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# Examiners' Report

## June 2017

GCE Economics A 8EC0 01

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## Introduction

This was the second sitting of this paper (8ECO 01) from the new specification launched in September 2015. 8ECO paper 01 tested candidates on their knowledge and understanding of topics covered in Theme 1 of the specification content.

The structure of the paper comprised of two sections. Section A included five short questions, broken down into smaller parts, based on a spread of specification elements in Theme 1 (totalling 20 marks), candidates were advised to spend 25 minutes on this section. Section B focused more particularly on the cigarette market, a topical market in the news, with a wide range of data provided from which candidates could draw to gain application marks (totalling 60 marks), candidates were advised to spend 1 hour and 5 minutes on this section. Section B comprised of one data response question broken down into a number of parts, including a choice of extended open-response questions; candidates select one essay from a choice of two. The total time available for this paper was one and a half hours and there was little evidence of candidates running out of time. Overall, the paper appeared accessible to the vast majority of candidates and differentiated effectively.

In Section A each short question was broken down into a non-supported multiple choice questions, using option boxes which were dealt with well, plus a short answer question worth 1+2 or 3 marks. Three-mark responses were often impressive with good subject knowledge (K) often starting with a definition, analysis (An) and application (App) where required, although candidates would benefit from ensuring they attempt to apply their answers given the data/context provided.

In Section B there was a concern about how many substantial points needed to be made, the new specification approach is to ensure good economics is rewarded rather than over worrying about a set structure to respond. This was highlighted with the 10 mark response where one substantial point regarding rational behaviour would have been sufficient, assuming it demonstrated an understanding of the concept in context, was fully integrated and answered the broad element of the question (perhaps connecting mini points well applied). This, followed by one substantial applied evaluative point, which answered the broad elements of the questions through a coherent chain of reasoning, was sufficient to obtain full marks on one page. Candidates who made two substantial points each evaluated in depth typically required additional paper and may have limited their time available to answer other questions. Additional paper will be made available in future papers but as indicated on the front page of the exam: "Answer the questions in the spaces provided – there may be more space than you need." Of course where a 10 mark question requires candidates to assess two reasons or the effects then there is a requirement to move beyond substantially evaluating one major point. It is pleasing that candidates grasp the need to provide logical chains of reasoning with their analysis and applying theory and data to questions. Most candidates grasped the need in the 15 mark and 20 mark responses that a limited number of points (typically two substantial points) evaluated in depth would be sufficient to access top levels rather than the legacy specification approach where a specific number of points were required. A large number of points evaluated at each step can create a rather disjointed response which lacks integration or clear chains of reasoning.

There was still some evidence of candidates struggling with evaluation with it either missing or at Level 1 evaluation which is often generic or thin. For top level evaluation ensuring it was well explained and in context was required. Centres may wish to practice more on getting candidates to evaluate what they have already written as their substantial point and to critically evaluate the knowledge, chains of reasoning and data as a means of developing

their evaluation. This will also help them to access top level essay evaluation (L3e) in the essays where 'sustained judgement' is required. Candidates would benefit from attempting to weigh up theory and the sufficiency of the data as they write, to offer clear and sustained judgement. With the essays a small number of candidates still did not indicate clearly which essay 6(f) or 6(g) they were answering by marking a cross in the box available, although their written responses did make it clear.

It is important to practise full papers using the Sample Assessment Materials, May 2016 and May 2017 papers under timed conditions to strengthen exam skills. In addition across the paper diagrams drawn would benefit, in some cases, with more precision in accurately and fully labelling as well as a careful explanation of them. 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 how to improve further.

## ***Section A:***

### **Multiple-choice and short-answer questions**

A significant number of candidates were very well prepared and demonstrated an excellent understanding of both the new specification and the techniques involved in answering the questions. The multiple choice questions format provided an accessible format for candidates to select their chosen option and in order to increase candidate accessibility, future options will be placed in alphabetical or numerical order. Candidates are mostly confident in using definitions, annotating or drawing diagrams and calculations. An area to work on would be completing tables and ensuring a careful reading of the question set and data/context provided.

## ***Section B:***

### **Data response questions**

The new format for data questions met with a positive response on the whole. Responses to 6(a) on revenue provided confident diagrams carefully illustrating and labelling the fall in revenue. The quantitative skill 4-mark calculate question 6(d) was straightforward, with the overwhelming majority of candidates showing their working and obtained full marks. Evidence of candidates mastering the breadth and depth of the specification were clear in response to 6(b) on assessing rational behaviour in context.

There was a substantial weighting for evaluation marks (16 out of 45 marks) in the level-based responses. A 10 mark question comprises 4 evaluation marks, a 15 mark comprises 6 evaluation marks and a 20 mark question comprises 6 evaluation marks. Consequently, it is vital that candidates make in-depth applied evaluative comments when required by the question, as well as offering judgement using positive economics throughout, in order to avoid disappointment.

Candidates have grasped the need to avoid generic evaluation comments and provided significant depth of explanation and application in their evaluation. To achieve the higher level, the maximum evaluative marks, there needed to be evidence of substantiated judgement, this was often missing or left to a conclusion which summarised the points covered and made a generic judgement call.

Both essay questions were accessible to candidates though question 6(g) (government intervention) proved to be significantly more popular than question 6(f) (free market approach); this appeared to be related to new specification content although where 6(f) was answered responses were confident and applied well indicating candidates are becoming more eloquent with this concept.

### Question 1 (a)

Most candidates achieved 1 mark by defining opportunity cost. This question polarised performance with a significant number ignoring the 'marginal' content of the question, many calculated the opportunity cost cumulatively in the column provided. Top marks were awarded for completing the columns correctly using marginal analysis and referring to the table for contact to define opportunity cost to score the third mark.

Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1 The production possibility frontier for an economy is shown in the table below.

Capital goods output (million units)	Consumer goods output (million units)	Opportunity cost
0	42	-
10	40	2
20	36	4
30	30	6
40	22	8
50	12	10
60	0	12

(a) Explain, using marginal analysis from the table above, the concept of opportunity cost. (You may use the last column in answering the question.)

value of the (3)

Opportunity cost is the ~~the~~ next best alternative forgone when making a production decision, for example when moving between 0 to 10 million capital goods, the opportunity cost is 2 million consumer goods, the marginal opportunity cost increases as capital output increases - as at 60 m capital goods, the opportunity cost is 12m consumer goods.



**ResultsPlus**

**Examiner Comments**

This answer achieved 3 out of 3 marks.

The candidate began by accurately completing the table as instructed, (1 Application mark). They then provided an accurate, concise definition of opportunity cost (1 Knowledge mark) before linking this as an example to the opportunity cost of the economy of moving from consumer goods to capital goods is initially small compared to gains in production. This was made using numerical references (1 Analysis mark) and the marginal opportunity cost increases again made numerically explicit.



**ResultsPlus**

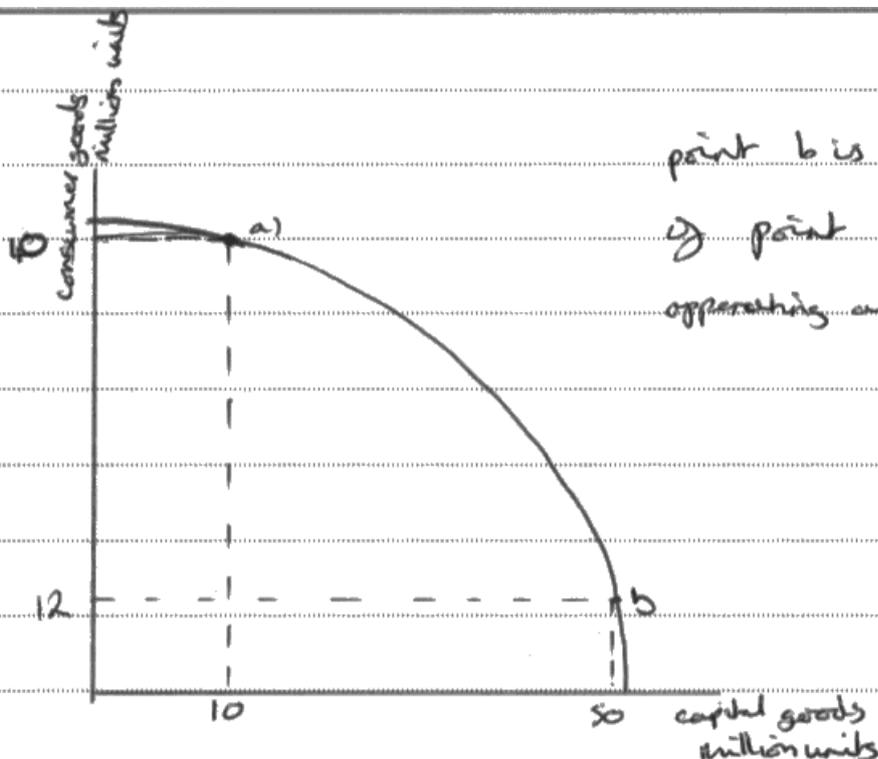
**Examiner Tip**

Make sure you use the table provided and any calculations you have made to answer the question set.

(a) Explain, using marginal analysis from the table above, the concept of opportunity cost. (You may use the last column in answering the question.)

(3)

Opportunity cost is the cost of the next best alternative. For example when using marginal analysis, when an economy produces 42 million units of consumer goods it is unable to produce any units of capital goods. The opportunity cost of this would be producing 10 million capital goods and 40 million consumer goods. This can be modelled in a PPF with the second scenario labelled a.



point b is an opportunity cost of point a when the economy is operating at full employment.



### ResultsPlus Examiner Comments

This answer achieved 1 out of 3 marks.

The definition provided was correct (1 Knowledge marks). Application was missing from the table with no attempt to complete it and confused in the written response (0 mark for Application). A PPF diagram was drawn but the attempt to link it to the question set was not clear (0 mark for Analysis).



### ResultsPlus Examiner Tip

It is good practice to start with a definition, but look carefully at what the question is asking you to do with the concept – in this case 'using marginal analysis'.

## Question 2 (a)

The most common correct definition was for a benchmark year or words to that effect. Sixty-four percent of candidates answered this correctly.

2 The table below shows UK wheat production between 2010 and 2015.

Year	Wheat production ('000 tonnes)	Index numbers of wheat production (2010 is base year)
2010	14 878	100
2011	15 257	102.7
2012	13 261	89.1
2013	11 921	80.1
2014	16 606	111.6
2015	16 129	108.4

(Source: adapted from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/466383/farming-statistics-2015-wheat-and-barley-production-uk.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/466383/farming-statistics-2015-wheat-and-barley-production-uk.pdf))

(a) Define the term 'base year'.

(1)

Base year is the year used to compare performance in following years in this case the amount of wheat produced.



### ResultsPlus Examiner Comments

This answer achieved 1 out of 1 mark. A definition of 'base year' was accurately provided (1).



### ResultsPlus Examiner Tip

The mark scheme accommodates a range of accurate economic definitions for 'base year'. Concise accurate answers for 1 mark are the best approach.

