Examiners' Report

June 2014

GCE Economics 6EC01 01

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Introduction

Overall, the paper was well received and it was pleasing to note a good standard of responses. This reflects improved use of diagrammatic analysis. There were a significant number of superior answers which scored very high marks, particularly in the supported choice section of the paper. Very few candidates struggled to answer at least some of the questions on the paper. However, there is scope for improvement through applying answers to the context of the question.

Most candidates completed the paper in the time available though some struggled to develop their answers for the very last question. It is important to practise past unit 1 papers under timed conditions to strengthen exam skills. The performance on individual questions is considered in the next section of the report and there are two examples of candidate work for each one. These examples act as a guide as to why a question was well answered and also on how to improve further.

Section A: supported multiple choice questions

Most candidates found this method of testing highly accessible. The mean score for the supported multiple choice questions continued on its upward trend. The June 2014 score was 24 out of a total of 32 marks (compared 23 marks in June 2013). This appears to reflect greater use of relevant diagrammatic analysis to support answers, particularly for Q1 (scarcity and opportunity cost), Q3 (falling price of black tea), Q4 (cross elasticity of demand for motor vehicles and petrol) and Q6 (price elasticity of supply for coffee).

The key to success involves defining the main concept(s) in the question (awarded 1 or 2 marks) and applying appropriate economic theory and analysis (usually awarded up to 2 marks). Annotation of diagrams is always a good strategy, for example, Q7 (imposition of a sales tax) and Q8 (buffer stocks scheme). Marks are made available for using the diagrams to answer the question.

The foundation of this paper is an understanding of the price mechanism model and its limitations. Any suitable opportunity to apply the model should be taken. In order to maximise candidate performance it is possible to achieve the full 3 explanation marks even when an incorrect option is selected. This occasionally arose, particularly Q5 (income elasticity of demand for fish in Cyprus and the Maldives).

Some candidates gained marks by using the rejection technique. Up to 3 marks are available for successfully eliminating 3 incorrect options (provided that three separate reasons are offered). There seemed to be an improvement in the use of the rejection technique compared to previous examination series, although a simple reversal of an incorrect option is insufficient to gain a mark. It requires candidates to explicitly state the option key being rejected and then to offer an appropriate explanation. Unfortunately, some candidates still fail to identify the incorrect option key and so the examiner may not be aware that the rejection technique is being offered. Several examples of how to successfully eliminate incorrect options are provided in the candidate responses shown in the report. A certain skill is required for this and it is important to practise the technique. As mentioned earlier, marks are not awarded for responses that simply reverse the incorrect option sentence without further explanation. Some value must be added to the answer.

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

Section B: data response questions

The data response questions 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. A 14 mark question comprises 6 evaluation marks (2+2+2) and a 12 or 10 mark question comprises 4 evaluation marks (2+2). An 8 or 6 mark question includes 2 evaluation marks. Attention should be directed to the quality of written communication (QWC), especially in those questions identified by an asterisk in the question paper. Here, candidates should attempt to develop a coherent argument and take into account grammar and presentation.

Although no explicit marks are awarded for QWC, it forms part of the overall impression that examiners take into account when awarding marks. Both data response questions were accessible to candidates. Question 10 (Tobacco consumption in Britain) was a more popular choice with most candidates selecting this, compared to Q9 (Proposals for a tidal barrage in the Severn Estuary). A higher mean score was recorded for Q10. This was partly due to a significant difference in the quality of answers for Q10(c) and Q9(c). In the former many responses offered suitable analysis and application to tobacco smoking, discussing its price elasticity of demand. In the latter, many responses struggled to offer suitable diagrammatic analysis of how the tidal barrage might affect the production possibility frontier.

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

Question 1

Most candidates achieved a mark for defining opportunity cost and some responses developed this by application to a diagram of a production possibility frontier, securing a further mark. Many answers also gained credit by offering an example of opportunity cost for either consumers, producers or the government. However, relatively few responses explained the meaning of scarcity in terms of finite resources in comparison to unlimited human wants. It appears that a significant number of candidates did not recognise the nature of the basic economic problem.

Opportunity cost is the benefits of the next best alternative foregone. Opportunity costs arise because there are unlimited wants in the economy and only a limited amount of resources. This means in order to produce one good you will have to give up resources and factors of production for the other goods.

In this example in order to produce 70 units of capital goods you need to give up 30 units of consumer goods. This is why we have a basic economic problem of what to produce, to whom to produce it for and how. The answer can not be B because there is reason resources are infinite not the goods or services

Examiner Comments

This answer achieved 4 out of 4 marks. Correct option B (1 mark).

A definition of opportunity cost (1 mark) is supported with an explanation of scarcity (1 mark). The basic economic problem is applied and explained with the use of figures to a production possibility frontier (1+1 marks). Note a maximum of 3 explanation marks are available. The candidate intends to offer a rejection of option C but mistakes this for option B. This is ignored as there is positive marking throughout.

Examiner Tip

Be prepared to use a diagram to explain an economic concept. However, this must be explained properly. In this question no marks were awarded for just drawing a production possibility frontier without explanation. The best answers made accurate use of figures.

> Opportunity Cost is the value of the next best alternative foregone. scarcity is finite resources which are not enough to fullfill the demand infinite wants. An economy has a certain capacity to produce goods so it has to allocate resources to those with the highest demand, which has an opportunity cost of those resources being used to produce something else.

Question 2

Most candidates achieved a mark for explaining the division of labour. This was often supported with a reason why division of labour will increase productivity, for example, repetition in production enables the task to be done more quickly and to a higher quality, or less time wasted moving between tasks, or more effective use of capital. These points were awarded one or two marks. However, the main limitation was the lack of application to construction of new houses. Very few responses attempted to explain the types of specialist labour in constructing a house such as brick layers, tilers, electricians and painter and decorators.

division of labour is a form of specialisation where work is split up into smaller & individual task for workes, often based on expertise. If each worker is assigned an individual task such as bricklaying or painting they will become more efficient and skilled in that task, thus becoming more productive, and producing more output worker. This increase in productivity may also come because less time is wasted by workes, moving from different jobs.

ResultsPlus
Examiner Comments

This answer achieved 4 out of 4 marks.

Correct option A (1 mark). A definition of division of labour (1 mark) is supported with examples applied to house building such as bricklayers and painters (1 mark). Recognition that workers become more efficient and skilled at a particular task and so increasing productivity is awarded (1 mark). This is supported with the idea that less time is wasted for workers moving between different jobs.

ResultsPlus
Examiner Tip

Apply to the context of the question, that is, refer to the types of specialisation of labour in house construction and why this increases productivity.

Division of labour is splitting up the
processes of making a good/service ∧ and *into stages*
asigning each works a different
stage.
If each person is asigned a stage they
are only focusing on one thing so
they become skilled in that area
and produce more, quicker so the
output per person is increased

Question 3

The question on the cause of falling black tea prices proved highly accessible to the vast majority of candidates. It recorded the highest mean score of all the supported choice questions in the paper. Almost sixty per cent achieved full marks. Most responses included a diagram depicting an increase in the supply curve and lower equilibrium price. Explicit use of the price data from the graph provided was characteristic of the best responses.

The graph shows the price of tea between October 2012 and February 2013.
(You may use a demand and supply diagram in your answer.)

A possible cause of this fall in the price of tea is   P↓

(1)

A   an increase in the wages of tea growers

B   an increase in the price of coffee P↑

C   a larger tea harvest than expected

D   a decrease in the price of sugar

Answer   C

Explanation (3)
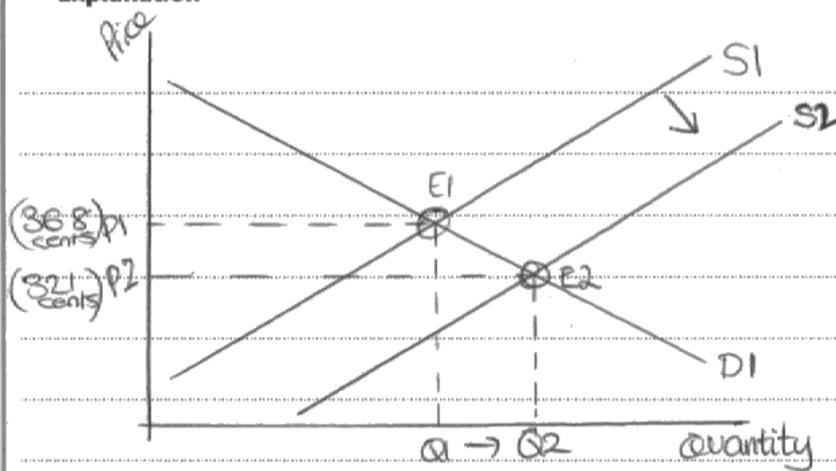
When there's a larger tea harvest then expected, supply will increase S1 to S2. And this relates to how price will decrease (P1 to P2). Therefore as demand increases, the tea will still be bought. However when ~~tea~~ coffee increases, coffee's substitute this will mean demand of tea ~~at~~ increases, so then price would increase rather than decrease, therefore Option B is incorrect. The large harvest could be due to an increase in technology.

This answer achieved 4 out of 4 marks.

Correct option C (1 mark). A relevant diagram is offered which shows an increase in supply and a lower equilibrium price (1+1 marks). Explicit reference to the price figures from the graph (where the price of tea has fallen from 368 cents to 321 cents per kilogram) (1 mark). 1 mark could also be awarded for rejection of option B where the candidate mentions that coffee and tea are substitutes (so an increase in the price of coffee would lead to an increase in the demand and price for tea) (1 mark). Note a maximum of 3 explanation marks are available.

