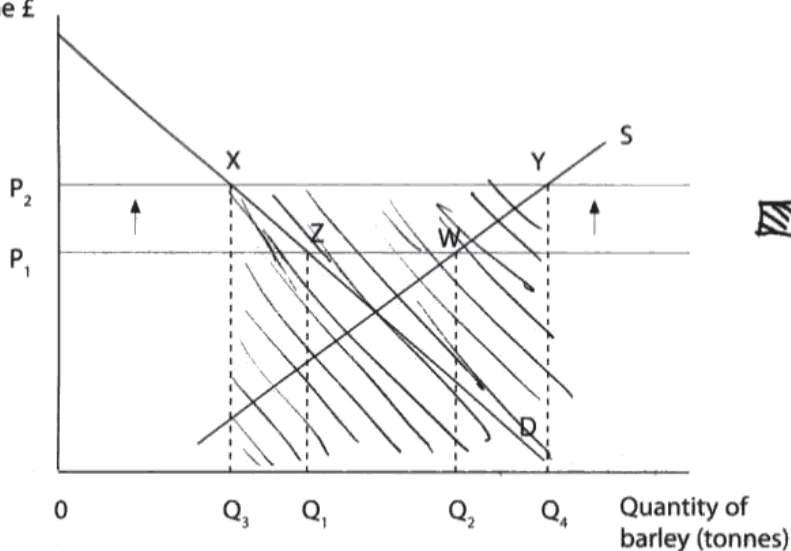

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Examiner Comments

This candidate scored 4 marks.

Correct option C (1 mark): The candidate explains the purpose of a minimum price scheme in terms of stabilising price fluctuations and producer incomes (1 mark). A further 2 marks are achieved by identifying the initial area of government spending on the scheme (ZWQ1Q2) and the new area (XYQ3Q4) after the minimum price is increased. Annotation of the diagram is also offered though full marks are already achieved.

6 Price per tonne £



Total government spending

The diagram shows the European Union (EU) barley market, where a minimum price scheme operates. The EU guarantees to purchase any surplus output at the minimum price. Initially the minimum price is at  $OP_1$  and the EU purchases  $Q_1Q_2$  of barley. If the minimum price is increased to  $OP_2$  which of the following is correct?

(1)

- A Producer surplus decreases
- B Excess demand for barley increases
- C EU spending on the minimum price scheme for barley increases
- D Output of barley decreases.

Answer

**C**

Explanation

(3)

A minimum price scheme is government measure to stabilise fluctuating prices and producer incomes for commodities. The EU spending on the minimum price scheme will increase because they will have to buy more barley at a higher price ( $P_2$ ). Therefore, as shown on the graph total government spending will increase from  $ZWQ_1Q_2$  to  $XYQ_3Q_4$  (a bigger area).

(Total for Question 6 = 4 marks)



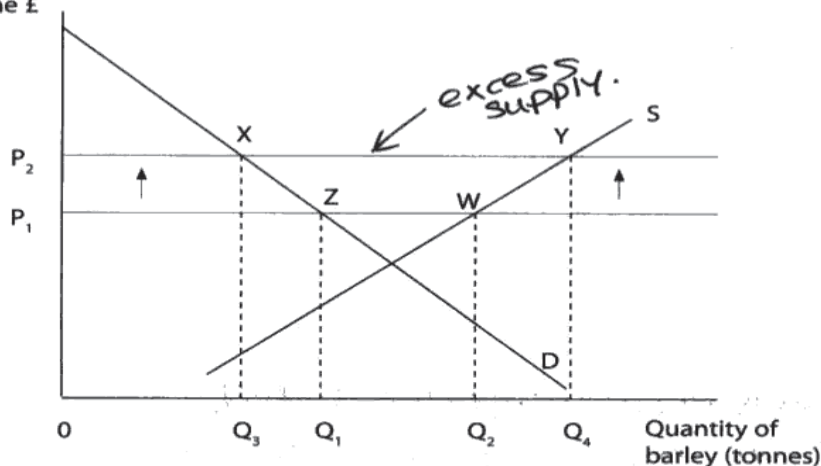
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### Examiner Comments

This candidate scored 3 marks.

Correct option C (1 mark): The candidate identifies an increase in excess supply of  $Q_3Q_4$  which the government has to buy up (1 mark). However, the initial and new areas of government spending on the minimum price scheme are not identified - this was typical of many responses and it highlights the importance of making greater use of any diagrams offered in the question. The candidate aptly rejects option D by stating that the output of barley will increase from  $Q_2$  to  $Q_4$  (1 mark).

6 Price per tonne £



The diagram shows the European Union (EU) barley market, where a minimum price scheme operates. The EU guarantees to purchase any surplus output at the minimum price. Initially the minimum price is at  $OP_1$ , and the EU purchases  $Q_1Q_2$  of barley. If the minimum price is increased to  $OP_2$ , which of the following is correct?

(1)

- A Producer surplus decreases
- B Excess demand for barley increases
- C EU spending on the minimum price scheme for barley increases
- D Output of barley decreases.

Answer

**C**

Explanation

(3)

The EU spending on the scheme would increase because with the minimum price going up from  $OP_1$  to  $OP_2$  then the government will have to buy up more excess supply which is  $Q_3$  to  $Q_4$ . It's not D because the output of barley would increase from  $Q_2$  to  $Q_4$ .

## Question 6: EU minimum price for barley



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Examiner Comments

This candidate scores 4 marks.

Correct option A (1 mark): The candidate defines (and shows the formula) for cross elasticity of demand (1 mark) and then directly applies to tea and milk (1 mark). Reference is also made to tea and milk being complementary goods with a negative cross elasticity of demand (1 mark). Full marks are already achieved but another mark would usually be awarded for successful rejection of option C since tea and coffee are substitutes with a positive cross elasticity of demand.

7 The cross elasticity of demand for tea is likely to be

(1)

- A negative following a change in the price of milk  $\begin{matrix} - & + \\ + & - \end{matrix}$
- B positive following an increase in income since tea is an inferior good
- C negative following a change in the price of coffee  $\begin{matrix} + & - \\ + & - \end{matrix}$
- D positive following a decrease in income since tea is a normal good.

Answer



Explanation

(3)

Cross price elasticity of demand is the responsiveness of demand of good A to a change in price of good B. The formula is  $xPED = \frac{\% \Delta D(\text{good A})}{\% \Delta P(\text{good B})}$

the answer is A because if the price of milk increased, the demand for tea would decrease giving a negative value, because they are complementary goods. Answer C can be eliminated as tea and coffee are competitive goods so if the price of coffee increased, the demand for tea would increase given a positive value.

(Total for Question 7 = 4 marks)


**ResultsPlus**

Examiner Comments

This candidate scored 3 marks.