2 The table below shows UK wheat production between 2010 and 2015.

Year	Wheat production ('000 tonnes)	Index numbers of wheat production (2010 is base year)
2010	14 878	100
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(Source: adapted from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/466383/farming-statistics-2015-wheat-and-barley-production-uk.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/466383/farming-statistics-2015-wheat-and-barley-production-uk.pdf))

(a) Define the term 'base year'.

(1)

base year is the bench mark that a market will use to compare future production output.



**ResultsPlus**  
Examiner Comments

This answer achieved 1 out of 1 mark. A definition of 'base year' as 'benchmark year' was accurately provided (1).



**ResultsPlus**  
Examiner Tip

The mark scheme accommodates a range of accurate economic definitions for 'base year'. Concise accurate answers for 1 mark are the best approach.

## Question 2 (b)

Seventy percent of candidates achieved full marks on this question. Many candidates entered the data into the column. For those only using the answer space there was evidence of lots of working so it was important for them to clearly identify their final answer.

*year because its at 100.*  
(b) Calculate the index numbers for 2011 and 2012, using 2010 as the base year. (2)

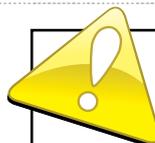
$$2011 = \frac{15257 - 14878}{14878} \times 100 = 2.56 (2.5 + 100) = 102.5$$

$$2012 = \frac{13261 - 14878}{14878} \times 100 = -10.9 \therefore -10.9 + 100 = 89.1$$



**ResultsPlus**  
Examiner Comments

This answer achieved 2 out of 2 marks.



**ResultsPlus**  
Examiner Tip

It is advisable to show your working for your own benefit to avoid computational errors.

(b) Calculate the index numbers for 2011 and 2012, using 2010 as the base year. (2)

$$2011 = 102.55$$

$$2012 = 89.15$$



**ResultsPlus**  
Examiner Comments

This answer achieved 2 out of 2 marks and could have alternatively inserted the accurate figures in the boxes provided.



**ResultsPlus**  
Examiner Tip

You can simply provide the correct answers and move on if you are certain.

### Question 3 (a)

This was a high scoring answer. The most common answers referred to government grant or encouraging consumption or production usually in context.

3 In 2015 the UK government cut subsidies for the installation of solar energy panels.

(a) Define the term 'subsidies'.

(1)

An amount of money / grant given by the government to producers to lower cost of production & increase supply



**ResultsPlus**  
Examiner Comments

This answer achieved 1 out of 1 mark. Definition of 'subsidy' was accurately provided (1).



**ResultsPlus**  
Examiner Tip

The mark scheme accommodates a range of accurate economic definitions for 'subsidy'. Concise accurate answers for 1 mark are the best approach.

3 In 2015 the UK government cut subsidies for the installation of solar energy panels.

(a) Define the term 'subsidies'.

(1)

A form of government intervention, which shifts supply curve outwards, increasing production within a market.



**ResultsPlus**  
Examiner Comments

This answer achieved 1 out of 1 mark.  
The shift supply outwards if provided as the only response would not have been awarded but government intervention encouraging production was awarded.



**ResultsPlus**  
Examiner Tip

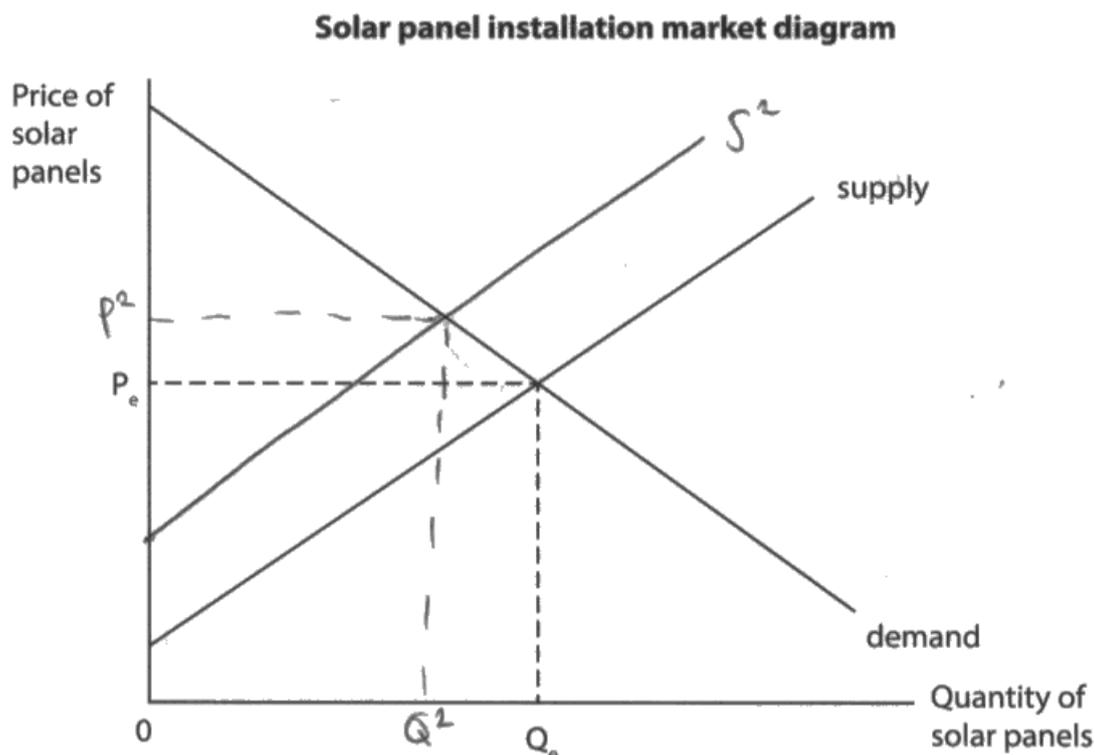
It is important you do not confuse definitions with causes or effects and thereby fail to answer the question.

### Question 3 (c)

Just over eighty percent of candidates had little trouble in obtaining full marks by making effective annotations of the diagram. A significant number of candidates lacked precision, losing a mark for not labelling the new curve or equilibrium points.

(c) Annotate the diagram below to show the effect of removing the solar panel installation subsidy on the equilibrium price and quantity.

(2)



**ResultsPlus**

**Examiner Comments**

This candidate achieved 2 out of 2 marks.

Clear and confident annotations were provided identifying the new supply curve drawn and labelled, showing a shift inwards, and the new equilibria labelled showing a rise in price and decrease in quantity.



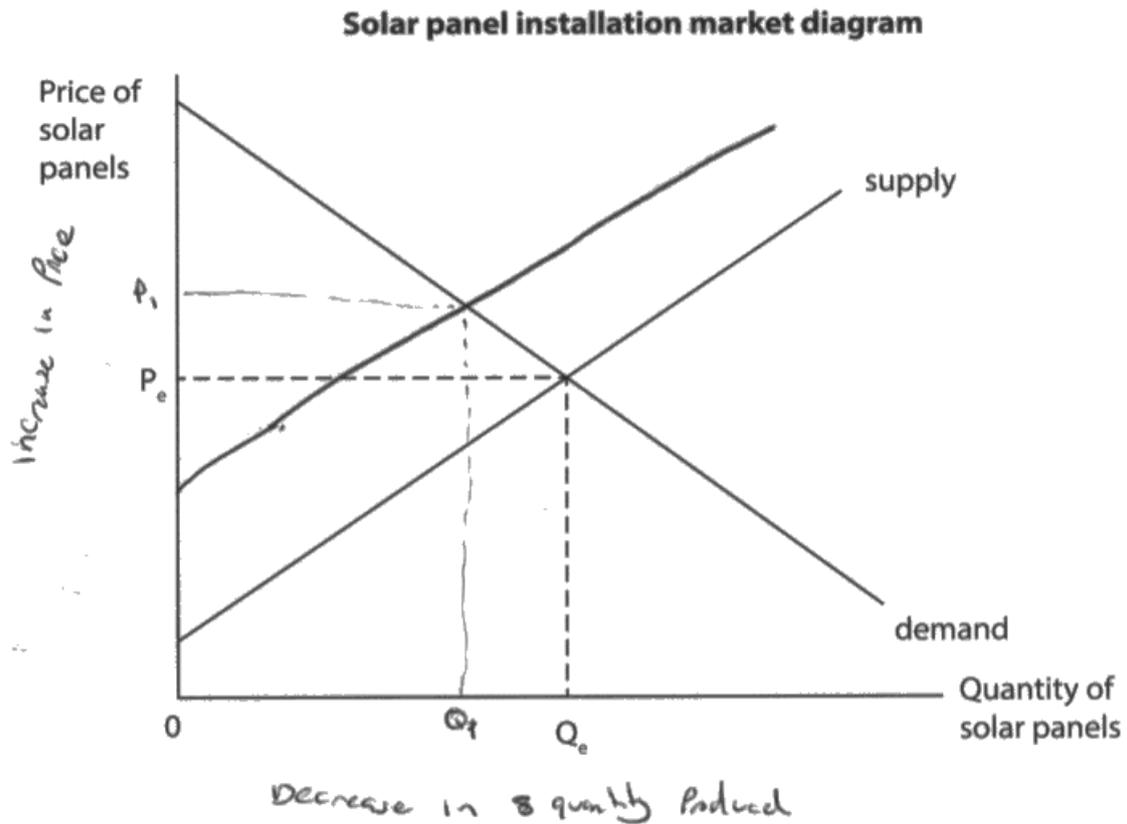
**ResultsPlus**

**Examiner Tip**

Ensure you fully label accurate diagrams to obtain full marks.

(c) Annotate the diagram below to show the effect of removing the solar panel installation subsidy on the equilibrium price and quantity.

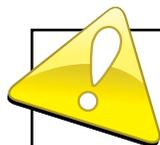
(2)



**ResultsPlus**  
Examiner Comments

This answer achieved 1 out of 2 marks.

The shift inwards in supply was accurate but not labelled. The new equilibria points were more than fully obtained and were awarded 1 mark.



**ResultsPlus**  
Examiner Tip

Ensure when you practice drawing diagrams they are always fully labelled.