A an increase in the wages of tea growers

B an increase in the price of coffee

C a larger tea harvest than expected

D a decrease in the price of sugar

Answer ☐ C

Explanation

(3)
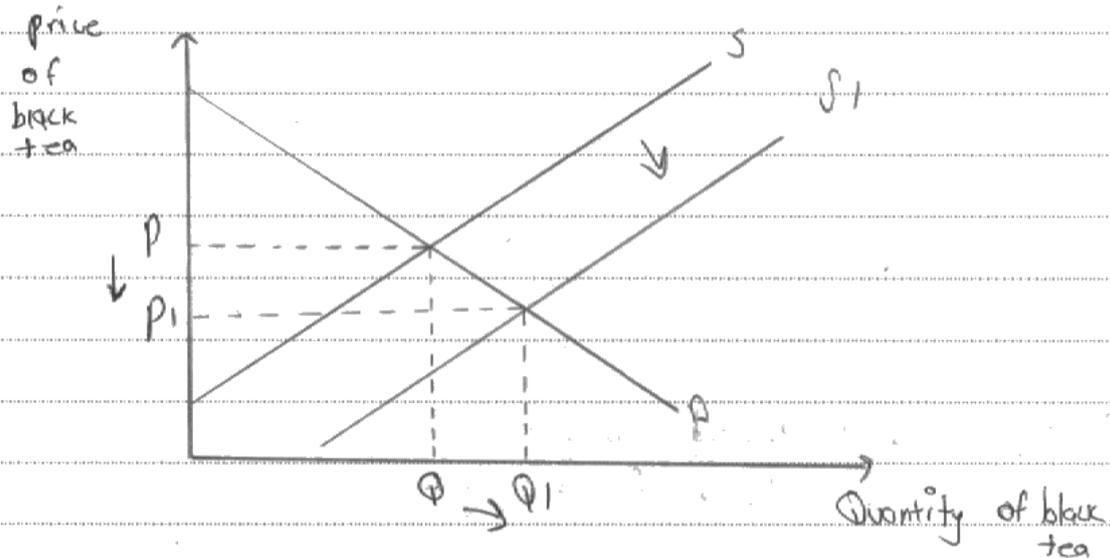
A larger tea harvest means that supply will increase from S to S₁ leading to increase in Quantity supplied from Q to Q₁ and decrease in price from p to p₁.

Question 4

This was another high scoring question where two thirds of candidates achieved full marks. The most common method of doing this was to define cross elasticity of demand (XED), explain that complementary goods have a negative XED and then apply directly to motor vehicles and petrol. The rejection technique was also successfully used here, revealing the incorrect options to be either substitutes with a positive XED or non-related with a zero XED.

Answer C

Explanation (3)

Cross elasticity of demand is the responsiveness of demand for good A to a change in price for good B.

Motor vehicles and petrol are close complements therefore their cross elasticity of demand is negative as the price of vehicles ~~goes up~~ *increases*, quantity demanded of petrol decreases.

Option D is incorrect as bus transport and taxi services are substitutes therefore their cross elasticity of demand is likely to be positive, as price for buses increase, quantity demanded for taxis increase.

ResultsPlus
Examiner Comments

This answer achieved 4 out of 4 marks.

Correct option C (1 mark). A definition of XED (1 mark) is supported with an explanation that motor vehicles and petrol are complementary goods (and so they have a negative XED) (1 mark). This is followed by application to a price increase of motor vehicles leading to a fall in demand for petrol (1 mark). A sound example of how to reject an incorrect option is then offered (1 mark). Note a maximum of 3 explanation marks are available.

ResultsPlus
Examiner Tip

Always state the incorrect option key when using the rejection technique as the candidate has done in this case (option D).

Answer C

Explanation (3)

XED is worked out by

$\frac{\text{% Change in quantity demanded for good A}}{\text{% Change in price of good B}}$

When XED is negative, the two goods are compliments. Therefore motor vehicles and petrol are ~~good through~~ compliments.

Question 5

The question on income elasticity of demand (YED) was well answered and just over one third achieved maximum marks. Most candidates defined YED and proceeded to distinguish between inelastic and elastic demand. Many responses achieved a mark by rejecting option C explaining that cereals are an inferior good in Cyprus. However, a surprising number of candidates selected incorrect option B and appeared to misinterpret the meaning of a zero income elasticity of demand for oils and fats.

Answer A

$$YED = \frac{\% \, Qd}{\% \, Y}$$

Explanation

(3)

The income elasticity of demand (YED) measures the responsiveness of quantity demanded to a change in income.

The demand for fish is income inelastic for both countries as the YED is positive and less than 1 (0.37, 0.64)

Option C is incorrect as the cereals are inferior Good in Cyprus (negative YED) and a normal good in Maldives (positive YED).

ResultsPlus Examiner Comments

This answer achieved 4 out of 4 marks.

Correct option A (1 mark). A correct definition of income elasticity of demand is given (1 mark) (despite the formula being incorrect). This is followed by an explanation that a YED of less than 1 is inelastic, with application to fish in both Cyprus and the Maldives (1 mark). Finally, option C is rejected, since a negative YED means that cereals are an inferior good for people in Cyprus whereas a positive YED means that cereals are a normal good for people in the Maldives (1 mark).

ResultsPlus Examiner Tip

Read each option statement very carefully. Some candidates confused 'income inelastic' with 'income elastic' for incorrect option B.

Answer   [A]

Explanation

(3)

Income Elasticity of Demand (YED) is the responsiveness of demand to a change in income.

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

The demand for fish is income inelastic because both values are between 0 and 1. This is because fish is a necessity good and they will buy it regardless of their income

ResultsPlus
Examiner Comments

This answer achieved 3 out of 4 marks.

Correct option A (1 mark). A definition and correct formula for income elasticity of demand is provided (1 mark). Note that only one of these is required to secure the mark available. This is supported by an outline of fish being income inelastic for both countries as their values lie between 0 and 1 (1 mark). The answer is too brief.

ResultsPlus
Examiner Tip

Consider how the three explanation marks can be gained in your answer. It is clear a further point is required to secure full marks, for example, numerical application: a ten per cent rise in incomes would lead to a 3.7 per cent rise in demand for fish in Cyprus and a 6.4 per cent rise in demand for fish in the Maldives.

Question 6

A straightforward question for most candidates, with almost sixty per cent achieving full marks. Many answers tended to be brief but yet still achieved top marks, simply by showing the formula for price elasticity of supply, calculating its value for coffee in Uganda and then explaining the result in terms of inelasticity. However, a common error was for some responses to confuse price elasticity of supply with that of price elasticity of demand. It is important to read the question very carefully to avoid such mistakes.

Answer [D]

Explanation   (3)

$$PES = \frac{\% \Delta \text{ supply}}{\% \Delta \text{ in price}}$$

$$PES = \frac{33}{100}$$

$$PES = 0.33$$

This means it is price inelastic as PES<1 and the change in price is greater than change in supply.

It would not be c as unit elastic PES would have to equal 1 and it doesn't.

ResultsPlus
Examiner Comments

This answer achieved 4 out of 4 marks.

Correct option D (1 mark). The correct formula (1 mark) is followed by a correct calculation of price elasticity of supply of coffee (1 mark). An explanation of inelastic supply is then offered (since PES of 0.33 is less than 1) (1 mark).

ResultsPlus
Examiner Tip

Be prepared to conduct calculations when suitable figures are involved in the question. In this case it is a quick way of scoring a mark.

Answer D

Explanation

(3)

Price elasticity of demand refers to a change in quantity demanded due to a change in price. Since demand has only increased by 33% which is less than proportionally to the change 100% change in price, the demand is price inelastic.

Key 'B' is incorrect as if the PED was price elastic the demand would have increased more than proportionately to the 100% change in price

Question 7

The question on the effects of an increase in sales tax on clothing offered candidates an opportunity to annotate the correct diagram from a choice of four. The best answers showed the area of tax revenue, an increase in equilibrium price and a decrease in equilibrium output. Almost fifty per cent achieved full marks. However, a significant minority of responses confused a percentage sales tax with that of a specific tax and so selected incorrect option D.
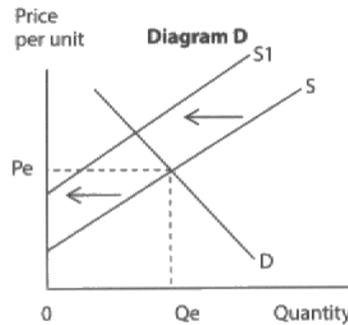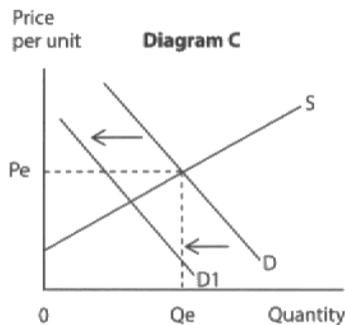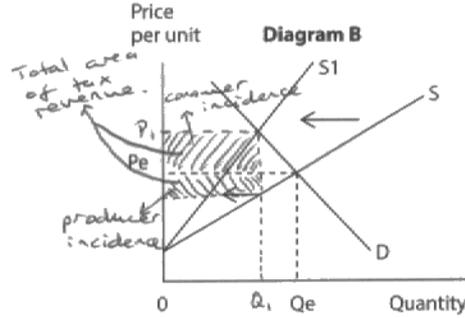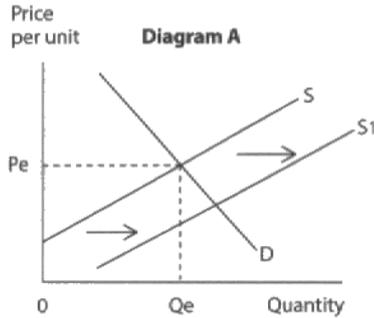
In September 2012 the Spanish Government increased the sales tax (VAT) on goods such as clothing to 21%. Which of the diagrams, labelled **A, B, C** and **D**, best illustrates the effects of the increase in sales tax? (You may annotate the relevant diagram in your answer.)

Answer   B

(1)

An indirect tax is a tax on expenditure. VAT is a tax paid as a percentage of the price of a good, per unit produced each unit. It causes a pivotal shift in the supply curve as it increases costs of production (by more and more along the curve). It increases the price of clothing, and decreases quantity demanded. A is incorrect as it shows the effect of a subsidy. D is incorrect as it shows the effect of a flate rate tax, e.g. tax on alcohol.