Correct option C (1 mark): The correct formula for cross elasticity of demand is provided (1 mark) and reference made to tea and milk being complementary goods since they are in joint demand (1 mark).

7 The cross elasticity of demand for tea is likely to be (1)

- A negative following a change in the price of milk
- B positive following an increase in income since tea is an inferior good
- C negative following a change in the price of coffee
- D positive following a decrease in income since tea is a normal good.

Answer

 A

Explanation

(3)

Cross elasticity of demand =  

$$\frac{\% \text{ change in quantity demanded of good X}}{\% \text{ change in price of good Y}}$$

XED is positive for substitutes & negative for complements.

Tea and milk are complements because they are consumed together & are in joint demand. Therefore XED will be negative for tea in relation to a price change of milk.


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Examiner Tip

There is no explicit application made to how a change in price of milk might cause the demand for tea to move in the opposite direction. Also, the candidate needs to apply the reference made to substitutes directly to tea and coffee.

## Q7: Cross elasticity of demand for tea


**ResultsPlus**

Examiner Comments

This candidate scores 4 marks.

Correct option D (1 mark): The candidate refers to improving information on job vacancies in different areas as a means of combating asymmetric information (1 mark) and then defines the geographical mobility of labour (in terms of the ease at which labour can move across regions to take work) (1 mark). Finally, option B is successfully rejected since an increase in the Job Seeker's Allowance might encourage workers to go on benefits rather than find a job (1 mark).

- 8** Which of the following is likely to be the most effective measure for increasing the geographical mobility of labour? (1)
- A** A subsidy to firms that relocate to areas of high unemployment
  - B** An increase in the Job Seeker's Allowance for the unemployed
  - C** An increase in the stamp duty tax on buying a house
  - D** Increased government provision of information on job vacancies in different areas of the UK.

Answer



Explanation

(3)

D is correct as this should help to combat asymmetric information about job vacancies in different areas by making it more symmetric. Such better information will encourage workers <sup>if needed</sup> to ~~relocate~~ as they have better information so they can get jobs in different areas if they need to. This increasing mobility: geographical mobility of labour is the ease at which labour can move across regions/countries.

B is incorrect as this will encourage workers on low pay to stay on benefits, not find a job.

(Total for Question 8 = 4 marks)


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Examiner Tip

The candidate achieves full marks without suggesting how information on job vacancies in different areas could be improved, for example, by improving the training of Job Centre staff or the location of Job Centres. Very few responses offered a measure to improve information on job vacancies.

## Question 8: Geographical mobility of labour



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Examiner Comments

This candidate scored 3 marks

Correct option D (1 mark): The candidate defines geographical mobility of labour (1 mark) and then outlines how an increase in knowledge will enable workers to see where the jobs are and possibly relocate to fill them (1 mark). This was a typical answer for most candidates who selected the correct option. To achieve the final mark requires some application to a type of improvement in job vacancy information or a rejection of an incorrect option.

8 Which of the following is likely to be the most effective measure for increasing the geographical mobility of labour?

(1)

- A A subsidy to firms that relocate to areas of high unemployment
- B An increase in the Job Seeker's Allowance for the unemployed
- C An increase in the stamp duty tax on buying a house
- D Increased government provision of information on job vacancies in different areas of the UK.

Answer



Explanation

(3)

Geographical mobility of labour refers to how able a country's work force is at filling vacancies etc in other parts of a country.

An increased knowledge of where these jobs are will enable workers to be able to see where they are and possibly relocate in order to fill a vacancy.



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Examiner Tip

Unfortunately, many candidates selected incorrect option A, confusing a measure to increase capital mobility with labour mobility.



## *Question 8: Geographical mobility of labour*

### **Section B: Data response questions**

The data response questions have a substantial weighting for evaluation marks (16 out of 48 marks). Consequently, it is vital that candidates make evaluative comments when required by the question as these may comprise up to half the marks available for the higher mark tariff questions.

Furthermore, 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. However, Question 9 (Oil prices) was a more popular choice with 73% of candidates selecting this, compared to 27% choosing Q10 (Road congestion and road pricing). The mean score for Q9 was 25.43 and for Q10 24.25 out of a total of 48 marks. These scores suggest the questions are comparable in terms of the demands placed upon candidates and in the marking process.

## Question 9 (ai)


**ResultsPlus**

Examiner Comments

This candidate scored 6 out of 6 marks.

The candidate explains how economic growth in China has led to an increase in demand for oil and thus its price. This reason is well developed (2 marks); mention is also made to speculative buying of oil (1 mark). A diagram depicting an increase in demand and the original and new higher price equilibriums secures the 3 marks available.

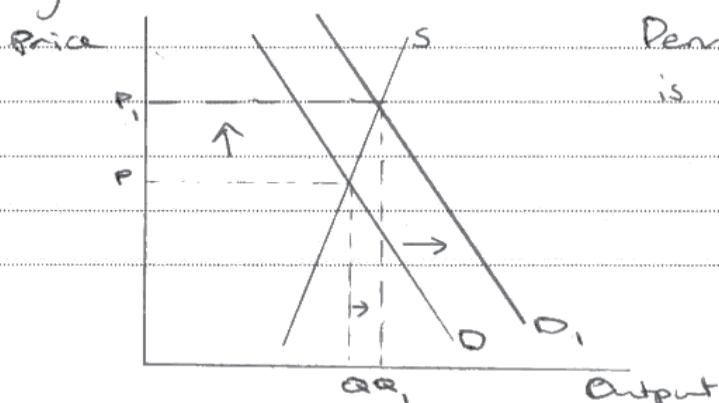
- (a) (i) With reference to Figure 1 and Extract 1, explain why oil prices increased rapidly between the start of 2004 and July 2008. Use a demand and supply diagram in your answer.

(6)

A rapid economic growth in China leads to increased demand for oil as more people can afford to purchase things that are run on oil consumption, & the increased manufacturing industry also increases the use of oil. Demand is also increased by speculative buyers who expect the price to rise further so purchase now to make more of a profit.

Supply could not increase due to an under-investment in the oil-refineries, meaning the capital was insufficient to support the increase in demand.

This pushes up the price, as seen in the diagram.



Demand & supply is also inelastic.