## Question 4 (a)

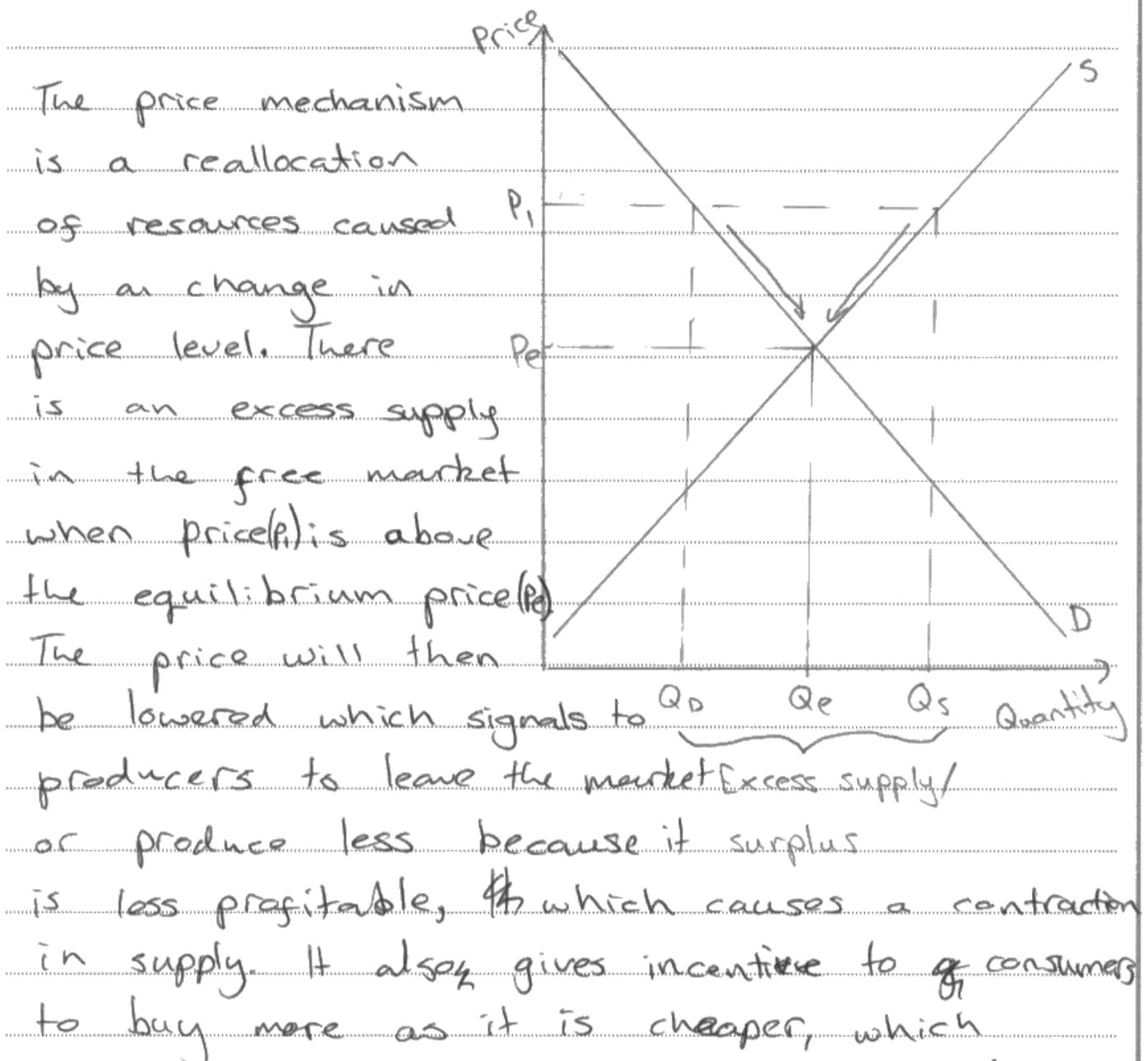
The more able responses for this question immediately identified surplus on a diagram or a written definition, there was some confusion with excess demand for some candidates. The price mechanism in a free market was usually addressed confidently with reference to signalling or the price falling below \$530 on their diagram or in written form for application. The most common limitation to candidate answers was despite many good diagrams the absence of analysis in explaining the diagram in context, with few discussing extension in demand/contraction in supply or annotating their diagrams fully as shown in the mark scheme. A number of candidates wrote in great detail about the price mechanism but failed to apply it to the context.

- 4 The excess supply of carbon steel has recently caused its global price to fall below \$530 per tonne.

(Source: adapted from <http://www.meps.co.uk/allproducts%20steel%20price.htm>)

- (a) Explain how the price mechanism responds to excess supply in a free market.

(3)



causes an expansion in the demand curve.



**ResultsPlus**  
**Examiner Comments**

This answer achieved 3 out of 3 marks.

A clear, concise and well-structured answer, based around a fully labelled accurate diagram, was provided. The candidate immediately identified the price mechanism in a free market rations (reallocates) resources (1 mark for application) then using their diagram defined at P1 excess supply (1 mark for knowledge). The use of signalling (1 Application) to contract supply (1 Analysis) and incentive (1 Application) to extend demand as illustrated (1 analysis) ensured full marks. Note a maximum of 1 mark for application and 1 mark for analysis was available. It would have been good to have seen reference to steel in the answer but there was plenty of application as awarded in the mark scheme for price mechanism.



**ResultsPlus**  
**Examiner Tip**

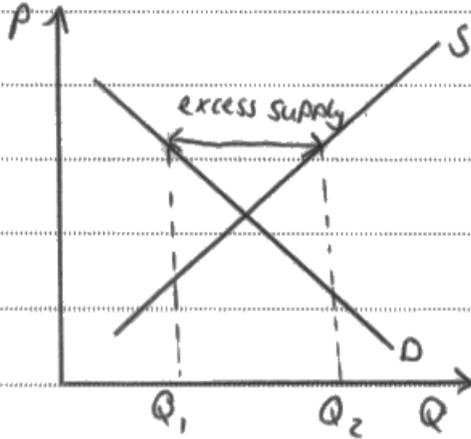
A carefully drawn diagram can be a useful aid to structure your response around.

- 4 The excess supply of carbon steel has recently caused its global price to fall below \$530 per tonne.

(Source: adapted from <http://www.meps.co.uk/allproducts%20steel%20price.htm>)

- (a) Explain how the price mechanism responds to excess supply in a free market.

(3)



\*

Excess supply occurs when the price of a good or service is too high. In the diagram  $Q_1$  is the demand for steel and  $Q_2$  is the supply.

The high price will lead to a ~~consequently~~ decrease in demand which will therefore lower the market price towards the equilibrium.

\* Excess supply is where demand doesn't meet supply and so there is a surplus.



### ResultsPlus Examiner Comments

This answer achieved 1 out of 3 marks.

The diagram was not fully labelled but was sufficient for identifying excess supply and the diagram was explained regarding the definition (1 Knowledge). The next paragraph regarding a decrease in demand was unclear and inaccurate (0 Analysis).

Finally the second attempt at defining excess supply lacked precision and alone would not have been awarded (0 Knowledge).



### ResultsPlus Examiner Tip

Take care to revise all concepts in the specification. A lack of understanding regarding the price mechanism hindered this response.

## Question 5 (a)

The more able responses for this question accurately defined excess demand and clearly identified it in a fully labelled diagram which was then briefly explained in context. There was some confusion with excess supply for some candidates. As with 4(a) the most common limitation to candidate answers was despite many good diagrams the absence of analysis in explaining the diagram in context, with few providing linked development indicating the maximum price was below the equilibrium price or reference to extension in supply/contraction in demand or annotating their diagrams fully as shown in the mark scheme. The most common application mark was reference to candidates being more able to afford higher education, marks were often lost by failing to explain the decrease in fees made them more affordable.

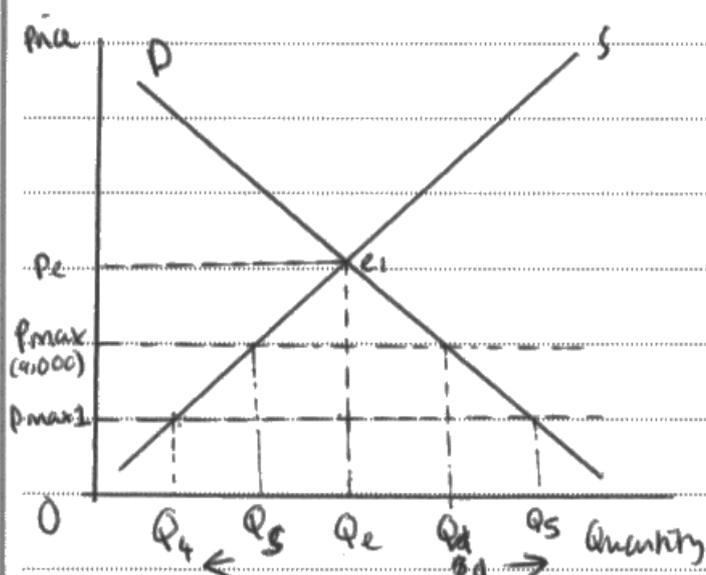
- 5 Universities UK raised concerns about the proposal to reduce the maximum tuition fees (fee cap) for undergraduate courses in England from £9 000 to £6 000. It stated "This unfunded proposal to reduce the fee cap would damage the quality of experience our universities could deliver to students and remove opportunities for those seeking to benefit from a university education".

(Source: adapted from tuition fees 2015 Times letter Universities UK  
<http://www.universitiesuk.ac.uk/highereducation/Pages/UUKboardFeesLetter.aspx#.VjoQRbfhDIU>)

- (a) Explain why reducing the tuition fee cap may result in excess demand for university places.

(3)

Maximum Tuition fees (fee cap) is an example of a maximum price control where governments set a maximum price for a good below the free market equilibrium point. The lower price means that more consumers are <sup>willing and</sup> able to afford university tuition.



If the maximum price control was lowered to '£9,000' to '£6,000' more people would be able to afford the fees. This is shown on the graph, as Price falls from  $P_{max}$  to  $P_{max1}$ , excess demand

increases from point  $Q_d$  to  $Q_s$ .



**ResultsPlus**  
**Examiner Comments**

This answer achieved 3 out of 3 marks.

The initial sentence unpacked the data to provide the economic concept of a maximum price carefully explained and then later illustrated (1 Analysis). The diagram drawn was accurate and carefully applied the initial maximum price of £9,000 (1 Application) further to this the candidate added that 'more people would be able to afford the fees' (1 Application). Finally the definition of excess demand was provided with reference to the diagram, although a little benefit of doubt was given here aided by the arrows provided (1 Knowledge). Without the definition being provided this response would have obtained 2 out of 3 marks.



**ResultsPlus**  
**Examiner Tip**

When using a diagram make use of clear and precise labels.

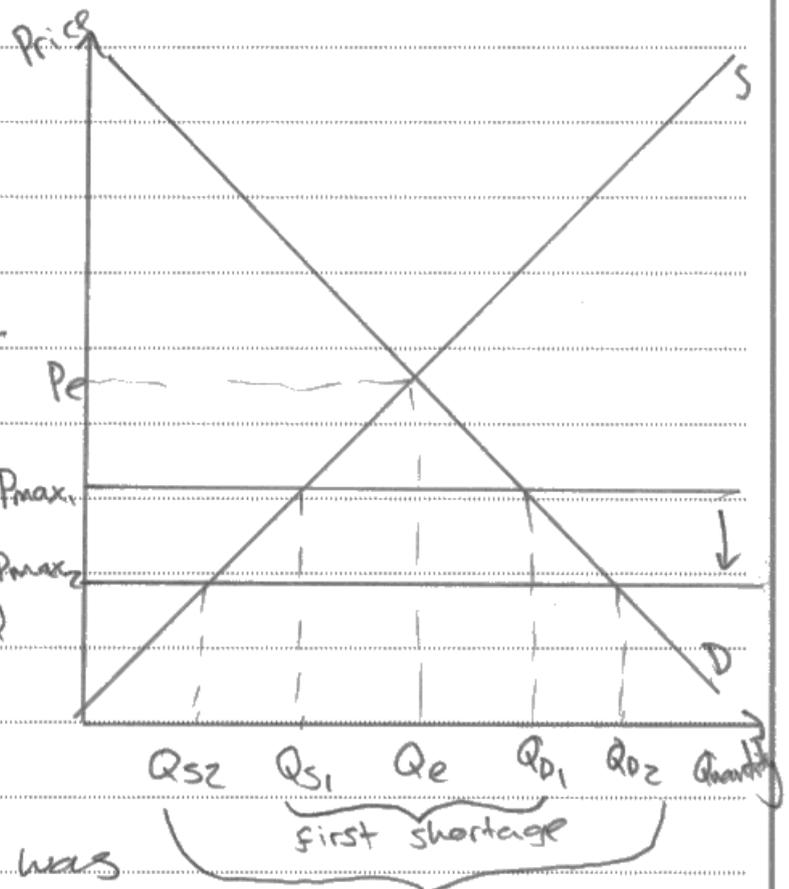
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(Source: adapted from tuition fees 2015 Times letter Universities UK  
<http://www.universitiesuk.ac.uk/highereducation/Pages/UUKboardFeesLetter.aspx#.VjoQRbfhDIU>)

- (a) Explain why reducing the tuition fee cap may result in excess demand for university places.