This answer achieved 4 out of 4 marks.

Correct option B (1 mark). Annotation of diagram B depicting the new price and output equilibrium for clothing (1 mark) as well as the tax area (1 mark) offered an excellent start to the answer. This is followed by an explanation of the 21% sales tax being an example an ad valorem tax causing a pivotal shift in the supply curve (1 mark), and, acting like an increase in costs of production (1 mark). Despite already obtaining full marks, the candidate successfully rejects option A showing the effects of a subsidy (1 mark) and then option D showing the effects of a flat rate tax (1 mark).

Be prepared to annotate diagram(s) offered in questions. There are always marks to be gained here.
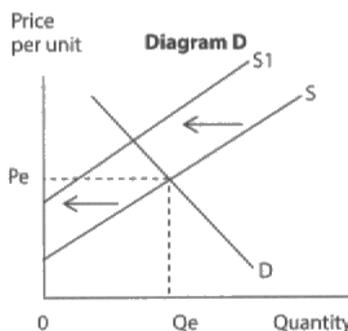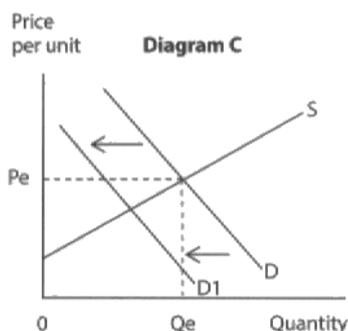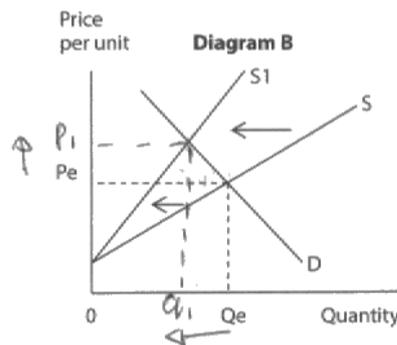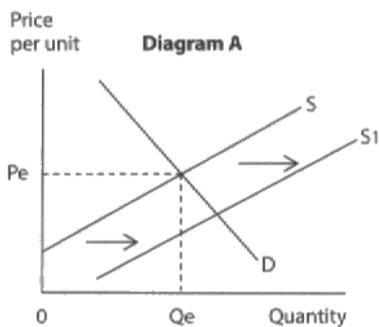
In September 2012 the Spanish Government increased the sales tax (VAT) on goods such as clothing to 21%. Which of the diagrams, labelled **A**, **B**, **C** and **D**, best illustrates the effects of the increase in sales tax? (You may annotate the relevant diagram in your answer.)

Answer   B

(1)

Ad valorem tax is a percentage imposed on good to increase its price. It is a type of indirect tax. The increase in the sales tax causes the price per unit to increase. It also decreases quantity supplied as this tax affects producers so they produce less.
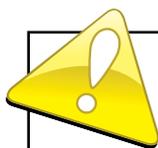
Question 8

The best answers annotated the diagram in the question by identifying the quantity which has to be purchased by the agency (YZ) in order to ensure price does not fall below P1. Further development included showing the area of agency expenditure and identifying the equilibrium price without intervention. The definition of a buffer stock required reference to buying surplus stock in times of a good harvest and selling the stock in times of a poor harvest to reduce fluctuations in producer income. It is not sufficient to simply repeat the statement in the question about limiting price fluctuations between P1 and P2. Around thirty per cent achieved the 4 marks available and another thirty per cent gained 3 marks.
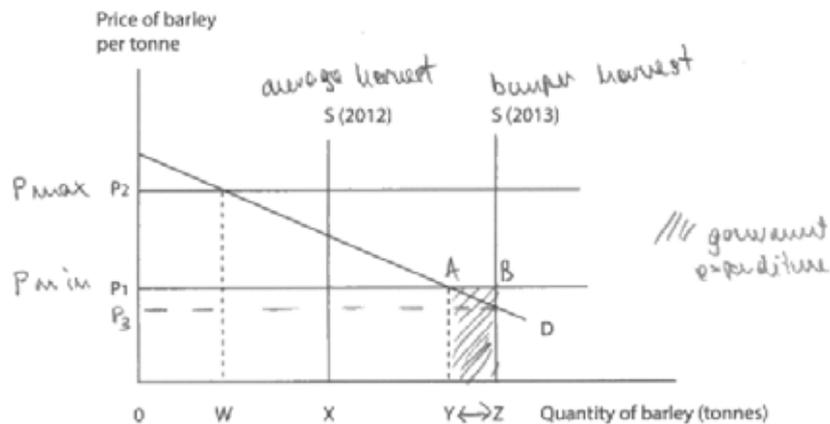
Price of barley per tonne

average harvest — S (2012)
bumper harvest — S (2013)

//// government expenditure

The diagram shows the operation of a buffer stock scheme in the barley market where a government agency intervenes to ensure the price remains between P1 and P2. (You may annotate the diagram in your answer.)

The 2013 harvest led to

(1)

A an excess demand for barley

B the government agency selling barley from its stockpile

C price increasing to P_2

D the government agency buying barley and adding to its stockpile

Answer [D]

A buffer stock scheme is when our gov agency buys commodity stocks in a bumper harvest & sells them in a poor harvest to stabilise producer income.

Without government intervention the price would fall to P_3.

But the government buys YZ tonnes of barley, adding to its stockpile, increasing the price to P_1.

Government expenditure =

~~Option C is false~~

Examiner Comments

This answer achieved 4 out of 4 marks.

Correct option D (1 mark). Explanation of buffer stock scheme (an agency buys up the commodity when there is a good harvest and sells it when there is a poor harvest in order to reduce price fluctuations and stabilise produce incomes) (1 mark). Without intervention price falls to P3 (shown on graph) (1 mark). The agency buys YZ in order to ensure price does not fall below P1 (1 mark). Annotation of diagram to show the area of total government expenditure (ABYZ) on the commodity in order to prevent price falling below P1 (1 mark). Note a maximum of 3 explanation marks is available.

Price of barley
per tonne

S (2012)   S (2013)

P2   max price
                    government buy this
                    quantity of barley
P1   min price
                              D

0   W   X   Y   Z   Quantity of barley (tonnes)

The diagram shows the operation of a buffer stock scheme in the barley market where a government agency intervenes to ensure the price remains between P1 and P2. (You may annotate the diagram in your answer.)

The 2013 harvest led to

(1)

A   an excess demand for barley

B   the government agency selling barley from its stockpile

C   price increasing to P_2

D   the government agency buying barley and adding to its stockpile

Answer   D

A buffer stock sheme is when the government
buy crops from farmers in years of good yeild, and
sell it back in y store it, then sell it back in years
of bad yeild.

The government by up the quantity Y-Z of
barley at price P₁. this is to correct the excess
supply.

This answer achieved 3 out of 4 marks.

Correct option D (1 mark). Explanation of a buffer stock scheme (1 mark). Identification that the government agency would buy up YZ of barley at price P1 (1 mark). Annotation of the diagram needs to show the area of agency expenditure to secure a mark here.

Annotate diagrams carefully and offer a brief explanation.

Question 9 (a)

The question on explaining two reasons why the UK government has a renewable energy target differentiated effectively between candidates and around half achieved 3 or 4 marks. Only six per cent gained the full 6 marks available. The best responses focused on two reasons and developed each of them rather than just repeating information within the extract.

> One reason is that traditional power generation methods such as coal and oil require scarce resources which are expected to run out within 50 years. Therefore the UK is trying to become more reliant on sustainable, renewable resources (resources which can be used today without affecting those of future generations) to ensure that there is not blackouts of energy scarcity for future generations.
>
> Another reason is due to pressure from the EU to become more eco 'friendly'. The Emissions trading scheme was set up in 2005, and requires and puts regulations on the production on harmful emissions such as Carbon. By investing in renewable sources, the UK reduces its Carbon emissions and has to buy less pollution permits which is beneficial to UK industry.

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Examiner Comments

6 out of 6 marks awarded. The response is split into two paragraphs and easy to mark. The first reason is because of traditional power generation methods use coal and oil which are expected to run out within 50 years (1 mark) and so the objective is to use more sustainable resources to prevent energy blackouts (1 mark). A definition of renewable resources is offered (1 mark).

The second reason is to reduce harmful carbon emissions and become more 'eco friendly' (1 mark). This is developed by referring to the EU emissions trading scheme which has put pressure on the government to reduce carbon pollution in their respective countries through encouraging investment in renewable energy schemes (1 mark). Otherwise more pollution permits have to be purchased by UK industry (1 mark). This is an answer which offers development.

The government wants to increase renewable energy by 20%. in order to diversify UK's current energy supply which relies heavily on gas and coal. This would allow for UK to still have enough energy even if gas and coal reserves deplete and run out.

Also, renewable does not give off any harmful emissions and is 'carbon neutral' once complete. This means that there would be no environmental damage or carbon dioxide released into the atmosphere.

Question 9 (b)

This question required candidates to explain how the £34 billion tidal barrage project would be funded, bearing in mind that no government subsidy is being offered. Almost forty-five percent of answers gained just 2 out of the 4 marks available. Typical responses just mentioned that overseas investors would fund construction and then pass on these costs to consumers through higher prices. Little development was offered. One way to gain further marks is to consider the price elasticity of demand for energy. For example. it is likely to be inelastic and so an increase in energy prices will raise total revenue and profits. Another way of developing answers used by some candidates is to explain how the returns from the capital outlay will be for at least 120 years. It is a long term investment project leading to long term profits.

> A Subsidy is a grant that a government gives to firms to promote growth and investment. The Scheme can proceed without are as the investors are from overseas and can recoup the cost by charging higher prices in order to cover such costs. Moreover, incentives such as tax breaks could encourage firms to invest as this it would be an added cost being waived. Also, the offer the investors is attractive as the proposed barrage is the world's second largest tidal wave at 14 meters

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Examiner Comments

4 out of 4 marks awarded. An explanation of a subsidy (in the context of the tidal barrage) (1 mark) is followed by indicating that overseas investors will fund the project (1 mark) and recover their costs through charging higher prices to consumers (1 mark). Further development is offered by suggesting incentives such as tax breaks may make the tidal barrage an attractive investment proposition (1 mark).