## Question 9 (ai)


**ResultsPlus**

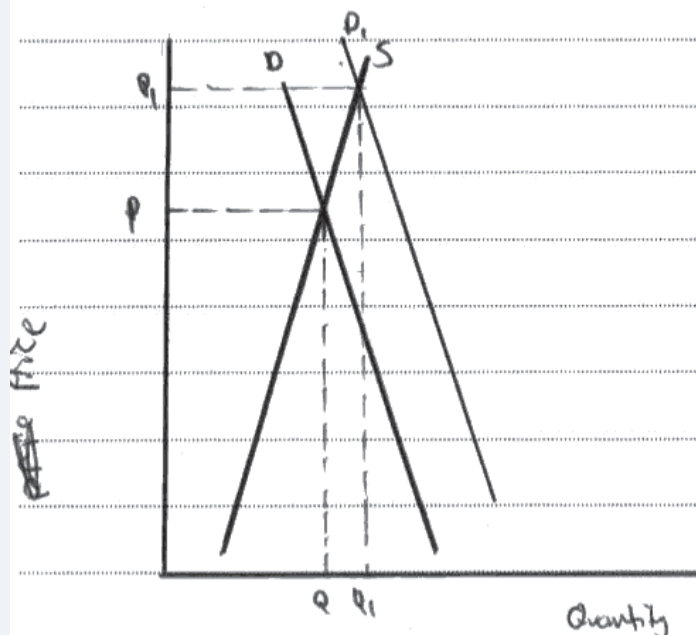
Examiner Comments

This candidate scored 4 out of 6 marks.

The candidate refers to China's economic growth leading to an increase in demand and price of oil (1 mark). A further 3 marks is awarded for the diagram depicting an increase in demand and the original and new price equilibriums. Overall, the answer is too brief and no mention is made of speculative buying or explicit reference to the actual oil price increase which would have increased the score.

- (a) (i) With reference to Figure 1 and Extract 1, explain why oil prices increased rapidly between the start of 2004 and July 2008. Use a demand and supply diagram in your answer.

(6)



China's economic growth was fuelled by ~~oil~~ <sup>to produce the goods</sup> oil. The increase in demand for oil over the years shifted the demand line from D to D<sub>1</sub>. This created ~~an~~ <sup>a</sup> new equilibrium price at P<sub>1</sub> which is higher than P.

## Question 9 (a ii)


**ResultsPlus**

Examiner Comments

This candidate scores 6 out of 6 marks.

The candidate starts with a definition of price elasticity of supply (1 mark) and then explains why oil is likely to be inelastic in the short run, referring to the lengthy extraction process (1 mark). The answer moves on to explain how supply might be elastic in the long run due to successful oil exploration and development of new fields (2 marks). Finally, a sound evaluation point is made through discussing the availability of oil stocks and how it might affect elasticity in the short run (2 marks). Relatively few responses offered an evaluative comment.

- (a) (ii) With reference to Extract 1, discuss how the price elasticity of supply of oil might differ in the short run and long run.

(6)

Price elasticity of supply measures the responsiveness of a supply to the change in price of a good. In the short run, the price elasticity of supply of oil is likely to be relatively inelastic because the extraction process of oil and the resources of known oil fields takes a long time. Supply takes a long time to respond to a change in demand for oil which is why the growth of China has affected the price of oil so significantly.

In the long run, the supply of oil is likely to become more elastic because producers have responded to a change in demand by increasing oil exploration and investment. North Sea oil firms have started to develop oil fields that previously were too dangerous to explore but the extraction of this oil will take many years. However, some firms may be able to respond to a change in demand in the short term if they have stocks of oil that they can supply into the market and therefore in this case, the supply of oil would be relatively elastic in the short term.

**ResultsPlus**

Examiner Comments

This candidate scores 4 out of 6 marks.

This answer was typical of candidates who understood elasticity of supply and could apply the concept to the extract information but offer no evaluation. Consequently, the two evaluation marks were missed.

- (a) (ii) With reference to Extract 1, discuss how the price elasticity of supply of oil might differ in the short run and long run.

(6)

Price elasticity of supply is the responsiveness of supply to a change in price for a good. Extract 1 tells us that the suppliers could not respond to the increase in demand and price because of under-investment. So in the short run supply is probably inelastic. This could also be because of the nature of production, it has to be found and extracted this could take time.

However in the long run with more investment and time to explore places like the North sea and Brazil ~~data~~ supply will become more elastic.

## Question 9 (bi)


**ResultsPlus**

Examiner Comments

This candidate scored 8 out of 8 marks.

The answer is full of ideas and explains how rising oil prices lead to higher production costs and lower profits (or even losses and bankruptcy). Mention is also made of reducing the quantity of flights in order to lower production costs. All 4 knowledge, application and analysis marks are achieved here.

(b) With reference to Extract 2

(i) examine the likely economic effects on airlines of rising oil prices.

(8)

The airline industry has a relatively ~~low~~ highly competitive and can't afford to put the costs of production onto the consumers because the choice of airline for consumers is high and they can switch <sup>consumption</sup> ~~prices~~. Airlines have derived demand for oil because they have inelastic demand for fuel. The effect of an increase in oil prices is going to be significant for airlines like BA because they have such high fuel costs. One economic effect would be a decrease in flight routes and therefore a decrease in profit and revenue. The increased fuel costs will mean higher costs of ~~media~~ production for a firm so they may have to reduce the <sup>supply</sup> ~~price~~ of flights in order to not make a loss. This will ~~not~~ reduce profits but will enable a firm to keep producing. Another economic effect would be to go bankrupt because it

Economic effect would be to go bankrupt because it is hard to cut costs and with falling passenger demand due to the recession, many airlines can't stay above the shut down point. However, the impact is not completely negative because, as the Chief of BA says, it may reduce the capacity in the market which is good for airlines as it opens up more routes and gives existing firms more market share. Some firms may not be affected by the increased cost because, like Alitalia, they are being artificially kept in business by the government.



## ResultsPlus

### Examiner Tip

The answer includes several evaluative ideas, for example, the oil price increase is significant for airlines since they have such high fuel costs; it is difficult to pass the oil costs on to the consumer since the choice of airlines is high; some airlines may not be affected since they receive state subsidies like Alitalia. All 4 evaluation marks were achieved here.

## Question 9 (bi)



ResultsPlus

Examiner Comments

This candidate scored 4 out of 8 marks.