(3)

Reducing the fee cap will shift  $P_{max_1}$  to  $P_{max_2}$ . This will increase shift  $Q_{D_1}$  to  $Q_{D_2}$  and shift  $Q_{S_1}$  to  $Q_{S_2}$ . This leads to demand being greater than supply, even more so than it was originally, which shows an increase in shortage.



**ResultsPlus**  
Examiner Comments

This answer achieved 2 out of 3 marks.

Whilst the diagram ensured the definition of excess demand (shortage) was clear (1 Knowledge) there was no reference to the data in the diagram (0 Application). The explanation clearly provided linked development of the diagram (1 Analysis) but again did not attempt to apply from the source provided or the context of the question regarding university places (0 Application).



**ResultsPlus**  
Examiner Tip

Take care reading the question so that you answer it in full, some candidates did not pick up the application mark for university education.

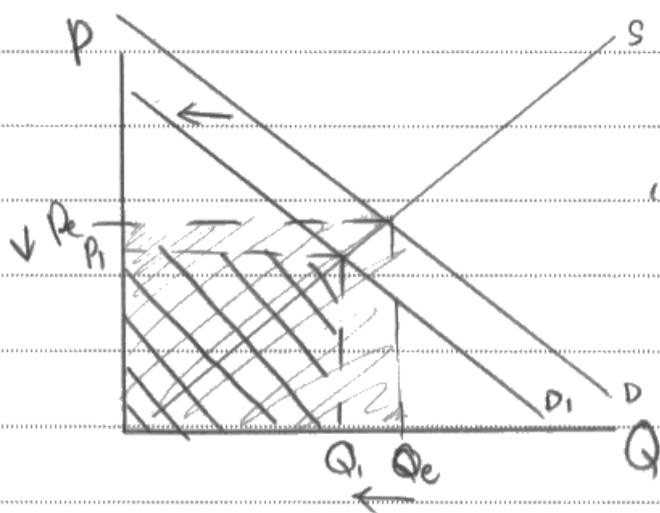
### Question 6 (a)

The question required candidates to explain why 'bans on tobacco advertising' may result in a fall in revenue. Most candidates started with a diagram and explained how the ban would shift demand to the left. More able candidates then clearly defined revenue in their written explanation or by identifying in their diagram and went on to explain or clearly illustrate the fall in revenue.

Almost all candidates drew a well-labelled and accurate diagram showing the shift but marks were lost by failing to define revenue or show the effect on revenue in the diagram, in some cases there was confusion with profit.

- 6 (a) Explain why 'bans on tobacco advertising' (Extract A, line 7) may result in a decrease in the revenue of tobacco firms. Include a supply and demand diagram in your answer.

(5)



Bans on tobacco advertising are likely to result in an inward shift of demand from  $D \rightarrow D_1$ . This is because consumers are no longer being convinced to buy them & are not

affected by advertising anymore.

If demand falls then revenue falls.

Revenue is equal to Quantity  $\times$  price

The original revenue of producers is  $P_e \times Q_e$  . However this falls to  $P_1 \times Q_1$  



**ResultsPlus**  
**Examiner Comments**

5 out of 5 marks awarded.

The answer began with applying the ban to a shift inwards in demand as illustrated (awarded 1 mark for Application). There then followed further relevant application regarding consumers but this had already been awarded. The candidate then defined revenue (1 Knowledge). Finally the candidate explained the decrease in revenue with a careful reference to a relevantly shaded diagram (+1 Application as well as identifying revenue worth 1 Knowledge). The diagram clearly showed the shift left in demand and the new equilibrium, aided by relevant arrows (1+1 Analysis).



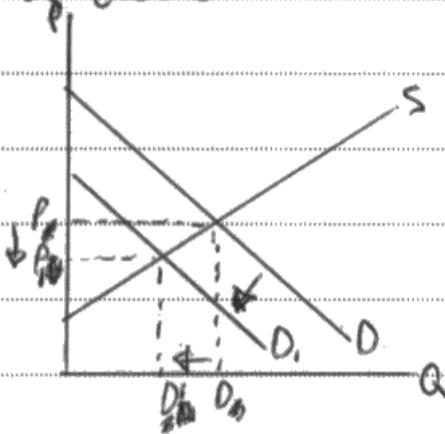
**ResultsPlus**  
**Examiner Tip**

Always make explicit use of your diagram when asked to draw one to answer the question set; in this case illustrating the decrease in revenue of tobacco firms.

- 6 (a) Explain why 'bans on tobacco advertising' (Extract A, line 7) may result in a decrease in the revenue of tobacco firms. Include a supply and demand diagram in your answer.

(5)

Considering the extract states 'tobacco companies tens of billions of dollars each year on advertising' it is likely that ~~the~~ ~~tobacco~~ tobacco firms may be quite reliant on advertising their products. A ban ~~of~~ on tobacco advertising is a regulation (form of government intervention) that should result in decreased revenue for tobacco firms. This ~~is~~ ~~should~~ ~~be~~ effective as less exposure of the products will be given to the public, likely resulting in a decrease in demand for tobacco products.



As a result of the bans, demand curve should shift to the left. As a result, ~~equ~~ the equilibrium price should reduce, leading to a fall in revenue for tobacco firms.



### ResultsPlus Examiner Comments

3 out of 5 marks awarded.

The candidate started by mostly repeating the question set before finally linking the ban to a decrease in demand (1 Application mark). The candidate then illustrated the shift in demand and explained the new equilibrium (1+1 Analysis). There was no attempt to define or identify diagrammatically the fall in revenue so there was no mark for Knowledge and no additional mark for Application.



### ResultsPlus Examiner Tip

Ensure you provide a clear definition of the key term required and make it central to your answer.

## Question 6 (b)

The question required candidates to assess the view that tobacco consumers switching to e-cigarettes is an example of rational behaviour. It proved to differentiate effectively between the quality of responses particularly at the top and lower end of the mark range. Typical responses carefully used the data to identify rational behaviour drawing on Figure 1 price comparisons, tobacco tax increases in Extract A or health concerns in Extract B. Level 2 responses tended to limit themselves to using the data and their own knowledge and only a confident understanding of the concept of rational behaviour in context could access Level 3. As a consequence many answers to this question followed a similar pattern with financial gains and health concerns being most common, more able candidates used the data to support their answers and discussed concepts such as utility. Some candidates were able to correctly define rationality although many thought it was predictable or sensible behaviour. This was a high scoring question with the majority of candidates using the data to evaluate fully. There was little evidence of candidates flipping KAA and EV, which was awarded as the mark scheme allowed. Responses which provided thin evaluation by just mentioning magnitude of price differences or tax rises only achieved a Level 1 evaluative award. Level 2 evaluation often referenced the data with information gaps as to the benefits or brand loyalty of cigarettes often coming up.

(b) With reference to the information provided and your own knowledge, assess the view that tobacco consumers switching to e-cigarettes is an example of rational behaviour. <sup>unhealthy</sup>  
- herding behavior

(10)

Rational behaviour is the idea that consumers aim to maximise their own welfare. Tobacco consumers switching to e-cigarettes may be an example of rational behaviour due to it being a physically "healthier option" especially with estimates that "8 million <sup>each year</sup> will die as a result of smoking cigarettes by 2030", therefore by a consumer switching to e-cigarettes they may be improving their life expectancy, thus increasing their welfare and quality of life in the long term.

However, consumers switching to e-cigarettes may be an example of irrational behaviour especially if the choice is made based off the idea that others are switching their consumption to e-cigarettes, this herding behaviour may be irrational as consumers ~~are~~ may not be maximising their welfare, <sup>because</sup> especially if they prefer cigarettes to e-cigarettes, despite it being healthier.

Also, consumers switching to e-cigarettes may be an example of difficulty in computation and thus a irrational behaviour. If consumers are only presented the negatives of cigarettes <sup>by the government</sup>, they may not be able to make an informed decision and thus won't be maximising their welfare if the benefits of cigarettes outweigh the benefits of switching their consumption to e-cigarettes.



**ResultsPlus**

**Examiner Comments**

10 out of 10 marks awarded.

The candidate achieves all 6 Knowledge, Application and Analysis marks available by securely achieving top Level 3 (L3KAA) in their first paragraph. They immediately answer the question by defining rational behaviour and linking their understanding in a fully integrated context. The candidate then demonstrates their evaluative skills in the second paragraph which carefully applies herding behaviour as irrational behaviour in context, achieving Level 2 evaluation (L2 EV). The final paragraph includes another evaluative comment raising the issue of computational problems with measuring welfare benefits in depth and in context. Given the quantity and quality of evaluation there is a case for flipping KAA and EV, to guarantee full marks, as indicated on the mark scheme.



**ResultsPlus**

**Examiner Tip**

Make sure you develop key knowledge with concise explanations and precise use of data. Similarly, well-balanced evaluation will also be well explained and in context as in this example; albeit perhaps not so extensive given time constraints.

(b) With reference to the information provided and your own knowledge, assess the view that tobacco consumers switching to e-cigarettes is an example of rational behaviour.

(10)

Rational behaviour is when consumer or producer making decisions without considering the ~~external~~ external costs ~~and~~ and benefits.

People may switch from tobacco to e-cigarettes ~~they~~ think that it may be a bit better for the health. It may cost £19.99 expensive than normal tobacco cigarettes £9.50 but these consumers have a lack of information on their product and ~~it~~ this is where the ~~is~~ problem of information gap arise.

Information gap is when the ~~for~~ consumer and producer make decisions ~~to~~ having having lack of knowledge about the product which ~~therefore~~ ~~and~~ lead to a market failure. This is when the consumers and producer make decisions without considering other factors such as cost and benefits.



**ResultsPlus**  
**Examiner Comments**

4 out of 10 marks awarded.

This candidate starts by not correctly defining rational behaviour. The reference to health benefits is thin and borderline Level 1 or Level 2 KAA. The candidate then raises the issue of possible computational problems with lack of information but it is unclear and not totally convincing, receiving low Level 1 Ev and lifting the KAA award slightly. It received Level 2 and Level 1e – = 3+1Ev.



**ResultsPlus**  
**Examiner Tip**

It is essential that candidates take the time to carefully structure their responses. In this case using the data to identify rational behaviour; then identifying reasons for not being rational using the information provided. Careful revision of all Theme 1 concepts also helps ensure a candidate is not second guessing their response as they work through it.