ResultsPlus
Examiner Tip

Make use of the information in the extract but also try and develop further. It is important to add value to the information rather than just repeat sentences from the extract.

a subsidy is a grant given to firms from the government to reduce production costs and increase output.

The start up costs and administrative costs will be funded by overseas investors meaning no UK subsidy is needed.

The costs of sustaining the barrage will be borne by consumers who will suffer higher prices for the electricity to cover the higher costs of production.

ResultsPlus
Examiner Comments

3 out of 4 marks awarded. Definition of subsidy (1 mark). Overseas investors will fund project (1 mark) and pass on these costs to consumers though higher electricity prices (1 mark).

ResultsPlus
Examiner Tip

Be prepared to develop points from the extract further, for example, the tidal barrage will generate a return for at least 120 years and so could prove to be highly profitable.

Question 9 (c)

The question invited candidates to examine the possible impact of constructing the tidal barrier on the UK production possibility frontier, using diagrammatic analysis. It proved to be a good way of differentiating between candidate responses. The best answers offered a correctly labelled diagram of the production possibility frontier shifting outwards and then proceeded to both analyse and evaluate the likely effects. However, a significant number of candidates struggled to draw a simple production possibility frontier diagram and consider how output is likely to increase. Some ten per cent recorded zero marks.

The Production Possibility Frontier (PPF) is a diagram to show the maximum level of output is a whole economies resources are fully utilised.
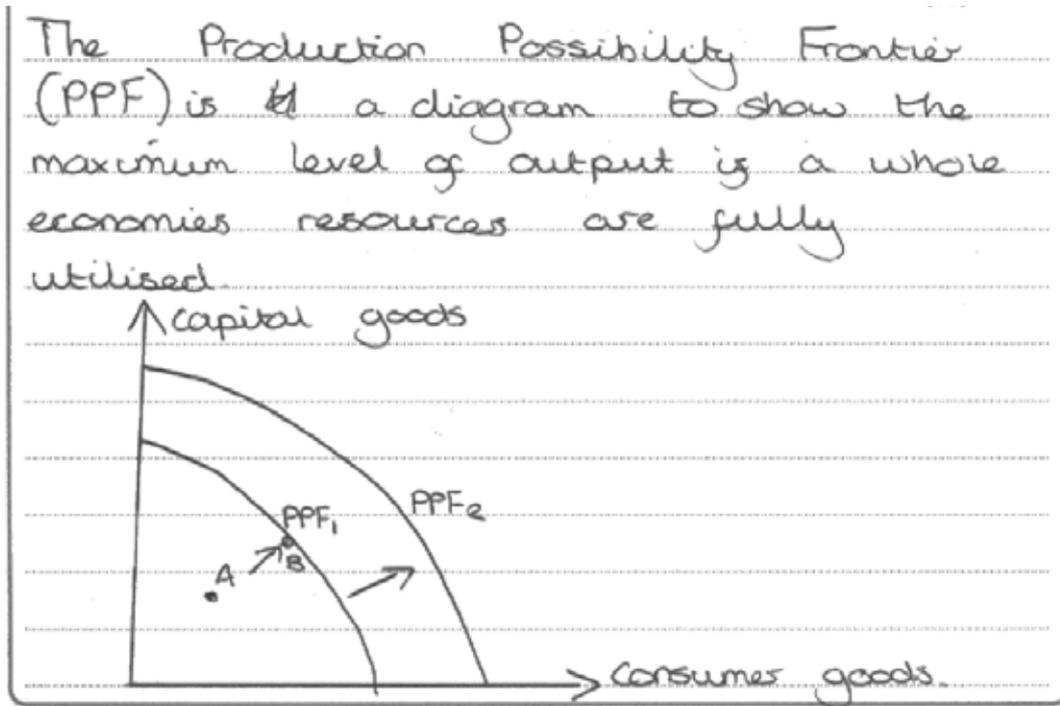
An investment from overseas investors will bring new capital and enterprise into the UK economy. This ~~debt~~ leads to more construction materials and capital including the factory at Port Talbut to build 200 new turbines. This leads to a shift outwards in the PPF curve resulting in an increase in real output of consumer goods which in this case is energy; supplying up to 5% of UK energy. This in turn leads to economic growth.

However, since the investment is coming from overseas investors, the £34 billion which entered the UK economy may simply leave the UK economy when consumers start paying for the energy and it will leave the UK economy back to overseas firms. So the UK may not see much of the growth in the long run.

It could be said that the UK economy was operating at below full capacity in terms of the PPF curve. This includes unemployment and land and capital not being fully utilised. For example, the project claims it will create '30,000 local jobs', and this industry could massively reduce the unemployment rates in the local area shifting the PPF curve to full capacity from A to B on the diagram.

However, the people in the area may not have the skills in the construction industry and training them may be too expensive. Therefore occupational immobility is involved and so labour may come from around the UK with better skills and the local area may not see much of the investment.

10 out of 10 marks awarded. The definition of a production possibility frontier (1 mark) is followed by a suitably labelled diagram shifting the curve outwards (2 marks). This shift is explained by overseas investment funding the construction of the barrage (1 mark) including the factory at Port Talbot to build the turbines (1 mark). A link is also made over how the tidal barrage could generate up to 5% of UK energy needs and so facilitate economic growth (1 mark).

Evaluation comes through discussion of the implications of overseas investment and how consumer payments for the electricity might flow out of the economy and so undermine long term growth (2 marks). Finally, on the last page, there is discussion on whether the production possibility frontier would shift outwards since the economy could have been below full capacity; the effects of the tidal barrage might simply be to move the economy from point A to point B rather than shift the curve outwards (2 marks).

Practise drawing the diagrams associated with this unit, including correct labelling of the axes.

A PPF is the maximum potential output that a combination of two goods or services can achieve in an economy when all resources are fully and efficiently employed.
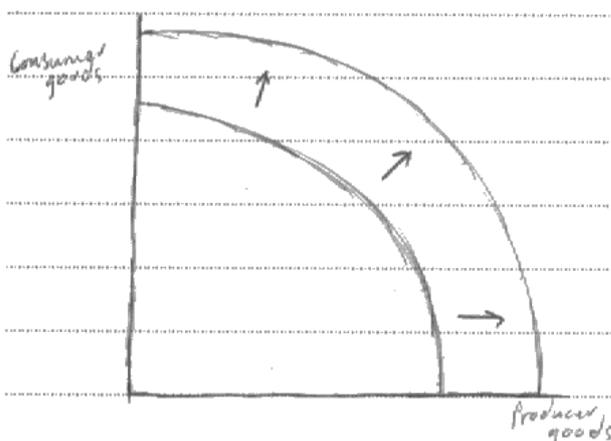
If the tidal barrage is constructed, the amount of electricity the UK can produce increases. This shifts the curve outwards.

An outward shift in the PPF indicates economic growth.

This growth is further supported by the fact that 30,000 new jobs are created, thus leading to an increased amount of consumption, and decreased unemployment.

The improved infrastructure from the building works will lower costs of production for firms, which will increase productivity and potentially increase output. This will further shift the PPF outwards.

ResultsPlus
Examiner Comments

5 out of 10 marks awarded. A definition of the production possibility frontier (1 mark) is supported with a relevant diagram shifting it outwards (2 marks). An outline of how economic growth is likely to be achieved from an improved infrastructure, possibly lowering costs of production and creating 30 000 jobs was also awarded (2 marks). Note, it is important to link the creation of jobs to an improved (transport / power generation) infrastructure to secure marks. On balance, 5 marks is correct here.
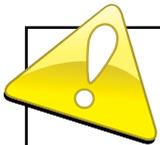
ResultsPlus
Examiner Tip

Be prepared to offer evaluative comments on high mark base questions. This candidate made no attempt to evaluate and so was automatically restricted to a maximum of 6 marks. Take careful note of the instruction in the question to 'examine' the possible impact.

Question 9 (d)

The question invited candidates to discuss the factors which might influence the supply of labour for constructing the tidal barrage scheme. It differentiated effectively between the quality of responses. Unfortunately, less than fifty percent of candidates gained half marks or more. Just over ten percent of responses obtained zero marks, often due to confusing the determinants of supply of labour with the demand for labour. Another limitation was the failure to apply labour supply determinants to construction of the tidal barrage project.

However, there were some excellent answers which applied the standard determinants of the supply of labour to the tidal barrage followed by some evaluative comments. The most common supply determinants discussed include the wage rate, net advantages of the work, net migration, income tax rates, benefits rates, availability of suitable housing and finally the level of skills, qualifications and work experience. Evaluation usually came in the form of government measures to increase the occupational and geographical mobility of labour but little else.

* (d) Discuss factors which might influence the supply of labour for constructing the tidal barrage scheme.   8 + 6   skills
geography
wage rate
labour costs
(14)

Supply of labour is defined as the amount of labour that can be supplied at a given wage in a given time period. There are various things that could influence the supply of labour. For instance, fundamentally the supply is influenced by the amount of workers that possess the correct skills in order to build the barrage, this could include things such as engineering degrees etc, if there are not enough people who possess the needed skills then ~~then~~ there will be a shortage of supply. ~~There~~ The influence of geographical mobility is also present, as if workers are unable or unwilling to relocate to the area in order to take a up these jobs then again there will be a shortage of supply. ~~(On the side a~~

On the side of the producers, wage costs and other labour costs

are a significant influence on the
supply of)

Wage rates and other perks
of the job are another influence,
for instance higher wage rates
will increase the labour supply,
as will things such as insurance
and pension plans given by the
employer and also job security, (after the scheme has been concluded)
these things will increase the desirability
of the jobs and thus labour supply
will increase.

Other government regulation like benefit
reform and lowering income tax will
also increase labour supply due
to their being more incentive to
work as real incomes increase
and the opportunity cost of not
working increases.