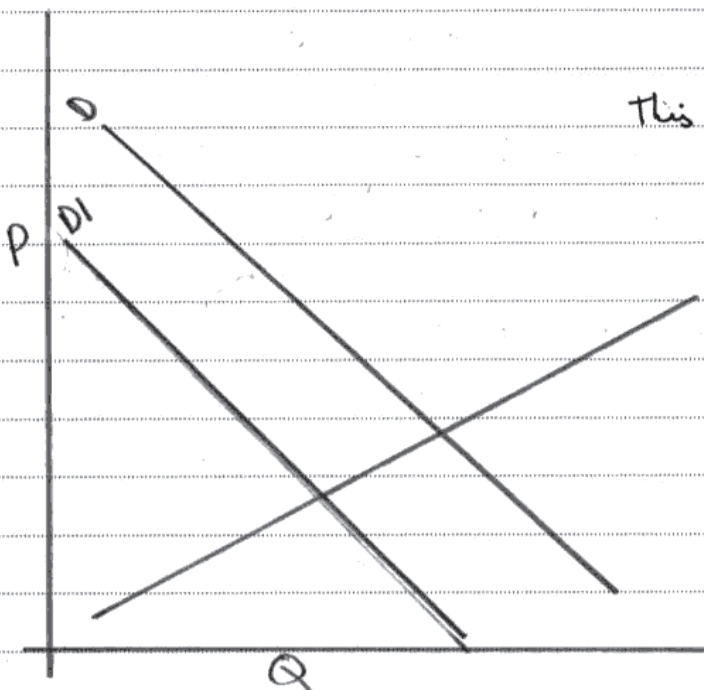
The candidate refers to the possibility of airline bankruptcy and the need to raise the ticket price of flights (2 marks). An evaluative comment is made by discussing the difficulty of raising ticket prices at a time of falling demand (presumably due to the recession). A benefit of doubt is awarded here to the overall quality of discussion (2 marks).

(b) With reference to Extract 2

(i) examine the likely economic effects on airlines of rising oil prices.

(8)

The effect on airlines like ~~figure~~ <sup>extract</sup> 2 states is bankruptcy as a worst case. Airlines will have to buy the oil even at high prices to keep their business going as to make profits they will have to increase their tickets prices to get the money back. Because the number of passengers demanding airline services is already falling, this will lead to serious years over staying in business because you can't raise prices when demand is already falling.



This diagram shows the way demand falls with the increase of tickets due to rising oil prices which can only eventually lead to bankruptcy



## Question 9 (bii)


**ResultsPlus**

Examiner Comments

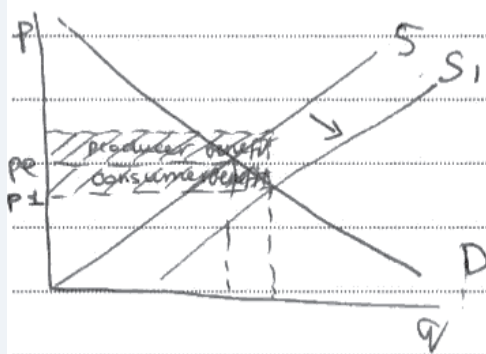
This candidate scored 10 out of 10 marks.

The candidate explains how the subsidy may keep the company in the market and lower its production costs. This is supported by good diagrammatic analysis. 6 marks awarded for knowledge, application and analysis.

\*(ii) assess the likely economic effects of subsidies being given to Alitalia by the Italian government.

(10)

The effect of subsidies is aimed to increase the production of service (though in this case by doing so, it aims most importantly to keep the company in the market and preventing it's ~~complete~~ failure)



The subsidising lowers the costs of the production for the company giving it the opportunity to pass the benefits on to the consumers via price fall of the service. This price fall <sup>tends to</sup> attract more customers and increases the demand for service since flying is not an inferior good, but a normal one.

However, if the service is of a poor quality, has substitutes (eg BA for some flights) or has a poor customer loyalty level, ~~this~~ <sup>subsidy</sup> might not achieve the desired result, <sup>as the demand will be likely to remain inelastic</sup>. Also, ~~the~~ <sup>in the long run</sup> during hard times eg economic recession, it might be helpful ~~the~~ in the long run subsidising does harm to the firm because it starts relying on the government too much. The government might want to carry on, however, because it might encourage the tourism in the country and trade ~~to~~ <sup>support</sup>. If the subsidy will be diverting too much money from the government budget, however, the company might <sup>have to</sup> face the difficult situation on its own, though and knowing it's poor state at the moment, it is likely to go bust - unless overtaken by another, bigger company.



## ResultsPlus

Examiner Tip

Evaluation is effectively made by exploring the quality of service offered by Alitalia and how the subsidy might not have its desired result, especially if demand is price inelastic for its services. The answer continues in an evaluative vein by discussing how the company might become reliant on the subsidy and the implications of it being withdrawn if it diverts too much money from government finances. Reference is also made to the encouragement of trade and tourism for Italy. The full 4 evaluation marks were awarded.

## Question 9 (bii)


**ResultsPlus**

Examiner Comments

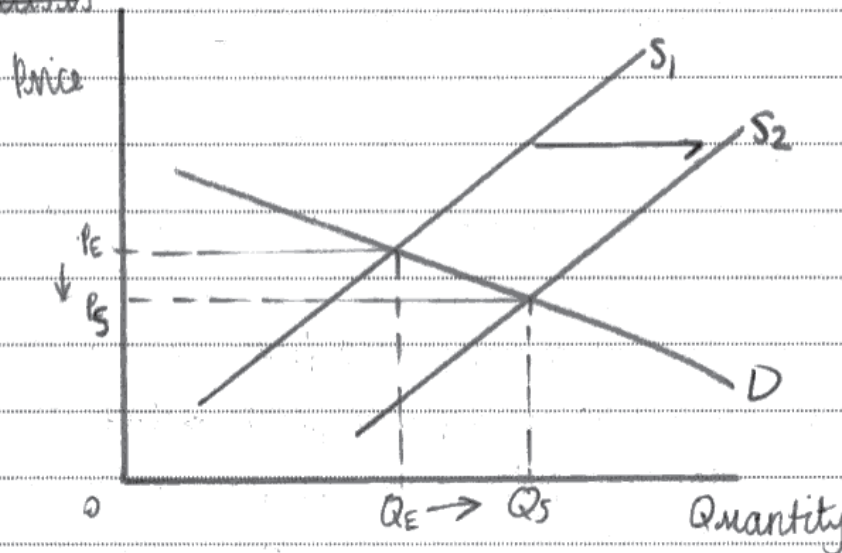
This candidate scored 7 out of 10 marks.

The candidate defines a subsidy and provides a diagram and explanation of its effects (3 marks). The knowledge, application and analysis is a little brief. However, two sound evaluation points are given, one discussing the opportunity cost implications for the government and the other discussing the efficiency of Alitalia in the long term and its implications for consumers (2+2 evaluation marks).

\*(ii) assess the likely economic effects of subsidies being given to Alitalia by the Italian government.

(10)

A subsidy is a government payment to producers for the production of goods and ~~it~~ is intended to lower the market price. The likely economic effects is



As shown on my diagram, the quantity demanded increases from  $Q_E$  to  $Q_S$ , and price falls from  $P_E$  to  $P_S$ . This will benefit the economy as consumers will buy more air tickets, and a consumption will increase causing a rise in incomes as wages rise.

However, the opportunity cost of ~~budget~~ subsidizing Alitalia will mean a smaller budget share for hospitals and education, leading to a fall in human capital and living standards.