### Question 6 (c)

The question asked candidates to explain how changes in the price of tobacco cigarettes may affect the demand for e-cigarettes over time, given tobacco cigarettes and e-cigarettes are considered to be substitutes.

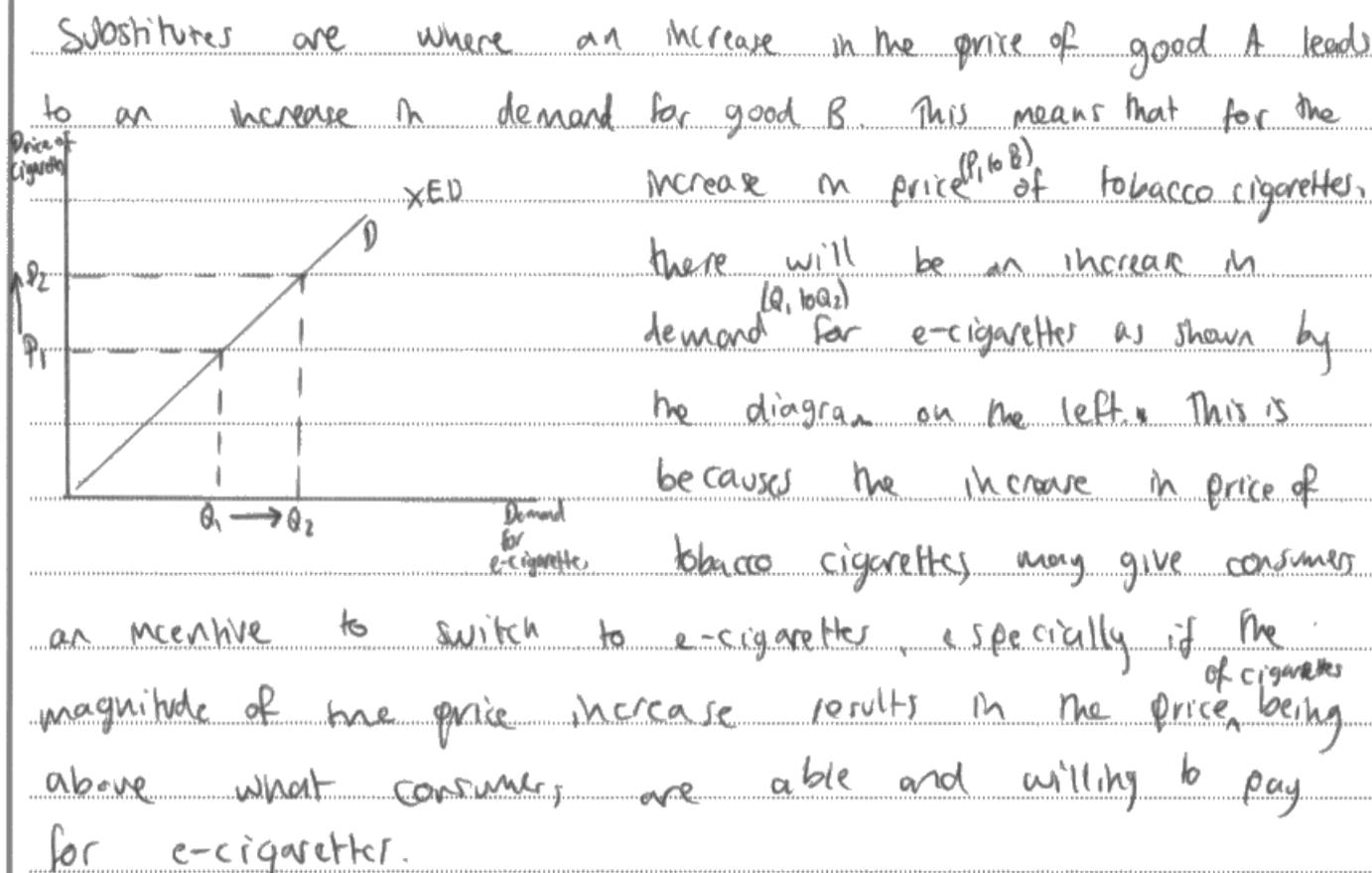
High scoring candidates confidently identified a close substitute relationship with a positive cross price elasticity of demand greater than one and explained in context.

Knowledge marks proved relatively easy for candidates to score with many identifying the positive relationship and/or giving the formula/definition of XED. Application marks proved harder to score, substitutes both containing nicotine being one of the more common marks. Some diagram were drawn either showing XED relationship, but fewer showing the relationship between the two markets. There was the odd attempt to evaluate which was not required for this type of question.

Tobacco cigarettes and e-cigarettes are considered to be substitutes.

(c) Explain how changes in the price of tobacco cigarettes may affect the demand for e-cigarettes over time.

(6)





## ResultsPlus

### Examiner Comments

6 out of 6 marks awarded.

The candidate started by defining substitutes through the cross elasticity of demand formula (1 Knowledge) before a linked development of analysing in context (1 Analysis). This was further aided with application to a diagram showing the impact of a price rise in tobacco cigarettes on e-cigarettes (1+1 Application). Finally the candidate gained a further knowledge mark by understanding the substitute relationship 'switching' (1 Knowledge) and analysed this with reference to the magnitude of the price increase (1 Analysis).



## ResultsPlus

### Examiner Tip

A good way of achieving maximum marks for an explain question is to carefully go through the concept, in this case the cross elasticity of demand, illustrating your knowledge of the concept as you apply it to the context.

Tobacco cigarettes and e-cigarettes are considered to be substitutes.

(c) Explain how changes in the price of tobacco cigarettes may affect the demand for e-cigarettes over time.

-1.9

-0.35

(6)

~~the~~ tobacco has ~~an~~ an inelastic PED therefore changes in price have little effect on the demand. ~~An~~ An increase in cigarette prices ~~will~~ will only have a small ~~change~~ increase on the demand for e-cigarettes and a decrease in the cigarette price would cause a decrease in demand for e-cigarettes



**ResultsPlus**

**Examiner Comments**

2 out of 6 marks awarded.

The opening sentence was not relevant to the question set. There was some understanding of the relationship (1 Knowledge) in the next elongated sentence with a limited example of analysis (1 Analysis).



**ResultsPlus**

**Examiner Tip**

Always look carefully at the question. The initial stem of the question, referred to 'substitutes', as this can act as a prompt to guide you to the correct concept to be considered.

### Question 6 (d)

The question was one requiring use of quantitative skills and provided an accessible question asking candidates to calculate the price elasticity of demand for tobacco cigarettes in high-income countries and in low-middle-income countries. Eighty five percent of candidates achieved full marks by correctly applying the PED formula twice to the data provided in Extract A, lines 11–13. Where marks were lost was an inability to identify the correct formula to perform the calculation. Where the correct formula data was substituted into the formula but the wrong answer was provided this was awarded 1 of the marks available. Answers which simply wrote down an acceptable accurate response, 0.4 and 0.5, were awarded full marks.

(d) With reference to Extract A, lines 11–13, calculate the price elasticity of demand for tobacco cigarettes in high-income countries and in low-middle-income countries. You are advised to show your working. (4)

4% ↓ High-income countries

10% tax ↑

$$PED = \frac{\% \Delta \text{ in } QD}{\% \Delta \text{ in } P}$$

$$\frac{-4}{10} = -0.4$$

So in high income countries tobacco is fairly price-inelastic, meaning that consumers will continue to buy tobacco ~~reg~~ even if the price changes as they are addicted to it.

5% ↓ Low-middle-income countries

$$\frac{-5}{10} = -0.5$$

So in low-middle income countries tobacco is ~~stilly~~ more price-inelastic than in higher income countries. consumers are still addicted and will continue to buy tobacco products.



## ResultsPlus

### Examiner Comments

4 out of 4 marks awarded.

Correct formula identified which if it was done in isolation with no further correct responses would obtain 1 mark. 1 mark was awarded for data located for high income countries and substituted into correct formula used (1 mark). Correct answer '-0.4' was provided (2 marks). 1 mark for data located was awarded for low income countries and substituted into correct formula used (1 mark). Correct answer '-0.5' was provided (2 marks). The written comments explaining what the answers meant were not relevant to the question so were awarded no marks.



## ResultsPlus

### Examiner Tip

Accurate working will always receive credit and candidates are strongly advised to show their working in case they make a computational error with the final answer.

(d) With reference to Extract A, lines 11–13, calculate the price elasticity of demand for tobacco cigarettes in high-income countries and in low-middle-income countries. You are advised to show your working.

(4)

High-income countries

$$ped = \frac{\% \Delta Qd}{\% \Delta P} = \frac{10\%}{-4\%} = -2.5 ped$$

= elastic

Low-middle-income countries

$$\frac{\% \Delta Qd}{\% \Delta P} = \frac{10}{-5} = -2 ped$$

= elastic



### ResultsPlus Examiner Comments

1 out of 4 marks awarded.

1 mark was awarded for a correct formula as an alternative for substituting correct figures on up to one occasion. The candidate did not then apply the data to calculate the formula for high and low income countries.



### ResultsPlus Examiner Tip

Showing your working, including stating the correct formula, may help pick up some marks if you make computational errors.

## Question 6 (e)

The question invited candidates to assess the likely reasons for the difference in price elasticity of demand for tobacco cigarettes and e-cigarettes, with reference to Figure 1. More able candidates clearly understood the determinants of price elasticity of demand in context and provided a coherent chain of reasoning to access top level KAA. They did not have to cover all the reasons but often covered two in depth, typically the closeness of the substitute given and the proportion of income spent. There were many strong answers on this question, with candidates being able to distinguish and give reasons for the difference in PED. In some cases there was repetition of one reason applied to tobacco and then e-cigarettes. Less able candidates did not know the determinants of PED and often started with defining price elasticity of demand but then became confused by covering determinants which cause shifts in demand rather than determinants of the relative price elasticity of demand determinants.

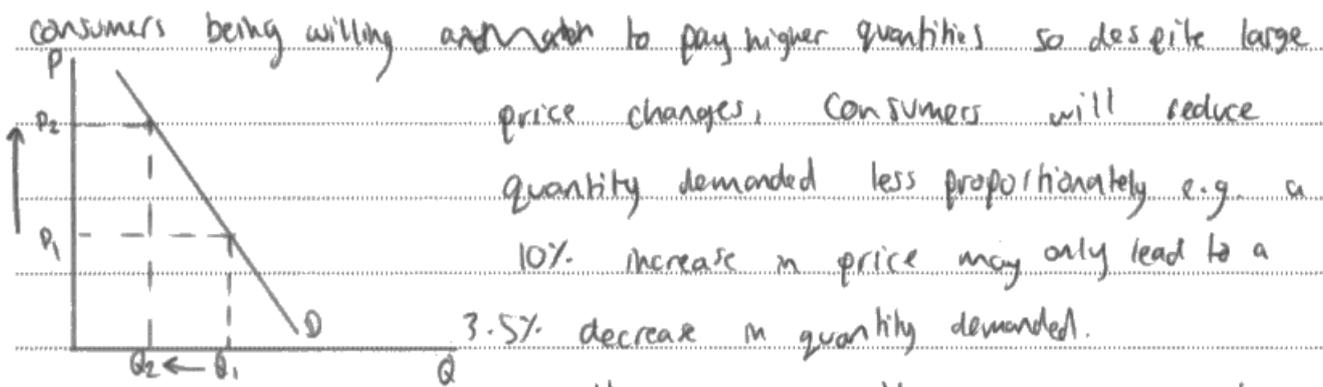
In the evaluation for high scoring candidates some behavioural approaches were often used in conjunction but evaluation typically focused on why the determinant may change over time, e.g. closer substitutes or changes in price often using Figure 1. Top level evaluation made use of the context and provided a clear chain of reasoning, typically completed within two separate evaluative points. Full marks were not always accessed when the answer did not consider the broad elements of the question.