In regards to the problems facing
the labour supply there are
methods of fixing the occupational
and geographical immobility for
instance the government could
invest in the training of
workers so that they possess

the necessary skills to take up the jobs. Providing more access to student loans and lower tuition fees will also encourage younger people to study the skills needed, however this is a long term solution, as it takes 3-4 years to complete ~~roles~~ higher education, and therefore is not a useful solution in regards to ~~to~~ labour supply for this scheme. Geographical immobility can be solved through policies such as the reduction of stamp duty in order to make the move financially easier for potential labour. Increasing housing subsidies for the group of people who could take up the jobs would also encourage them to move. A final method of increasing geographical mobility is perhaps creating housing specifically for the workers of this scheme, that are affordable so that they are more willing to move to the area to work on the barrage, ~~things such as~~ ~~council~~

12 out of 14 marks achieved. All 8 knowledge, application and analysis marks were gained: definition of supply of labour linked to the wage rate (1 mark); the relationship between an increase in the wage rate and how it offers greater incentive to work (1 mark); the importance of net advantages or perks such as insurance, pension plans and job security (2 marks); reference to geographical mobility and the ability of labour to relocate to the area (1 mark); consideration of government regulation such as benefit reform and lowering income tax rates and how they affect the incentive to work (3 marks).

4 out of 6 evaluation marks were gained: the focus here was on government measures to reduce the occupational and geographical immobility of labour. A maximum of 4 marks could be awarded for government measures as indicated in the mark scheme. This was done well by the candidate, namely: discussion of possible labour shortages due to the specific skills and qualifications required (such as engineering degrees) and how government training programmes could be used to overcome these; also the issue of a 3 - 4 year time lag in training is raised (2 marks); discussion of policies to overcome the geographical immobility of labour such as reducing the stamp duty on property and more housing subsidies (2 marks).

Consider offering up to three separate evaluation points. Other points that could be used here is discussion on the number and duration of jobs available, and prioritisation of supply determinants with justification.

The main and most important factor which will affect the supply of labour is the price employers are willing to pay for them, known as their wage rate. If employers are prepared to pay high wages, the supply of labour will increase accordingly.
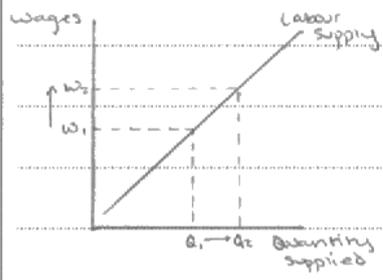
This is shown on the diagram. As wages increase from W_1 to W_2, quantity of labour supplied will increase from Q_1 to Q_2. However, an increase in wages will increase the cost of production to the company, forcing them to reduce the number of workers they employ to reduce those costs again. A point of market equilibrium must be reached between minimum workers are willing to work for and maximum employers are willing to pay before cuts occur.

Another factor which influences the supply of labour is the existance of trade unions. Trade unions are established to ensure workers are treated fairly, receive sufficient wages and pension schemes are adequate. They also make sure working conditions meet regulations and workers are not exploited. The supply of labour will increase if there are trade unions set up and present with representatives, because workers know that they will be treated fairly. However, some workers, particularly those from overseas, will be more willing to work for less and without the safety and protection of a trade union. These workers may then be employed first, having less of a need for British workers.

Finally, if welfare benefits are close to or higher than the expected wage rate, the supply of labour will decrease as there is little incentive for them to work. For this to change, welfare benefits need to be reduced in order to make it harder for people to live off of them, and encourage them to get a job.

8 out of 14 marks achieved. The candidate scores 6 out of 8 knowledge, application and analysis marks: explanation of the relationship between wages and the supply of labour using a diagram (2 marks); consideration of the role of trade unions and how they might improve working conditions such as pension schemes (2 marks); explanation of how welfare benefits might affect the incentive to work and hence supply of labour (2 marks). However, there is little direct application to the tidal barrage project.

Evaluation marks come in the form of discussing how migrant labour may have affected the market wage and undermined the influence of trade unions (2 marks).

Always refer to the context of the question. It is important to apply the determinants of the supply of labour to the proposed tidal barrage. Clearly, there are various skills sets required for such a construction project which affects the occupational mobility of labour.

Question 9 (e)

This question required candidates to evaluate two measures the government could use to promote the generation of renewable energy. It differentiated effectively between the quality of responses but the mean score was a disappointing 6 out of 14 marks. However, some answers were of very high quality. These often considered subsidies for renewable energy sources (such as wind power) and taxes for non-renewable energy sources (such as coal and oil power). Other popular measures that scored highly were the use of tradable pollution permits and relaxation of planning controls for the development of renewable energy sources. Use of standard subsidy and indirect tax diagrams offered a good opportunity to score knowledge, application and analysis marks but were not always taken by candidates. The weaker responses considered government advertising programmes to encourage households to switch to renewable energy sources or to save on electricity. Only limited scope was available for development here.

Evaluation was relatively straightforward for candidates who considered subsidies, indirect taxes or tradable pollution permits: for example, subsidies face funding and efficiency issues; taxes suffer from competitiveness and affordability issues; tradable permits experience monitoring issues and the problem of dirty polluters simply buying spare permits rather than cutting back on harmful emissions.

The first measure of a government subsidy to increase the supply of solar panels. A subsidy is a grant by the government to decrease the cost of production. The following diagram illustrates this:
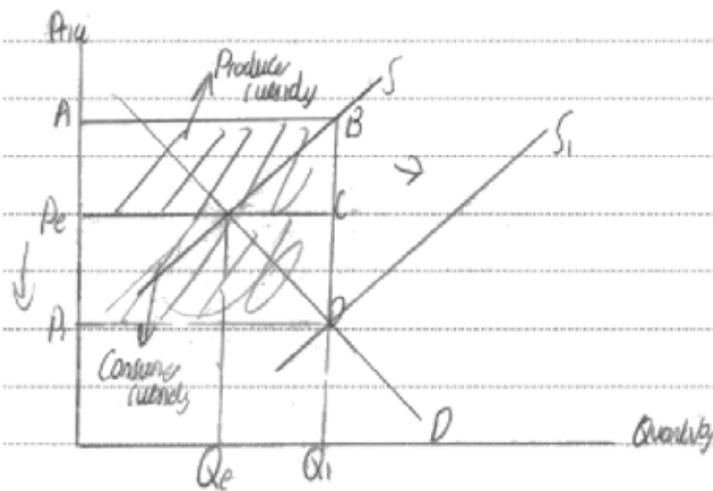
The diagram shows an increase in supply from S to S₁ causing a fall in price from Pe to P₁ and to an increase in quantity from Qe to Q₁. The producer subsidy is shown by the area ABCPe and the consumer subsidy is area PeCDP₁. A subsidy to solar panels producers will increase the supply of solar panels and reduce the price which makes it more affordable for people to solar energy generation is promoted and it is renewable because it can't run out.

For evaluation, the ~~governmen~~ government subsidy leads to an opportunity

cost (value of the next best alternative forgone). The opportunity cost of providing promoting solar power is not investing in schools or hospitals to promote economic growth.

For evaluation, solar power is unreliable when it isn't sunny outside which is common in the UK so it may be ineffective. Furthermore the demand for solar power could be elastic because a large proportion of income is spent on the panels and there are a lot of substitutes such as wind power. This means that the consumer benefits most from the subsidy as shown by the large area so it may not decrease the cost of production significantly for producers because they get a lower proportion of the subsidy.

The second measure the government could use is tradable pollution permits. This is when businesses are need to buy permits from the the government in order to release harmful emissions and there is a cap on how much they release. This promotes generation of renewable energy because it provides an incentive for businesses to go green in order to reduce the cost of production caused by the permits. The permits work with the price mechanism to internalise external costs. The permits go down over time and firms can sell excess permits when they go green to make revenue.

For evaluation it depends on the magnitude of factor. If too many permits are allocated by the government it provides little incentive to go green so it ↓ welfare. If there are too few permits at the start at high price firms may be less competitive so they may relocate to save money and maintain profits which causes unemployment.

For evaluation, there is a debate as to whether big company should get more permits than small companies. If one country (England) uses these permits it ↑ therefore welfare at reducing global warming as whole continents such as the EU need to use it if promoting renewable energy source is going to be successful.

One way that the government could promote the generation of renewable energy is through the use of subsidies and grants. This would mean that the cost of producing things such as wind turbines will fall meaning that supply of them will rise, leading to a fall in consumer prices and therefore a rise in demand.

However an evaluation of this is that it will be very costly to the government as they will just be giving money away to promote it. This could lead to a rise in taxes to help fund the scheme meaning people may not have the funds to build wind turbines or solar panels even with the subsidies.