It will also undermine private firms who have organically grown, and may result in a growing market share of Alitalia, until they reach a monopoly position. This will result in X-inefficiency and Alitalia becoming complacent, with consumers having to pay for the rising average costs.

To conclude, the continual subsidies for Alitalia will benefit Italy in the short run as consumption increases and so too does infrastructural investment. Yet in the long run, average costs will rise as Alitalia becomes complacent and consumers will instead be worse off with the falling supply.

## Question 9 (c)


**ResultsPlus**

Examiner Comments

This candidate scored 6 out of 6 marks.

An extensive definition of external costs is given (costs not taken into account by the price mechanism and external to an exchange, affecting the third party) (2 marks). Two clear examples of external cost from the consumption of oil is developed, one focusing on the use of cars and the other on the use of oil in machinery (2+2 marks).

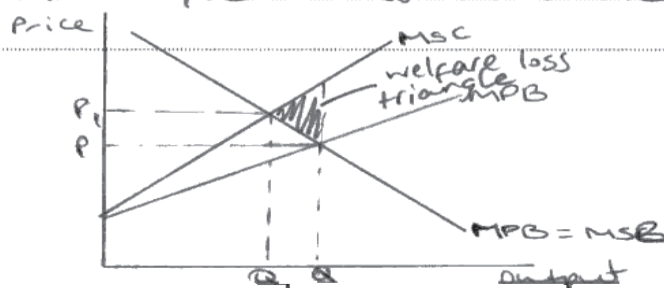
(c) Giving examples from the consumption of oil, explain what is meant by the term *external costs*.

(6)

External costs are costs which are not taken into account by the price mechanism; they are external to an economic exchange & affect a 3<sup>rd</sup> party. They can lead to market failure, as there is a misallocation of resources.

The consumption of oil can lead to external costs. The use of oil as petrol in cars can contribute to pollution through the exhausts. This affects both the air that we breathe & contributes to greenhouse gases and global warming.

The use of oil to operate machinery & other capital can lead to other types of pollution, such as waste polluting a river, killing fish & having an adverse effect on fishing farmers (the 3<sup>rd</sup> party). External costs lead to market failure and a net welfare loss in society.



External costs = private costs + social costs.

**ResultsPlus**

Examiner Comments

This candidate scored 3 out of 6 marks.

One mark is gained from defining external costs (costs to a third party) but more development is required to secure the second mark (up to 2 marks are usually available for a definition). 2 marks are awarded for explaining how burning oil causes atmospheric pollution and destroys the ozone layer. Another example is required to gain further marks here, for example, respiratory illnesses or river pollution.

(c) Giving examples from the consumption of oil, explain what is meant by the term *external costs*.

(6)

External costs means the costs produced by a first party and a 2nd party which falls on a 3rd party who has to pay for it.

For example the use of oil being burnt up to make  $\text{CO}_2$ , the process of combustion causes pollution which goes into the atmosphere damaging the ozone layer and creating global warming. The government is aware of this and now charges people extra ~~pay~~ for the oil when they try and buy it. This is also seen when driving into London because you are charged congestion of £12 because they know you are causing external cost by driving into London and polluting.

## Question 9 (d)


**ResultsPlus**

Examiner Comments

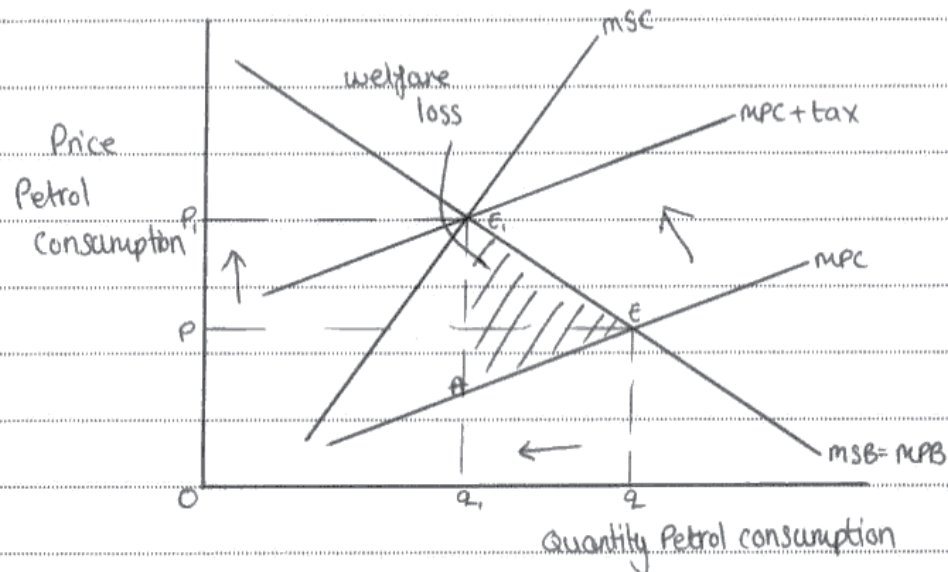
This candidate scored 9 out of 12 marks.

The candidate explains the meaning of an indirect tax (1 mark) and offers relevant diagrammatic analysis which is applied to internalising external costs (2+1 marks). Consideration is then given to the impact of the increase in petrol tax on small businesses and how there might be an increase in the use of public transport (1+1 marks).

\*(d) Evaluate the likely economic effects of an increase in the tax on petrol in the UK.

(12)

The tax on petrol is an indirect tax as it is charged on the good petrol not directly on the individual. The consumption of petrol causes negative externalities to occur in the economy such as air pollution from carbon emissions.



The welfare loss felt from petrol consumption is  $A E_1 E$ . When a tax is imposed MPC shifts left to  $MPC + tax$  internalising the negative externalities. The price of petrol increases  $p$  to  $p_1$  by about 33% and consumption fell  $q$  to  $q_1$  as the good became too expensive. This fall in quantity could cause negative impacts on ~~society~~ the economy as small businesses are forced to close. Small businesses in the UK provide innovation and competition & stimulating economic growth so it is a disadvantage if they close. A further increase on petrol tax will probably see a fall in private



### ResultsPlus

#### Examiner Tip

Some evaluation is offered when recognising that the increase in tax revenue could be ear-marked for public transport subsidies (1 mark). Furthermore, some discussion is made to a petrol tax working with the market and the implications of this (2 marks). By expanding the evaluative comments, full marks could be achieved, for example, consideration of price elasticity of demand for petrol or the magnitude of the tax increase in relation to the current level of tax on petrol as shown in Figure 2.