(e) With reference to Figure 1, assess the likely reasons for the difference in price elasticity of demand for tobacco cigarettes and e-cigarettes. (15)

more addictive chemicals (habitual consumption) larger proportion  
inelastic elastic

Price elasticity of demand is the responsiveness of quantity demanded in relation to a change in price. Tobacco cigarettes have a price elasticity of demand of  $(-)$ 0.35 whereas e-cigarettes have a price elasticity of demand of  $(-)$ 1.9. From this we know that tobacco cigarettes have inelastic demand and e-cigarettes have elastic demand.

One reason why tobacco cigarettes has a lower price elasticity of demand (PED) than e-cigarettes is due to tobacco cigarettes containing a greater amount of addictive chemicals such as Nicotine. This means that consumers of tobacco cigarettes will become addicted to these chemicals and consumption will become habitual. This results in



However, e-cigarettes also contain these ~~harmful~~ addictive chemicals so one may question whether the elasticity of (-)1.9 has been correctly calculated and that <sup>believe</sup> the elasticity of e-cigarettes should also be much lower and inelastic. ~~Figure~~ E-cigarettes are a relatively new product so the long term effects of the chemicals ~~has~~ and how addictive they really are has not become evident yet.

A second reason why the <sup>price</sup> elasticity of demand for e-cigarettes is much more elastic ~~more~~ (higher value of PED) than cigarettes may be due to the pricing of both. Figure 1 shows that a packet of 20 tobacco cigarettes is £7.70 - £9.30 and the price of e-cigarettes is £9.99 to £19.99. Therefore e-cigarettes cost a larger proportion of a consumer's income and this makes it more inelastic as any price changes will cause a greater consumer response via changes in quantity demanded. For example a 5% or 10% increase in price of e-cigarettes will result in a greater change in quantity demanded, which would be 19% fall in quantity demanded at a PED value of (-)1.9.

However the price of a single cigarette equivalent is far smaller for an e-cigarette at 7p than a tobacco cigarette at 48p. This means that PED should be more elastic

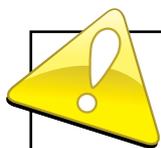
for tobacco cigarettes if consumers are acting rationally and therefore this (-) 1.9 elasticity value for e-cigarettes should be less and the (-) 0.35 elasticity value for tobacco cigarettes should be greater. The only explanation for these values is consumer difficulty in computation and therefore they do not have a full understanding in order to make a judgement on whether to change their consumption in relation to a change in price.



### ResultsPlus Examiner Comments

15 out of 15 marks awarded.

A confident start was made by concisely defining price elasticity of demand and using the data to identify relative elasticity. This was then followed by a well-structured paragraph on addictiveness of nicotine in tobacco cigarettes linked to it becoming habitual compared to e-cigarettes (Level 3+ KAA). The chain of reasoning was then well balanced with Level 3 evaluation explaining the lack of information linked to how as a new product e-cigarettes may become more addictive over-time (Level 2 EV). The use of data to compare the proportion of income taken up by the two products was then well analysed in context (L3+KAA). The final paragraph then critiqued this by questioning the PED measures and computational problems for consumers in comparing the two products (Level 2 EV). Overall it achieved top Level 3 KAA marks and Level 2 evaluation as an assess question and also achieved top Level 3 evaluation as a discuss question.



### ResultsPlus Examiner Tip

A well-structured 15 mark response will enable you to more fluidly link knowledge and understanding in context using relevant and focused examples which are fully integrated into one paragraph. This will then enable you to provide linked evaluation to a similar standard. Ensuring the evaluation is balanced and covers the broad elements of the question in depth.

(e) With reference to Figure 1, assess the likely reasons for the difference in price elasticity of demand for tobacco cigarettes and e-cigarettes.

(15)

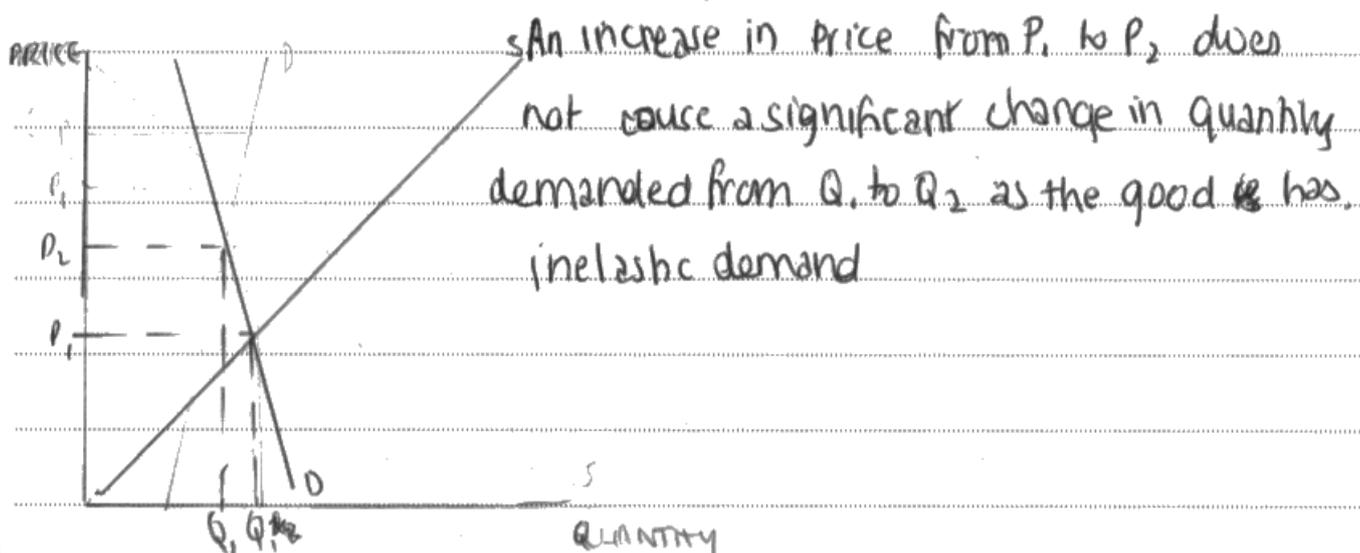
Price elasticity of demand is the responsiveness of quantity demanded to a change in price. Price inelastic is when PED is between 0 & -1. Price elastic is when it is between -1 & -∞.

The ~~price~~ PED of cigarettes may be -0.35 making it inelastic as cigarettes are addictive due to the nicotine in them. This means that once consumers start smoking it can be hard for them to stop even if they know the risks associated with it. This could therefore cause PED to be inelastic as even with a '10%' tax causing an increase in price, consumers will still demand the cigarettes as they believe they need them.

However, the PED for e-cigarettes is elastic at -1.9. This is because the e-cigarettes are not as well known as cigarettes as their 'long-term health effects' are uncertain. This could mean that consumers are going to prefer to continue smoking cigarettes as these are the substitutes to e-cigarettes, as the health issues are more known so they can make a more informed decision. Also if price of e-cigarettes rises, then consumers may simply switch back to cigarettes.

Secondly, the PED of cigarettes may be more inelastic than for e-cigarettes as smoking is a long-term addiction & due to habitual behaviour consumers may just decide to continue smoking cigarettes regardless of a increase in price. This may especially be because consumers may not ~~want~~ want to switch to the newer e-cigarettes as they are used to the brand of cigarettes they currently use.

However, the PED could depend on the income of the consumer as e-cigarettes are more expensive at '£9.99 - £19.99' whilst cigarettes are '£7.70 - £9.50'. This could mean that PED may be more inelastic for low-income workers as they may not be able to afford e-cigs so would just stick to cigarettes if the price increased. ~~However~~, This could make cigarettes inferior goods. However, consumption of cigs decreased by only '4%' for high-income workers & '5%' for low income workers which shows that regardless of the income of the consumer, the PED will still be inelastic for cigarettes due to their addiction.





**ResultsPlus**

**Examiner Comments**

9 out of 15 marks awarded.

The initial paragraph defined PED and explained relative price elasticity. The next paragraph obtained a low Level 3 response in looking at the addictive nature of tobacco cigarettes as price inelastic. Whilst the next paragraph started with 'however' it covered a separate analytical point regarding health concerns for e-cigarettes to a Level 3 standard. The next page attempted to look at a second factor regarding price-elasticity but linked addiction to habitual behaviour locking in the earlier Level 3. There was a possible separate low Level 2 coverage of brand loyalty. Again the next paragraph whilst beginning with 'however' was not convincing as evaluation. The use of the data comparing the price did not go far enough in explaining a clear reason for the different price elasticities, scoring a low Level 1 KAA. The coverage of inferior goods was wrong but the end of the paragraph was worthy of Level 1 evaluation. The diagram and its explanation achieved Level 1. Overall the response achieved Level 3 KAA and Level 1e – evaluation, resulting in 8 + 1e.



**ResultsPlus**

**Examiner Tip**

It is worth planning out your response so that your evaluation offers critical thinking supported by chains of reasoning and appropriate reference to context to achieve top level evaluation. Writing however does not guarantee you evaluative marks.

## Question 6 (f)

The question required candidates to evaluate the possible advantages of a free market approach to cigarette consumption. The question was significantly less popular than 6(g) and had more polarised responses. Candidates were expected to draw on their own understanding of a free market approach and were aided by the data in Extract B. Top Level 3 or 4 responses provided well-structured balanced responses with often some evidence of planning. They made effective use of the data in Extract B in particular and applied free market theory to non-governmental solutions using market forces, typically covering signals, rationing and incentives. Diagrammatic analysis was not required but when used was accurate and well explained with a solid chain of reasoning. More able answers referred to the substitution effect happening between tobacco and e-cigarettes and made references to utility. Hardly any candidates made a direct reference to Adam Smith or Hayek but their ideas were often implicit in the candidates writing and this was to be expected and awarded a high level. Level 4 answers often drew, in a sophisticated manner, from the broad Theme 1 specification to provide logical chains of reasoning. A key differentiator was the quality of knowledge and understanding of free market approaches, often carefully applied through logical and clear chains of reasoning. Level 2 answers tended to use basic and generic supply and demand analysis or changed the focus of the question to government intervention.

Evaluation tended to concentrate on information gaps or the role of government to prevent consumers being exploited and protecting third parties against passive smoking but could often be generic or common-sensical resulting in Level 1 evaluation. Level 2+ evaluation was placed in context and developed with a good chain of reasoning. Best uses of substantiated judgement were sustained throughout in candidates' responses as they made effective use of positive economics to make judgement calls answering the question by weighing up the free market approach to come to a clear answer to the question set.