Another way they could promote the generation of renewable energy is by reducing the supply of carbon emmision permits meaning they are more costly to buy for firms. This would promote the generation of renewable energy because it means that firms firstly have to be more careful about what they emit into the atmosphere and secondly will think about

building renewable energy sources which produce ~~those~~ no carbon emmisions ✓ to help save money and even ~~make money~~ generate revenue. in the long run once costs have been offset. ✓
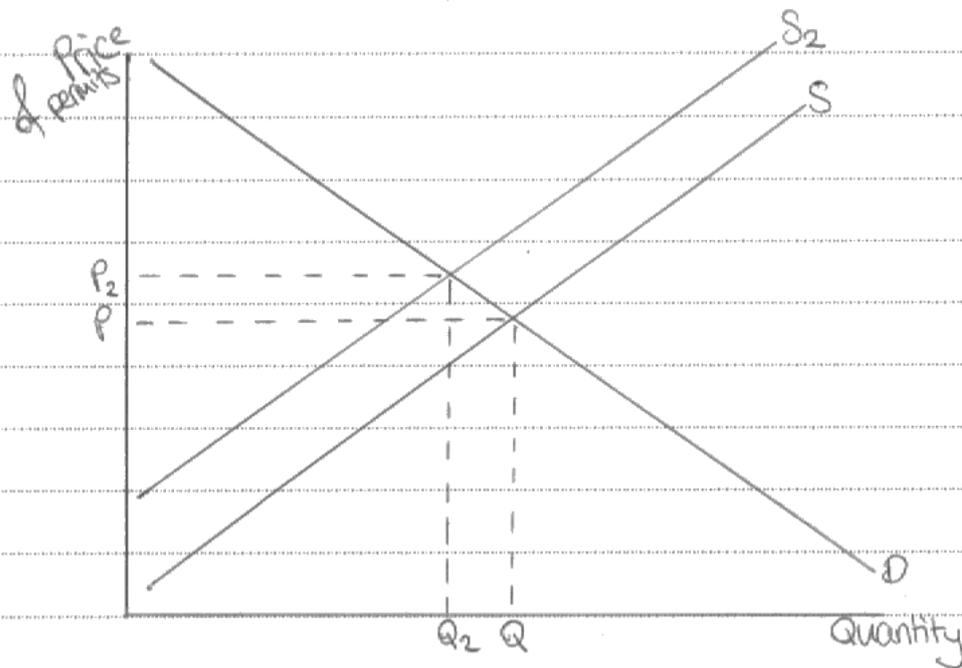
However an evaluation of this is that it could be difficult for the government to keep track of how much ~~pollution~~ pollution each firm is emitting and, should go over their allowance to fine them accordingly. This is because there are millions of firms within the UK and only so many ~~people~~ people able track them. It could also be costly to the government as they have to ~~allocate~~ allocate resources to keep track of the firms and also they ~~byywwm~~ have to buy up a certain number of the permits

to reduce the supply.

Question 10 (a)

This question required candidates to explain two causes of the decrease in tobacco smoking shown in the information provided. It was a gentle introduction to the data response and almost sixty percent scored full marks, the most popular reasons given were government health campaigns, increased tobacco taxes and tough regulations on the purchase and sale of cigarettes. However, the weaker responses simply repeated sentences from the extract and offered no development. These usually achieved two knowledge marks.

Figure 1 shows how the consumption of tobacco was decreased from 45% in 1974 to 20% in 2010. One cause of this reduction may be due to the "government health campaigns" which have "warned people of its dangers" and this has made the public aware of the health concerns smoking can cause such as lung cancer which has reduced its consumption as less people are willing to damage their health for tobacco. Another reason may be the very high taxes on tobacco as extract 1 highlights that "the tax on tobacco now accounts for 80% of the £7.45 price paid" and thus the increase in taxes makes tobacco consumption more unaffordable, especially for low income families, hence reducing consumption.

4 out of 4 marks awarded. The answer begins with a data reference from Figure 1 pointing out the downward trend in tobacco smoking (1 mark). The first reason offered (Government health campaigns warning of the dangers of smoking) achieves 1 mark; the second reason has sufficient development to gain 2 marks (high tobacco taxes which make tobacco consumption unaffordable, especially for low income families).
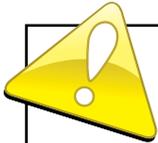
Use the data in your answer, stating figures. A mark is gained by referring to Figure 1, which shows the decrease in tobacco smoking from around 45% to 20% of the adult population between 1974 and 2010.

Firstly there has been a decrease in tobacco as a result of "government health campaigns" which have warned of "dangers".

Secondly, "the tax on tobacco" has risen. This is specific tax ~~which is per good~~ a set amount per good. Tax now "accounts for 80%" of the price.

2 out of 4 marks awarded. The candidate offers two reasons from the extract namely, government health campaigns warning of the dangers from smoking (1 mark) and high tobacco taxes which account for 80% of its price (1 mark).

Be prepared to develop points from the extract. The first reason for the decline in tobacco smoking could have been developed by explaining the nature of government health campaigns which often involve shocking people into giving up the habit through pictures on tobacco packets. The second reason could have been developed by suggesting that high tobacco taxes have made it unaffordable for many people to start smoking or to continue with their habit.

Question 10 (b)

This question required candidates to outline the impact of the decrease in demand for tobacco smoking on consumer surplus and producer surplus. Diagrammatic analysis was also required. It differentiated well especially between the top to mid-range of responses and some forty percent achieved the full six marks. An inward shift of the demand curve was required in the diagram and most responses offered this. Some responses shifted the supply curve inwards and this was also accepted as valid provided that the analysis was correct.

Consumer surplus is the difference between the price a consumer is willing to pay and the price they do pay.

Producer surplus is the difference between the price a producer is willing to accept and the price they do accept.

The decrease in demand causes a shift in the demand curve from D to D₁ which causes a price drop from P to P₁.

The original consumer surplus was the area PXY. After the decrease in demand it fell to P₁BZ.

The original producer surplus was the area PXA. After the decrease in demand it fell to P₁BA.

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6 out of 6 marks awarded. Definitions of consumer surplus (1 mark) and producer surplus (1 mark) are supported with a relevant diagram depicting an inward shift of the demand curve (1 mark). The original consumer surplus and producer surplus positions is credited (1 mark); the fall in consumer surplus is identified from PXY to P1BZ (1 mark) as with the fall in producer surplus from PXA to P1BA (1 mark).

ResultsPlus
Examiner Tip

Try and make diagrams clear and always explain what is happening within them.

Price

S

E₁

P₁
P₂

E₂

D

Q₂ Q₁   Quantity

Consumer surplus is the difference between what the consumer is able and willing to pay and what they actually pay.

Producer surplus is the difference between what the producer is able and willing to sell for and what they actually sell it for.
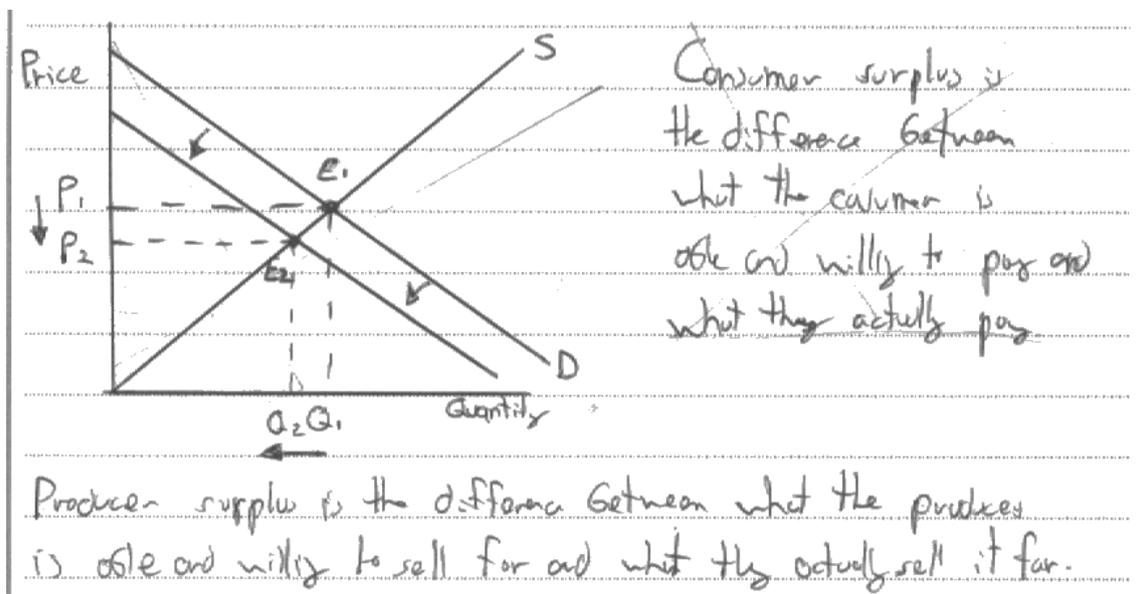
ResultsPlus
Examiner Comments

3 out of 6 marks awarded. The candidate offers definitions of consumer surplus (1 mark) and producer surplus (1 mark). A correct diagram is drawn depicting a decrease in the demand curve for tobacco smoking (1 mark). However, no attempt is made to show the impact on the areas of consumer and producer surplus.
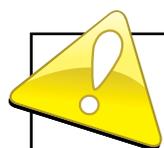
ResultsPlus
Examiner Tip

Always explain what is happening in any diagrams drawn. Explanation marks are typically available. In this case a further 3 marks could be gained by just outlining the original and new areas of consumer and producer surplus.

Question 10 (c)

This question required candidates to discuss whether the demand for tobacco products is price inelastic or price elastic. It differentiated effectively across the ability range, with a mean mark of six, leading to a bell-shaped spread. The best responses used a combination of ideas from the extract and also their own knowledge. The extract suggested that demand is price inelastic for a small percentage of teenagers and for some manual workers. It also revealed that price increases (through higher taxes) led to an increase in consumer expenditure on tobacco - again suggesting it is inelastic in demand. Candidates often brought in their own ideas suggesting that smoking is addictive and has few close substitutes, so likely to be price inelastic in demand. Evaluation usually came in the form of discussing the long term downward trend in smoking shown in Figure 1 and also how new technology has led to the development of substitutes such as E-cigarettes. These could make demand price elastic over time. Some discussion on how elasticity might vary between different brands of cigarettes was also raised but often not explained properly.

Price elasticity of demand ~~refers~~ is the responsiveness of demand to a change in a good's own price. The demand for tobacco is likely to be price inelastic. ~~This~~ Extract 2 supports this fact by stating "consumer expenditure on tobacco has increased from £15.1 billion in 2010 to £15.3 billion in 2011". This increase in expenditure is despite the increase in the price of tobacco by 37p.