## Question 9 (d)



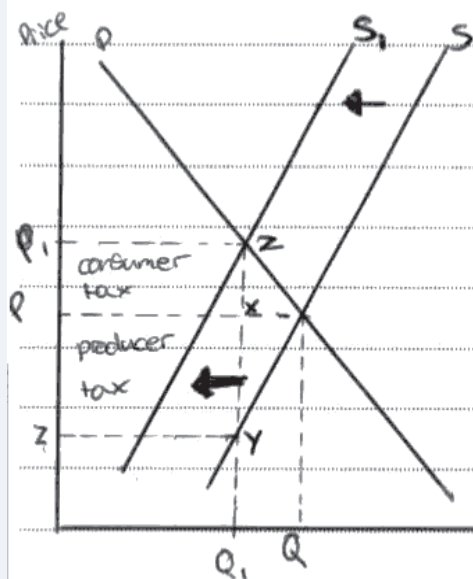
## ResultsPlus

### Examiner Comments

This candidate scored 6 out of 12 marks.

The candidate starts well by providing a diagram and its explanation (3 marks). This is followed by identifying a range of effects which are barely developed, for example, an increase in usage of public transport, car firms going bankrupt and the mobility of labour falling (3 marks). Overall, there is a lack of evaluation.

\*(d) Evaluate the likely economic effects of an increase in the tax on petrol in the UK. (12)



The tax causes the supply line to shift from  $S$  to  $S_1$ . This moves the equilibrium point from  $PQ$  to  $P_1Q_1$ . This causes a rise in price and a fall in demand.

The area  $P_1ZXP$  is the consumer tax.

The area  $PXPZ$  is the producer tax.

This will cause more money to be spent on finding alternatives to petrol. Also there will be a decrease in car usage and an increase in public transport usage. Car firms will ~~lose~~ lose money and become bankrupt because ~~cost~~ running a car will be more expensive. The mobility of labour will decrease because workers will not be willing to ~~drive~~ travel far for work because it will be too expensive. A negative effect on the economy.

## Question 10 (a)

**ResultsPlus**

Examiner Comments

This candidate scored 6 out of 6 marks.

The candidate identifies and explains two distinct reasons for the increase in licensed private cars over the period. Each is dealt with in separate paragraphs. Explicit data reference is made to the increase in licensed cars. This is followed by data reference to the increase in weekly wages which make cars more affordable. Furthermore, cars are identified as normal goods (3 marks).

(a) With reference to the data, explain **two** likely reasons for the change in the number of licensed private cars between 1996 and 2006.

(6)

First and foremost, ~~as~~ licensed private cars are normal goods so an increase in income will cause an increase in the quantity demanded. This is reflected by the statistics as the number of licensed cars increased from 21.2 million to 26.5 million in the years 1996 to 2006, and the average gross weekly wage also increased from £397 per week in 1996, to £615 per week in 2006. This meant that more consumers were able to purchase cars so the effective demand for cars increased in the years 1996 to 2006.

Another reason that consumers may have chosen to purchase cars is that, although the cost of travel by motor vehicle has increased by 19% from 1996 to 2006, the cost of bus <sup>fares</sup> ~~travel~~ has increased by 46.6% and the cost of rail fares has increased by 36.3% in the same period of time. This means that some consumers will switch to ~~the~~ using cars as, although they may be more expensive, it is worth more in the eyes of the consumer as the benefits gained ~~to~~ per unit price are greater than that for a bus ~~or~~ train.



## ResultsPlus

### Examiner Tip

The second reason continues in a similar vein – explicit data use to show that bus and rail travel has increased at a faster rate than motoring, causing people to switch to using cars. The candidate still recognises that use of cars might be more expensive but that it is worth more in the eyes of consumers than the benefits gained from bus and rail use (3 marks).

**ResultsPlus**

Examiner Comments

This candidate scored 3 out of 6 marks.

Unfortunately, no explicit data use is made. However, the candidate identifies that motoring costs have increased the least when compared to bus and rail travel (1 mark). In addition, the increase in household income means that people are more able to afford to buy a car (1+1 marks).

(a) With reference to the data, explain **two** likely reasons for the change in the number of licensed private cars between 1996 and 2006.

(6)

First it is because the cost of travel of cars increased the least among cars, bus and rail between 1996 and 2006, so people would choose to travel by car ~~and more people~~.

Secondly, the household income increased significantly between 1996 and 2006, showing that people is being more rich and they may able to afford buying a car.

## Question 10 (b)


**ResultsPlus**

Examiner Comments

This candidate scored 6 out of 6 marks.

The candidate starts by recognising that building more roads will create more road space and offer alternative routes to avoid congestion. This is developed by suggesting that road building could be targeted in areas of greatest road congestion (3 marks).

(b) With reference to Figure 1 and other information, examine the likely effectiveness of building more roads as a means of reducing road congestion.

(6)

Figure 1 shows that public roads in use has increased from 387,000 km in 1996 to 398,000 in 2006. Building more roads has the effect of easing congestion as it gives greater road space. It can also ease road congestion in traffic hotspots as people drivers would be able to use different routes and be able to avoid that area altogether.

However, as the data displays, the no number of licensed cars in the UK has increased much greater than the amount of increase in km of roads. Building new roads this therefore means that this increase in cars has cancelled out the benefit of building more roads and congestion would still occur. Building new roads is also only possible in the long term as it is very expensive and a long process to do so.

I therefore think that this method is effective to an extent as it does increase road space, however it needs to be in proportion to the increase in the amount of cars. Furthermore, building new roads has the effect of attracting drivers which could simply move congestion from one road to another.


**ResultsPlus**

Examiner Tip

The candidate continues by referring to Figure 1 which shows the number of licensed cars growing at a much faster rate than new roads so that the policy is unlikely to work. Reference is also made to the time span required to build roads and that it is very expensive (2 marks). Finally, building more roads might simply attract more drivers on to them and so add to congestion rather than reduce it (1 mark). Clearly this is a sophisticated answer which explores both sides and evaluates by doing so.

**ResultsPlus**

## Examiner Comments

This candidate scored 3 out of 6 marks.

The candidate suggests building more roads will provide more routes to get to work and so ease congestion (1 mark). This measure is then questioned since new roads encourage more motorists to use them (1 mark) and may simply transfer the congestion problem to another area (1 mark).

(b) With reference to Figure 1 and other information, examine the likely effectiveness of building more roads as a means of reducing road congestion.

(6)

In figure 1 we can see that the number of cars on the road has increased dramatically along with traffic and the number of roads being met. Building new roads would mean that people will be able to choose different routes to get to work etc and so congestion on a particular motorway may be reduced. However it is likely that building new roads may attract people to use it therefore not combatting the problem of congestion. It may simply ~~be~~ transfer this problem to another area.

**ResultsPlus**

## Examiner Tip

More marks could be gained by explicit data reference and teasing out the issue further, for example, discussing the opportunity cost involved, problems of securing planning permission and the limited availability of land to build on.