### EITHER

(f) Evaluate the possible advantages of a free market approach to cigarette consumption. (20)

### OR

(g) Evaluate the impact of government intervention in the cigarette market. (20)

Indicate which question you are answering by marking a cross in the box . If you change your mind, put a line through the box  and then indicate your new question with a cross .

Chosen question number:      Question 6(f)       Question 6(g)

Write your answer here:

A free market is where resources are publicly owned and allocated to those <sup>are</sup> ~~are~~ willing to pay the most with not gov't intervention. Where

producers decided how much they produce, for whom and at what price.

An advantage of having a free market approach to cigarette consumption is that firms will have an incentive to keep their customers alive ~~and~~ <sup>because</sup> they still want customers to buy their product so they can take in revenue. Also consumers will obviously have an incentive to stay alive so they will try and look for a healthier option or try and quit ~~so without~~ <sup>so without</sup> gov't intervention firms and consumers will be able to limit the amount of cigarettes consumed and produced by possibly setting the prices higher or buying a substitute good. Therefore consumption will decrease.

However firms will still want sales and consumers will still be addicted. Therefore firms will still sell and consumers will still buy and therefore the government intervening may seem like the only way. It would involve 'banning advertising, raising price and restricting availability'. Banning advertising would help reduce the amount of new customers as less people would be attracted to it through ~~TV~~ adverts. This would reduce consumption. Raising price would reduce demand a bit but ~~it is~~ <sup>it is</sup> addictive so people may still buy it but in conjunction with

other methods it would help. Restricting availability would definitely help because if people couldn't get tobacco they would be forced to quit or to buy a substitute.

Another advantage of having a free market approach is the consumer may be more likely to switch to e-cigarettes. This is because with government intervention (command economy) people using e-cigarettes 'face increased regulations and in many countries they are banned'. So when people are trying to seek the healthier option it is harder for them. They may not see switching as worth their time because they will either be banned or have regulations enforced onto them and quitting would be harder than not. Therefore a free economy may be seen as better for the <sup>e-cigarette</sup> ~~free market~~ market as there will be no government imposed regulations.

However these regulations and bans may have been set for a reason that being that the long-term effects of e-cigarettes are still uncertain so they may still be bad for health. The government may think that increased taxes and banning e-cigarettes may encourage people to quit all together which would be better than switching.

Overall I think that ~~a~~ <sup>a</sup> free market would not be best when trying to reduce cigarette consumption because even though customers may want to be healthier and firms want their customers to stay alive the only reason they sell tobacco is to make money and if they're not making money then there's no point so they will want to encourage people to buy them. They put 'smoking kills' on the package so that when people die of it other customers can't blame the company for 'faulty' products and think the company itself is bad.



**ResultsPlus**

**Examiner Comments**

20 out of 20 marks awarded.

The candidate started by defining free market and after making a confused comment about 'publicly owned' provided an accurate definition which was also implicit throughout the essay. The first advantage they focused on was the incentive effect for firms and consumers. The paragraph was well-structured, demonstrating a logical and coherent chain of reasoning in context to a Level 4 standard. The evaluation provided a case for government intervention against the free market which was valid and in context. The second advantage of having a free market was it makes it easier for consumers to switch; there was precise use of theory and focus on context fully integrated to earn top Level 4 (14 KAA). Evaluation was then linked to the need to regulate to prevent consumers switching to unhealthy products and the need to quit to a Level 3 evaluation. The conclusion locks in Level 3 evaluation as it offers a substantiated judgement.



**ResultsPlus**

**Examiner Tip**

By carefully structuring your response it is easier to then offer a sophisticated approach to developing a coherent argument in depth and in context.

adv: ~~Consumers~~ efficient allocation

**EITHER**

(f) Evaluate the possible advantages of a free market approach to cigarette consumption.

(20)

**OR**

(g) Evaluate the impact of government intervention in the cigarette market.

(20)

Indicate which question you are answering by marking a cross in the box . If you change your mind, put a line through the box  and then indicate your new question with a cross .

Chosen question number:      Question 6(f)       Question 6(g)

Write your answer here:

Q. Free market economy is one whereby there is ~~minimal~~ no government intervention, and the market forces of supply and demand are allowed to operate freely. One advantage of a free market economy is that it allows an efficient allocation of resources through competition. If there are multiple tobacco companies offering similar products, they'd be incentivised to operate efficiently so that they can keep their costs as low as possible. By doing this, they can gain an advantage over ~~reduce~~ the price of their product, gaining an advantage over the competition.

However, the effects of this depend upon whether the companies truly pass on the decreased costs of production onto consumers. If, for example, multiple companies do ~~so get decrease~~ ~~keep the cost~~ don't pass on the decreased costs, there'd be no benefit to the consumer. Despite

Another advantage of the free market economy on tobacco consumption is that ~~consumers~~ there is full consumer sovereignty. If consumers choose to go for a cheaper alternative with, for example e-cigarettes, they this could incentivise companies to move to e-cigarette production instead. This means that the less people would be consuming the harmful effects of tobacco.

However, this depends upon how regulated e-cigarettes are. Extract B talks about how there are efforts to regulate the ~~e-cigarette~~ e-cigarette market. If it becomes too expensive for a consumer to purchase an e-cigarette over tobacco cigarette, they may simply ~~stay~~ stay with consuming tobacco cigarettes.



### ResultsPlus Examiner Comments

8 out of 20 marks awarded.

The candidate started with a clear definition and moved on to the first advantage of considering the incentives to firms. This was not explained carefully or in context but there was elements of knowledge and understanding to achieve low Level 2. They then go on to attempt to evaluate by saying the lower cost was not assessed on to consumers but the reason for this was not explained nor was there context, thus achieving a low Level 1 EV. The second advantage provided was consumer sovereignty but this seemed to build on the incentive argument for firms already covered although there was better context here, the response achieved a Level 2 KAA. The attempt to evaluate did not answer the question so was not awarded. Overall they achieved L2 KAA (6 marks) plus Level 1 evaluation (2 EV) = 8/20.



### ResultsPlus Examiner Tip

The structure is sound but it is essential to use theory and data to ensure you carefully explain it and link your evaluation back to the question.

## Question 6 (g)

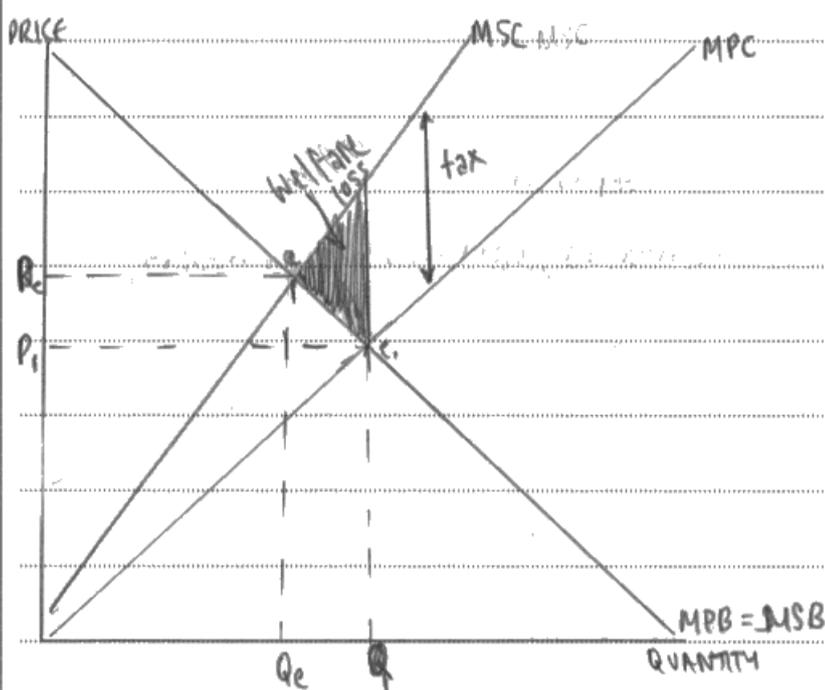
The question invited candidates to evaluate the impact of government intervention in the cigarette market. This was by far the most popular essay choice and the majority of candidates were able to explain policies and evaluate to a good level. There was much evidence in the data which gave candidates an opportunity to analyse and evaluate possible types of government intervention. Most frequently offered answers were taxation (although often not specified what tax), subsidies (whether of information or for e-cigarettes) and minimum pricing. The most able candidates explained the impact of taxing cigarettes and in most cases moved on to discuss the effects of a minimum price making effective use of mostly Extract A enabling them to access Level 3 and above. Some candidates considered bans in public spaces or subsidising e-cigarettes or nicotine patches. High Level awarding was available for those able to structure their answer and make effective use of the information and accurate well-labelled diagrams where appropriate. Tax and minimum price were usually applied diagrammatically and explained linking to effects on consumption, producer and consumer tax burden, surpluses and effects to consumers. A number of candidates confused minimum and maximum prices and also confused buffer stocks. There was clear differentiation in approach from basic diagrams showing a shift inwards in supply or a minimum price without the surplus identified to fully labelled and annotated diagrams. More candidates would benefit from fully explaining their diagrams. Often candidates illustrated an exkternal cost diagram but did not always succeed in linking it to the question set.

Evaluation was often critical of government intervention as ineffective given the price elasticity of demand in the short run or considered it as more effective in the long run if they had already used price inelasticity as part of their analysis typically on taxation. The other main methods of evaluation was considering the unintended consequences of encouraging the hidden economy and missing information on external costs to accurately impose a socially optimum tax. Top level evaluation made effective use of data discussing causes of government failure. Often evaluation was very narrowly focused on unintended consequences focusing on smuggling and thereby not enabling candidates to access Level 3e. Effective sustained judgement balanced government failure against the need for further research and reforms in government intervention and attempted to use positive economics to make the judgement call.

<b>EITHER</b>		
(f) Evaluate the possible advantages of a free market approach to cigarette consumption.		(20)
<b>OR</b>	<i>P: ↓ negative ex</i>	
(g) Evaluate the impact of government intervention in the cigarette market.	<i>↑ tax REV</i> <i>EV: Government failure / Unintended cons - BM</i>	(20)
<b>Indicate which question you are answering by marking a cross in the box <input checked="" type="checkbox"/>. If you change your mind, put a line through the box <input checked="" type="checkbox"/> and then indicate your new question with a cross <input checked="" type="checkbox"/>.</b>		
Chosen question number:	<b>Question 6(f) <input checked="" type="checkbox"/></b>	<b>Question 6(g) <input checked="" type="checkbox"/></b>
Write your answer here:		

Government intervention is when the government changes the law / intervenes in the free market to correct market failure. In the cigarette market the main form of government intervention is an ad valorem tax, which is a tax that is a percentage of the price for every unit.

Taxes are good as they can internalise the negative externalities <sup>& overconsumption of cigarettes</sup> caused by smoking cigarettes such as 'cancer' & '8 mil people dying'. This is because if the tax set is equal to the external costs, then the quantity demanded & supplied can be decreased to a socially efficient equilibrium. By increasing the tax on cigarettes to '10%', this decreased demand for the good as the prices increase. This therefore means that there are less people dying or getting cancer which reduces the strain on the NHS, so the government can be spent elsewhere such as on education. This also increases people's living standards so they can live healthier lives with reduced costs.