An important reason as to why demand is price inelastic is because tobacco is a highly addictive good. This means that it is habit forming and ~~is likely to~~ consumers are likely to absorb massive increases in prices because they are addicted to the good. This results in the demand curve being highly price inelastic as shown:
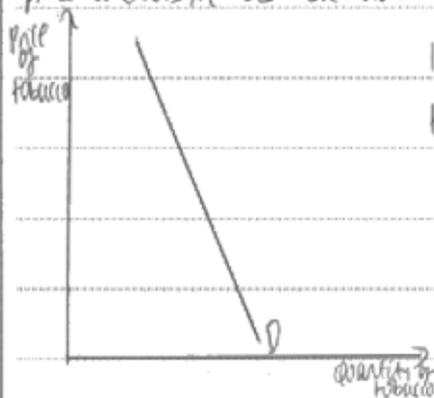
In addition, ~~tobacco~~ the demand for tobacco will be inelastic because there are no real substitutes for the good. The nicotine provided in tobacco and tobacco related products is essentially unique to the good. As a result consumers are unable to switch to a better substitute if faced with a rise in price. Therefore consumers will be likely to absorb price rises as they feel unable to receive the 'nicotine fix' from other goods.

However, substitutes have recently begun to emerge on the

market. E-cigarettes are becoming more and more stylish and there are may be considered a good subsitute as they contain nicotine. this is a testament to the fact that the elasticity of demand becomes more elastic over time. A few decades ago, the provision of e-cigarettes would have been severly limited, if they existed at all. technological advancements have allowed cigarettes to have a substitute to replace them if necessary.

Furthermore demand may be considered elastic as a small proportion of income is spent on the good. this means cigarette consumers should be sensitive to pricing, to a certain extent, because they spend a good proportion of money on the good in the first place. Strangely, extract 3 contradicts this economic theory because it states that demand for cigarettes remains much higher in low income workers. this is a contradiction as we would initially think that those with the smallest income would be the most sensitive to price changes.

Price elasticity of demand is the responsiveness of demand to a change in the price of a good.

$$PED = \frac{\% \Delta Qd}{\% \Delta P}$$

~~Tobacco products are likely to be~~

Price inelastic means that a ∧percentage change in price will lead to a smaller pexentage change in quantity demanded. Price elastic means that a percentage change in price will lead to a greater percentage change in quantity demanded.

Tobacco products are likely to be price inelastic as they are habbit forming goods ~~so~~ which means that they are very addictive and could be like a necesity to some people.
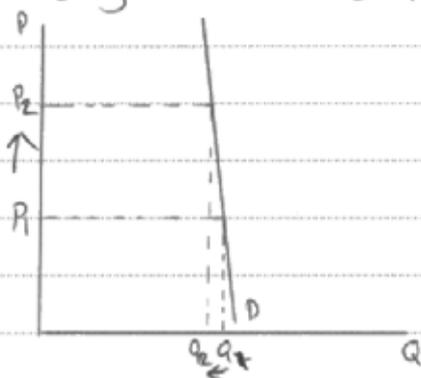

As it is inelastic a Price change of P_1 to P_2 will only lead to a small decrease in quantity demanded from Q_1 to Q_2.

This can be seen that in extract 2 as eventhough these products are highly taxed the `expenditur on tobacco products increased from £16.1 billion ~~to~~ in 2012 to

£15.3 billion in 2010.

However for some people who are not addicted to the products and know the health risks the product may be elastic. ~~the~~ This can be seen in extract 2 as only `13%` of higher income 'workers' consume tobacco where as `29%` of low income 'workers' consume tobacco. This ~~is~~ could mean that ~~the~~ ~~to~~ the higly income workers are more educated and the product is more elastic for them.
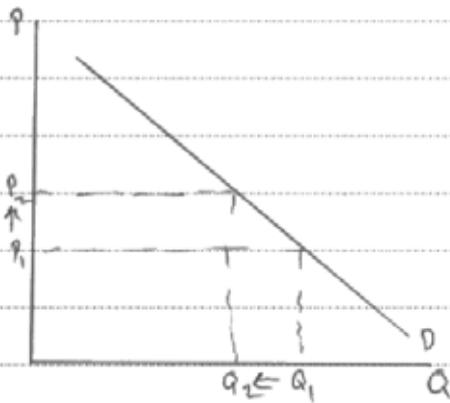
8 out of 10 marks awarded. A definition or formula of price elasticity of demand (1 mark) is supported with an explanation of the meaning of price inelastic and price elastic demand (1 mark). The candidate suggests tobacco products are price inelastic due to their addictive nature (1 mark) and shows the effect of a price rise by diagram (1 mark). Some crucial use of data from the extract is then offered, explaining how consumer expenditure on tobacco increased from £15.1 billion to £15.3 billion in 2011 following price increases - indicating that tobacco is inelastic in demand (2 marks). This answer achieves all six knowledge, application and analysis marks available.

Finally, evaluation is offered by suggesting that demand could be price elastic for some people, particularly those from higher income groups and the more educated in society. This is backed up by use of figures (2 marks).

Offer two 'developed' evaluation comments for questions comprising 10 marks. There are 4 evaluation marks available (2+2 marks).

Question 10 (d)

This question invited candidates to discuss the benefits of a decrease in tobacco smoking for consumers and the government. It proved to be another question that differentiated effectively between the quality of answers and the mean score was just under 7 out of 14 marks. However, many struggled to offer suitable economic analysis and evaluation; indeed less than fifteen percent gained 10 or more marks. Typical problems included an incorrect use of externality diagrams and a lack of focus on the question by discussing the benefits to firms through productivity gains, making no attempt to link to consumers or the government. Evaluation was also quite limited with many discussing the time period and magnitude of the decrease in tobacco smoking without offering any reference to the information provided. It appeared these candidates were using well rehearsed methods of evaluation in a vacuum. Some responses were also extremely critical of the benefits accrued from a reduction in tobacco smoking, pointing out a reduction in tax revenue for the government, financial losses for tobacco companies and job losses in related industries. Often more balance was required in such answers where the benefits also needed to be considered.

However, some excellent responses arose which remained focused on the question and offered both economic analysis and balanced evaluation. The use of an externality diagram was not essential in investigating the question and full marks could be achieved without one. Nevertheless, some answers offered an external cost diagram and shifted the marginal private cost curve closer to the marginal social cost curve to indicate a reduction in the area of welfare loss as tobacco smoking decreased. This was valid analysis as was the appropriate use of an external benefits diagram.

Price, MSC, welfare loss, MPC, MSB=MPB, Q1, Qe, Quantity

Price, MSC, MPC, welfare loss, MPB=MSB, Q, Qe, Quantity, Welfare loss has fallen
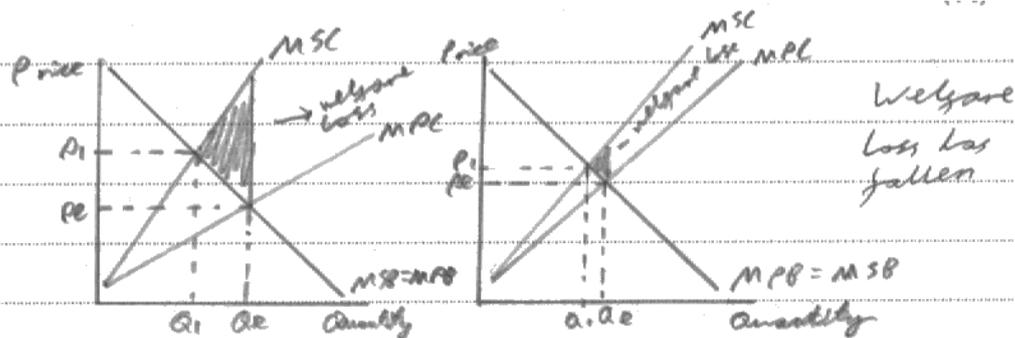
External benefits are benefits external to a exchange and ignored by the price mechanism. Private benefits are benefits internal to an exchange and taken into account by the price mechanism.

Benefits to the consumer will be longer life expectancy, more productivity, less days off from work and more earnings plus also less smoking related diseases like lung cancer.

Benefits to the government will be less pressure on the NHS for smoking related diseases and a more productive and efficient economy. Also more tax revenue from increased working lives. There will also be a reduction in smoking related deaths which is a benefit to consumers. Government benefits also include less tobacco litter and less house fires; government costs will fall from £13.7 billion a year as shown

in figure 2. More productively from less smoking breaks at work and less loss of output from passive and non passive smokers.

However if there is a reduction in tobacco smoking, there will also be costs. Costs to the government is a loss in tax revenue generated by tobacco. The government recieved £12.1 billion in indirect taxes on tobacco in 2012. This may have a opportunity cost as it could be spent on improving healthcare or education. Also there may be increased costs from more people living to an old age and having illnesses like dementia and arthritis causing more pressure on NHS. Workers may also be more aggressive or less productive as no way to release their stress. 1500 pubs and bars have closed which means economy could suffer. Also depends on magnitude of decrease in demand. Also hard to attach monetary value to benefits so hard to determine impact.

14 out of 14 marks awarded. The knowledge, application and analysis marks are gained in a variety of ways: use of diagrammatic analysis (2 marks); benefits to consumers in terms of longer life expectancy, more earnings from work and less chance of suffering from smoking related diseases such as lung cancer (3 marks); benefits to the government in terms of less pressure on the NHS dealing with smoking related diseases, more tax revenue from worker earnings and less expenditure on clearing up tobacco litter and house fires (3 marks).

Evaluation comes in the form of one long paragraph on the second page: discussion of a loss in tax revenue from the decline in smoking (2 marks) is followed by a consideration of the increased pressures on the NHS from more dementia and arthritis sufferers in old age (2 marks); then there is some explanation of how the closure of 1500 pubs and bars might be associated with the decline in tobacco smoking along with an awareness of the difficulty in measuring the value of external benefits (1+1 marks).

Offer three developed 'evaluation' points for questions comprising 14 marks. In this case the candidate gives four points, two of which are well developed. The last two points were awarded a mark each, since on balance, the overall answer merits full marks.

A decrease in tobacco reduces smoking reduces would help reduce government expenditure, as they would not have to treat people with tobacco smoking illnesses. Tobacco smoking costs the NHS £2.7 bn every year according to Figure 2. This would allow the government to invest in other places such as medical technological advances rather than treating tobacco users.

Consumers would benefit as they would not have to take days of from work due to tobacco relating illnesses. This will allow a steady income for labour as they are taking less days of work. It is also helpful for the government as a healthier workforce tends to contribute more towards tax and is more productive.