## Question 10 (c)


**ResultsPlus**

Examiner Comments

This candidate scored 12 out of 12 marks.

The candidate considers how a national road pricing scheme might reduce congestion, offering suitable diagrammatic analysis which internalise the external costs. A comment is also made on charging motorists at peak times and how funds raised from the scheme could be used to improve road and rail networks. Reference is also made to the £28 billion savings from wasted time delays (6 marks).

\*(c) Evaluate the case for a national road pricing scheme to reduce road congestion.

(12)

One way road congestion to be reduced is by road pricing. As said in extract one, a national road pricing scheme could reduce congestion on Britain's roads by 50%, it will reduce carbon emissions and save the economy up to £28 billion in wasted time delays.

However, when that tax is imposed it would not be fair for the poor people, who will be not able to afford it. Another concern is that by road pricing a national scheme would operate by installing satellite boxes in each car, that's good, but cost money. So these money should be taken from healthcare or private higher education, etc. Road pricing would affect motorists in different ways according to their income.

Nevertheless, with road pricing less people will use their cars, so the ~~poll~~ level of pollution will be reduced. When less people use their cars, there will be less cars on the roads, which will ease congestion.



### ResultsPlus

#### Examiner Tip

The candidate then discusses problems of the scheme such as the cost of its implementation, possible evasion by motorists and the use of alternative minor routes not subject to the charge – all leading to government failure. Overall, it just appears to scrape 6 evaluation marks.



**ResultsPlus**

## Examiner Comments

This candidate scored 7 out of 12 marks.

The candidate uses the extract information on how a road pricing scheme could reduce congestion by 50% and save the economy up to £28 billion in time delays. This is because less people will use their cars due to the charge and switch to public transport. Consideration is also given to making the transport system more efficient due to the reduction in congestion (5 marks).

Therefore, people will switch to public transport. ~~also~~ When people, who still stay on the road and pay, more money will be collected and can be used to improve public transport.

By setting prices, both the congestion and the environmental cost of travel will be reflected, the transport system can be used more efficiently. It will support UK competitiveness and will contribute to reduce emissions. In the long run, Britain will require very significantly more road transport infrastructure.

**ResultsPlus**

## Examiner Tip

Problems of the scheme are rather brief, considering the impact on poor people and the cost of installing the satellite boxes in vehicles (2 marks).

## Question 10 (d)

**ResultsPlus**

Examiner Comments

This candidate scored 7 out of 8 marks.

The candidate identifies a tax on workplace parking as a means of reducing road congestion (1 mark) and suggests the revenue collected could be used to reduce the price of public transport and encourage motorists to use this (2 marks).

(d) With reference to lines 8–9 of Extract 2, assess **one** alternative measure the government might undertake to reduce road congestion.

(8)

By placing a tax on workplace parking, the government may encourage a 'tax evasion' whereby consumers park elsewhere to avoid the tax. This would mean that ~~their~~ their plan to reduce the number of cars on the road would not be very efficient effective, as people will ~~stay~~ still drive to work instead of using public transport. Therefore, the Govt may end up wasting money on the scheme which could have been spent elsewhere in the economy. ~~It~~ Where some consumers may not be able to afford the tax, they may change jobs or <sup>eventually</sup> become unemployed. This would be an example of Govt failure.

However, the tax may increase Govt revenue ~~and~~ which could be spent elsewhere eg. public transport.

The tax may decrease the number of cars on the road as public transport <sup>(overall)</sup> may be cheaper than the tax, this would then encourage more people to get the train or bus to work, therefore decreasing congestion + pollution.



## ResultsPlus

### Examiner Tip

Evaluation is provided in terms of motorists parking outside of their workplace to avoid paying the tax and so it is unlikely to be effective, with money being wasted on the scheme (2 marks). Affordability of the tax and how people may change jobs to avoid it is also discussed (2 marks).

Note candidates were required to refer to one of the three measures mentioned in lines 8-9 of extract 2, namely, car-sharing lanes, a tax on workplace parking or converting hard shoulders into motorway lanes.

## Question 10 (d)


**ResultsPlus**

Examiner Comments

This candidate scored 6 out of 8 marks.

The candidate identifies the use of the hard shoulder on motorways as a means of reducing road congestion (1 mark) and uses data to show that it is relatively cheaper than road widening - an important point in today's economic climate (2+1 marks).

The candidate offers evaluation in the last paragraph by questioning the wisdom of such a scheme since it would affect the ability of emergency services to deal with breakdowns on motorways. (2 marks).

(d) With reference to lines 8–9 of Extract 2, assess **one** alternative measure the government might undertake to reduce road congestion.

(8)

The government have almost dismissed the idea of road taxing in favour of schemes, such as converting the hard shoulder into motorway lanes. It seems a more financially viable option, it costs £6 million in comparison to £75 million to widen the roads. In the economic climate, finance has to be the main objective. Ever increasing public spending would not be complemented by a tax increase. If one is necessary, then the smaller the better.

However the hard shoulder does exist for a reason. Where would the emergency services relocate to and where would breakdowns be dealt with. There are some serious implications to the scheme.

## Question 10 (e)


**ResultsPlus**

Examiner Comments

This candidate scored 6 out of 6 marks.

A sophisticated answer is given where normal and inferior goods are both defined, along with income elasticity of demand (1+1+1 marks).

(e) Using the data in Figure 3, analyse whether bus travel is a normal or an inferior good. 6 Q10e

(6)

A normal good is a good which, when income rises, demand increases. However, an inferior good is a good which when income rises, demand falls.

~~Bus travel is an~~

Income elasticity of demand measures the effect on demand of a good with a change in income.

$$YED = \frac{\% \text{ change in demand}}{\% \text{ change in income}}$$

$$YED = \frac{0.08}{0.549}$$

$$YED = 0.146 \text{ (3\%)}$$

Therefore YED is inelastic, meaning that a change in income results in a smaller or less than proportionate change in demand for bus travel.

Meaning that bus travel is an inelastic normal good.


**ResultsPlus**

Examiner Tip

A correct calculation of income elasticity of demand for bus travel is made from the data provided (0.14) which is identified as being income inelastic in demand (2+1 marks). Only the very best responses made use of the data by calculating income elasticity of demand.

## Question 10 (e)


**ResultsPlus**

Examiner Comments

This candidate scored 3 out of 6 marks.

A definition of inferior and normal goods is provided (1+1 marks), along with specific use of income and bus travel figures (1 mark). However, no attempt is made at calculating income elasticity of demand.

(e) Using the data in Figure 3, analyse whether bus travel is a normal or an inferior good.

(6)

An inferior good is one where, as income increases, demand decreases.