However, this would depend on the price elasticity of demand.

In the extract it states that a '10% tax' decreases tobacco consumption by 4% & '5%'. This shows that the PED must be inelastic, <sup>as it is  $-0.35$</sup>  increase as the ~~decrease~~ increase in tax decreases consumption by a less than proportional amount. Therefore if demand is inelastic, the tax will not have a great impact on consumption, so quantity demanded will not decrease by much & the negative externalities on health etc will remain.

Secondly, there will be tax revenue raised from the 10% tax on tobacco. This money could be hypothecated & used to subsidise e-cigarettes or used to advertise the negative externalities of smoking more so there is less incomplete information about smoking. This could help reduce demand for cigarettes which could decrease the welfare loss as it would bring the MPC closer to the MSC via the tax & the use of the tax revenue.

However, there could be government failure such as unintended consequences like black markets. The increase in price of cigarettes could cause consumers to go to black markets to buy them cheaper. This could decrease tax revenue for the government & could ~~also~~ also cause more harmful chemicals to be used in the black market cigarettes as there would be no regulation. This could cause worse health issues & cause increased costs for the NHS.

In conclusion, a tax may not be the most sufficient means of government intervention as it could cause black markets & may not work due to inelastic PED. However, this depends on, if the tax can raise enough revenue & reduce overconsumption of the cigarettes.



**ResultsPlus**

**Examiner Comments**

20 out of 20 marks awarded.

The candidate started by defining government intervention and decided to focus on the main form of intervention in the cigarette market, ad valorem tax. This was a valid approach as the question did not ask for different methods. The first impact they focused on was internalising the negative externality. The paragraph was well-structured, demonstrating a logical and coherent chain of reasoning in context to a Level 4 standard. The diagram was to a Level 2 standard as it would have been good to see the tax incidence correctly labelled, consideration of the burden and integrated into the answer. The evaluation though does link back to the effectiveness of the tax in internalising the externality in context to a Level 3 evaluation standard. The second impact considered was the use of the tax revenue being hypothecated to subsidise e-cigarettes and an educational campaign; there was precise use of theory and focus in context fully integrated to earn top Level 4 (14 KAA). Evaluation was then linked to the questioning of how much tax revenue would be raised due to the hidden economy and that the negative externalities could be larger due to unintended consequences of government failure (Level 3 EV). The conclusion locked in Level 3 evaluation as it offered a substantiated judgement focused on the effectiveness of the tax depends on how much tax revenue was raised.



**ResultsPlus**

**Examiner Tip**

By linking together precisely and coherently different concepts in context you are more likely to access top level marks in KAA and EV; this candidate exemplifies this.

**EITHER**

(f) Evaluate the possible advantages of a free market approach to cigarette consumption.

(20)

**OR**

(g) Evaluate the impact of government intervention in the cigarette market.

(20)

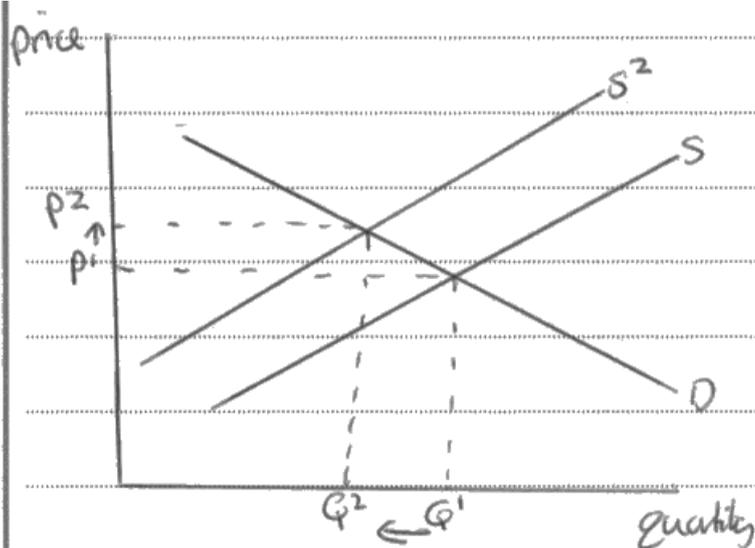
**Indicate which question you are answering by marking a cross in the box . If you change your mind, put a line through the box  and then indicate your new question with a cross .**

Chosen question number:      **Question 6(f)**       **Question 6(g)**

Write your answer here:

Government intervention is when the government intervenes into a market and they might ~~be~~ <sup>put</sup> a tax, subsidy or regulation into a product to either make it cheaper or make it more expensive so consumption is low.

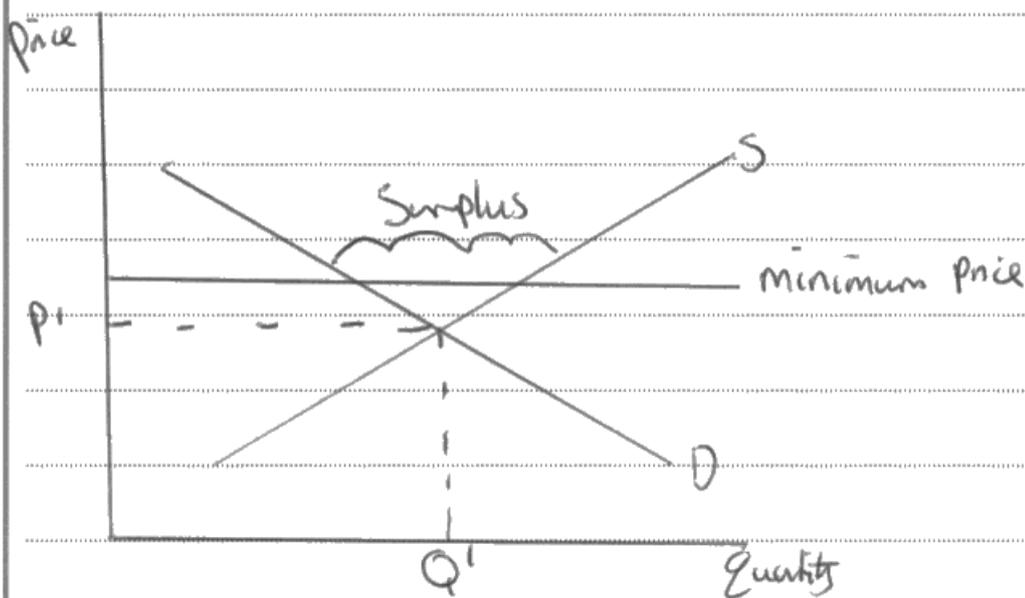
One way the government can intervene in the cigarette market is to put a tax on the cigarettes. This would mean that producing it would be more expensive for firms so they supply less. This would shift the supply curve left on the supply and demand diagram.



With the shift of the supply curve, this means that price would increase and quantity will fall.

However a problem with putting a tax on cigarettes would lead to smuggling. Smuggling is where people import a product illegally into a country. People would do import cigarettes from other countries as it would be much cheaper to do so than to buy it from the UK. This would then mean the government are losing out on money as they aren't getting the money from the cigarette in the UK as people are buying it ~~elsewhere~~ elsewhere.

Another way a government could intervene in the cigarette market is to place a minimum price on cigarettes. This means that firms have to sell their cigarettes at the minimum price or higher and this could persuade people not to buy it as it is expensive.



With the minimum price set up the firm has no choice but to raise their price to meet the minimum price.

However ~~there~~<sup>there</sup> can be a problem of setting up a minimum price as people might smuggle cigarettes into the UK as it would be much cheaper to do so. Also this could make the black market to arise as they could sell their cigarettes cheaper.

and people would go to them to buy it instead of buying it from firm. This would also mean that the government would miss out ~~of~~ on money as they won't get tax from the black market or the smuggled goods.

So in conclusion the government can intervene in the cigarette market so that consumption can be lowered as it has loads of negative externalities eg cancer which the NHS has to provide cure for, but with the government intervening they cause unintended consequences such as smuggling and the black market.



### ResultsPlus Examiner Comments

9 out of 20 marks awarded.

After defining government intervention the first impact considered was a basic analysis of supply shifting left and not in context, achieving Level 2 KAA. This was then evaluated well in considering how it could lead to smuggling and whilst it may access low Level 3 evaluation it lacked balance. Another government measure considered was a minimum price but the impact of reducing consumption was not integrated with the incomplete diagram, again achieving Level 2 KAA. Unfortunately the evaluation that then followed repeated the earlier point about smuggling so couldn't be awarded and became confused at the top of the last page. The conclusion mainly repeated earlier points but there was some application in considering cancer to possibly obtain Level 1. Overall the response achieved Level 2KAA and Level 3Ev – NB (Not Balanced) resulting in 5 & 4e = 9/20.



### ResultsPlus Examiner Tip

It is important you focus on the key part of the question, in this case the impact of government intervention rather than describing government policies. Ensure your diagrams are carefully labelled and integrated fully into your answers. Finally to avoid repetition a rough plan at the start can help.

## Paper summary

Based on candidate performance on this paper, the following advice is offered:

### Section A: multiple choice and short questions

- Practice timings for Section A with a sharp focus on concise applied 3-mark responses with linked development.
- Ensure you have revised the full specification for Theme 1 thoroughly, including the quantitative skills.
- Accurately define or if possible illustrate the key economic term(s) used in each question, for example, excess supply and excess demand.
- Be prepared to annotate the diagrams presented in the questions, for example, new equilibria points in Q3(c).
- Be prepared to draw diagrams when relevant to the question and make sure these are properly labelled and explained in the text, for example, changes in excess supply in Q4(a) or lower maximum price or just maximum price diagram in Q5(a).
- Always refer to the information provided or data you have manipulated for example, opportunity cost data shows one is small compared to gains made in Q1(a) or more affordable higher education places extending candidate demand in Q5(a).
- Read the question carefully, for example, using marginal analysis in Q1(a).
- Best practice is to show the workings involved in calculation questions as marks are available for this, for example Q2(b), but make sure your overall answer is clear.

### Section B: data response questions

- Ensure diagrams are accurately drawn and used to answer the questions set. For example, in answering 6(a) the revenue and its change was sometimes ignored despite it being central to the question. By focusing on fully labelled diagrams this will encourage candidates to draw Level 3 diagrams which when fully explained in context may access Level 3 responses as in 6(g).
- Focus on logical chains of reasoning that explain your knowledge and evaluation whilst applying theory and data in the levels-based questions. Quite often candidates move from definitions and a brief explanation of an economic issue straight into thin evaluation or provide a long list of points each evaluated in turn but lacking coherence and depth. This, and a lack of structure was mostly evident in the essays and may be due to time constraints. The need to practice full papers under timed conditions is essential in planning schemes of work.
- The 10 mark questions may be answered by one substantial point fully explained in context and then one linked substantial piece of evaluation, depending on the question set.
- Offer continuous judgement making extensive use of positive economics as you respond to the essay-based optional question.
- Clearly identify which essay you have chosen by placing a cross in the correct box.

## Grade Boundaries

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

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

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