However, it can be seen from figure 3 that bus travel is a normal good. A normal good, is a good which, as income increases, demand too increases.

In figure 3, it shows the amount of bus travel, weekly, increasing from 5.0 billion vehicle km travelled in 1996 to 5.4 billion vehicle km travelled in 2006. These figures have risen alongside the rising incomes from £397 p/week in 1996 to £615 p/week in 2006.

It can be deduced from figure 3 that bus travel is, therefore, a normal good because, as income increases, so does the amount of bus travel. The bus travel figures show that this way of travel has been <sup>increasingly used</sup> ~~increased~~ demand since 1996 and, as a result, demand ~~increases~~ has increased.

## Question 10 (f)



ResultsPlus

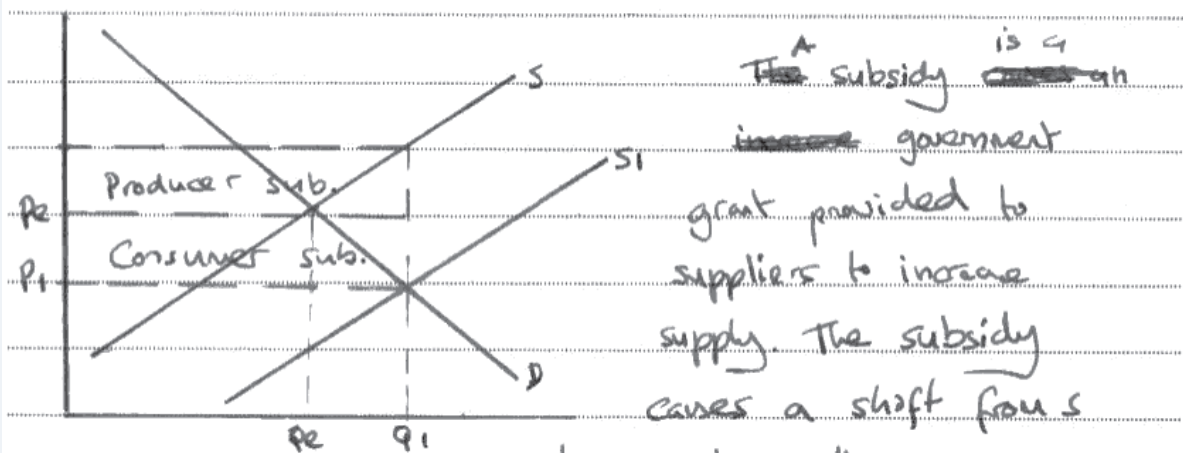
Examiner Comments

This candidate scored 10 out of 12 marks

All six knowledge, application and analysis marks are gained by defining a subsidy (1 mark), explaining the diagram (3 marks) and then exploring how it could lead to improved bus and rail transport (2 marks).

\*(f) Evaluate the likely benefits of an increased subsidy for bus and rail travel. Use an appropriate diagram to support your answer.

(10)



~~increase~~ increase in supply from  $Q_2 \rightarrow Q_1$  thus a decrease in price from  $p_2 \rightarrow p_1$ .

The subsidy means that bus and train fares may decrease to provide cheaper travel for consumers.

The subsidy can be used to improve quality of transport i.e. more frequent buses or trains.

Cleaner trains or buses.

The subsidy will benefit those with lower incomes as they have to pay less for transport however it won't impact those who have higher incomes as much as bus and train travel is considered an inferior good.

~~In~~ In the short term it will be slightly effective as people ~~will~~ with lower incomes may switch however ~~in~~ in the long term as people's income rises they may choose to buy a car.

The effectiveness of ~~a~~ the subsidy depends upon the price elasticity for the demand of bus travel. If it is inelastic then the demand won't significantly increase.

~~has~~ The government subsidy will cause a rise ~~in~~ in taxes eventually so some may argue that it is better to invest in a more effective situation.

It can be concluded that the cons outweigh the pros and that a subsidy on buses and trains is a waste of tax payers money.



**ResultsPlus**

Examiner Tip

Evaluation marks are gained by questioning the effectiveness of the subsidy. This includes discussion on whether public transport is an inferior good and whether demand is price inelastic. The issue of paying for the subsidy from government finances is also raised (1+2+1 marks).





## ResultsPlus

### Examiner Comments

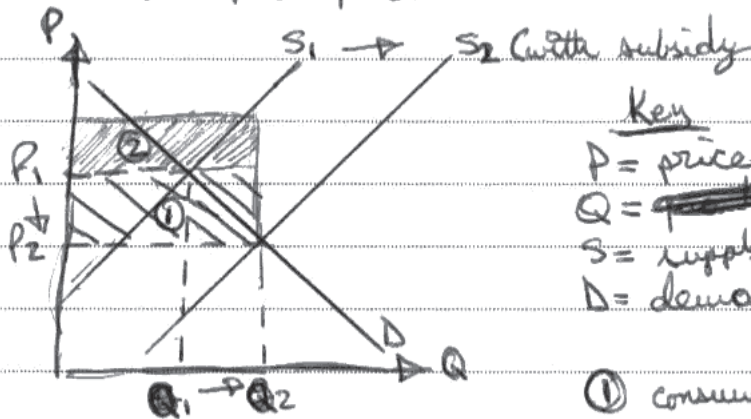
This candidate scored 6 out of 12 marks

All six knowledge, application and analysis marks are gained by defining a subsidy and suggesting it helps to reduce costs (1+1 marks). This is reinforced with diagrammatic analysis (3 marks) and a suggestion that it will make it more available for 'the people' at lower prices (1 mark). It just about scrapes the six marks available.

\*f) Evaluate the likely benefits of an increased subsidy for bus and rail travel. Use an appropriate diagram to support your answer.

(10)

Subsidy → A grant from the government which encourages firms to reduce the market price so they can sell more. The price falls because the subsidy reduces the costs of production of a firm.



Key  
 P = price  
 Q = ~~quantity~~ output  
 S = supply  
 D = demand

① consumers gain } total  
 ② producers gain } society's gain

The subsidy reduces the amount of ~~costs~~ costs of production making the supply increase ( $S_1$  to  $S_2$ ). This increase in supply will lower the prices of the ~~price~~ prices ( $P_1$  to  $P_2$ ) and make it more available for the people. Furthermore output increases to  $Q_2$  which is the optimal level of output. With this subsidy, the demand is supposed to increase and help the people to buy the tickets at lower prices.

**ResultsPlus****Examiner Tip**

Unfortunately, no evaluative comment is offered and so it was effectively marked out of six marks. This candidate answer demonstrates the importance of offering evaluative comments, especially in the large mark base questions.

## Grade Boundaries

### 6EC01

Paper No.	A	B	C	D	E
6EC01	52	45	38	32	26

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