However, a decrease in tobacco smoking also would redce the tax revenue raised for the government.

It also may not be beneficial as the population may increase as more people are living increasing Government expenditure on NHS for other illnesses.

I4 Decrease in tobacco smoking may also have positive environmental effects, as there would be less Pollution caused by smoking. This would reduce passive smoking also and would be beneficial for society.

8 out of 14 marks awarded. The first paragraph refers to savings the government could make on the £2.7 billion NHS spending concerning tobacco related diseases and how the funds could be redirected into other areas of medical treatment (2 marks); the second paragraph refers to consumer benefits in terms of being healthier and taking less days off work, so gaining more income. This is combined with the government obtaining more tax revenue from these people working (2 marks).

The third paragraph offers some evaluation. It refers to worsening government finances due to a loss of tax revenue as less people smoke. Also it is implied that people will live longer and so there will be more government spending on the NHS (2 marks). Both of these are valid points but need more development to gain further marks. The fourth paragraph refers to the benefits from less environmental pollution and less passive smoking as tobacco consumption falls (2 marks).

Be prepared to develop evaluative comments. In this answer there are two valid critical points which score one mark each. The candidate could discuss the amount of tax revenue currently obtained from tobacco smoking by using the information provided. This could be compared with the benefits of people working longer and paying other types of taxes. Also, there could be discussion of the type of diseases associated with a rising and ageing population as less people die from smoking.

Question 10 (e)

This question required candidates to consider the extent to which regulations on the sale of cigarettes and high taxes on tobacco result in government failure. Like the previous two questions, it differentiated well between the quality of responses. However, the mean score was lower at just 6 out of 14 marks available. There were several reasons for this: first, many responses used an external costs diagram which demonstrated market failure rather than government failure. This was not relevant unless the candidate showed how taxes or regulations helped to reduce market failure (one of the exemplar answers offers this approach and gains marks); second, many responses assumed that because demand for tobacco is price inelastic it makes tobacco taxes ineffective in reducing smoking and so represents government failure. However, addiction to tobacco is not really a government failure and evidence points to a significant drop in tobacco smoking over time; third, most responses argued that regulations on the sale of cigarettes and high taxes on tobacco indicate government failure, developing their answer solely along these lines. Only a minority of responses challenged the question and suggested that without government intervention to curb tobacco smoking there would be far greater failure in the market.
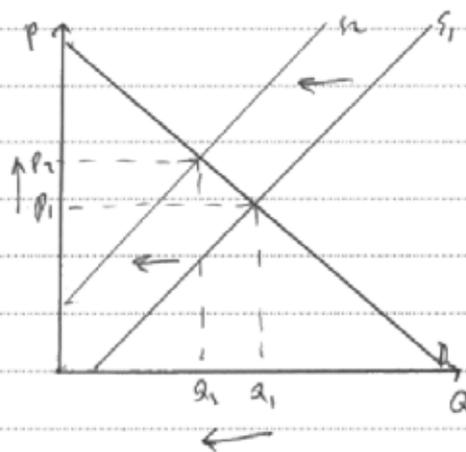
The social welfare loss caused by negative externalities of cigarettes is reduced. This is as quantity moves towards socially optimum quantity. Social welfare loss is eliminated ~~itself~~ or reduced, therefore market failure is reduced. This is the aim of government intervention, so it isn't government failure.

However, regulation and higher taxes can lead to formation of shadow markets. This is when the economic transaction is not recorded and tax isn't paid. This leads to quantity of tobacco products not falling, as firms don't decrease supply as they don't obey regulations. There is also smuggling. 'Around 20% of all tobacco smoked in the UK is smuggled.' This leads to a fall in tax revenue, as tax isn't paid on these transactions. 'More than £2 billion a year in potential tax revenue' lost. This is therefore government failure. Quantity also does not fall, which is also government failure as the costs of the ~~tax~~ policy have been wasted, due to no effect.

The effectiveness depends on PED of tobacco products. They are inelastic as they're addictive. Therefore lower supply causes a significant rise in price, yet small fall in quantity.
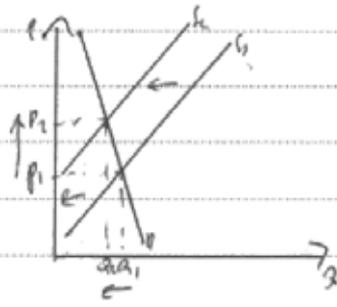
This means there is little reduction of welfare loss. However, the prices are higher, which has of a regressive effect as low income earners suffer more. Therefore there is higher inequality of income, so strict/Pareto government failure.

There are also unintended consequences. A 'government smoking ban' coincided with '1500 pubs and bars closing down'. This is as they are complement goods, consumed together. As demand for these falls, demand for pubs and bars falls. This leads to other industries suffering, and higher unemployment as their output falls. These firms receive less profits so can invest less too. This is a government failure as unintended consequences.

The regulation and indirect taxes may not cause smuggling or shadow markets. This is supported as there is most smuggling in Spain and Italy, with 'lowest tax rates on these'. Therefore smuggling may not occur, so quantity and social welfare loss does fall, therefore no government failure.

Another cause of government failure is it leading to 'manufacture of counterfeit tobacco products'. These are 'more harmful chemical compounds', so have a higher private cost and external cost from the consumption. This leads to a further loss in tax revenue (not taxed) and larger social welfare loss, so government failure. Regulation like forced 'plain packaging' makes it easier to produce these counterfeits.

ResultsPlus
Examiner Comments

14 out of 14 marks awarded. The candidate challenges the view of government failure here. A definition of government failure (1 mark) is followed by developing the idea that tobacco smoking contains lots of negative externalities and that government intervention is necessary to limit these. Suitable diagrammatic analysis is offered which shows the effects of a tax on eliminating the welfare loss from the tobacco market (4 evaluation marks). Discussion then switches to high tobacco taxes leading to the development of a shadow market for smuggling cigarettes into the country and the ensuing loss of tax revenue. This is reinforced later on through explaining the effects of plain packaging on the growth of counterfeit cigarettes (2+1 marks); however, it is also evaluated by suggesting that countries with low taxes on cigarettes such as Spain and Italy have far higher rates of tobacco smuggling (2 marks); consideration is also given to the regressive nature of tobacco taxes and how it affects inequality among low income smokers (2 marks); further problems associated with pubs and clubs closing down and their effects on employment and investment is investigated as an unintended consequence of tobacco regulations (2 marks);

Government failure is when government intervention in the free market leads to a misallocation of resources, as the government have effects which they do not intend. High taxes on tobacco might result in government failure because there will emerge a black market for cigarettes, as producers smuggle them into the country, avoiding tax revenue. Since some of the burden of tax is placed on to producers, if there are high tax rates, producers will either supply less (as the government wants) or will avoid taxes. Extract 3 claims that this smuggling results in the government missing out on £2bn per year in tax revenue.

However, low rates may not combat smuggling, so the high rates may not be a form of government failure. Extract 3 also states that Spain and Portugal, with some of the lowest tax rates have some of the highest levels of smuggling. Smuggling might occur as a result of corruption rather than government failure.

Government regulation, such as banning smoking in public places may cause unemployment - government failure. Extract 3 states that this ban since 2007 has coincided with more than 1,500 pubs closing down each year. This is because smoking is a social event and consumers would often smoke in pubs whilst consuming the pub's alcohol. However, if people cannot smoke in pubs then they demand less of their alcohol and pubs close down as their profits decrease.

However, the external costs to smoking are more detrimental to society than unemployment is. If the government did not intervene then the the market failure of more than £13bn externalities could be more potent than the unemployment.

8 out of 14 marks awarded. In the first paragraph the candidate defines government failure and then refers to problems of tobacco smuggling and the loss of tax revenue due to high tobacco taxes (1+2 marks); this is evaluated in the second paragraph by discussing whether high tobacco taxes is the main reason for smuggling (2 marks); the third paragraph puts the blame on tobacco regulations and taxes for closure of pubs and clubs, leading to job losses (1 mark); finally on the second page, the candidate questions whether it is government failure and that the £13 billion of costs from smoking really represents a market failure (2 marks).
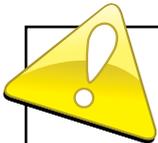
Be careful with time allocation. This answer is quite short and it is likely the candidate ran out of time.

Paper Summary

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

Section A: supported multiple choice

- Define accurately the key economic term(s) used in each question.

- Be prepared to annotate the diagrams presented in the questions

- Revise thoroughly the topic of market failure, especially buffer stocks, for example, Q8. This is an area where candidates often struggle to achieve high marks.

- Be prepared to draw diagrams when relevant to the question and make sure these are properly labelled and explained in the text.

- Always refer to the information provided, for example, income elasticity of demand figures in Q5. This helps to credit responses with application marks.

- Read the question carefully, for example, Q6 required consideration of price elasticity of supply - yet a significant number of responses focused on price elasticity of demand and so gained few if any marks.

- Make sure 'value is added' to answers which use the rejection method. Do not simply state that a particular option is incorrect without explaining why this is the case. Indeed, do not simply reverse one word in an incorrect option statement and then expect to gain credit for it.

Section B: data response

- Read the question instructions very carefully to make sure your answer remains relevant throughout. All too often candidate answers strayed from the questions set as revealed in Q10(d) on the benefits to consumers and government from a decrease in tobacco consumption. Often candidates discussed the benefits to firms and gained little credit here unless it was linked back to consumers and government. Similarly in Q9(d) some candidates discussed the determinants of the supply of labour without reference to the construction of the Severn tidal barrage as required.

- Focus on the concepts mentioned in the question. For example, Q9(d) requires consideration of the supply of labour and so there is little point in focusing on the determinants of the demand for labour.

- Focus on developing economic analysis in the high mark base questions. Quite often candidates moved from definitions and a brief explanation of an economic issue straight into evaluation. This was evident in Q9(e) on a government measures to promote the generation of renewable energy. Economic analysis typically involves explaining the sequence of events leading up to a particular outcome and diagrams may be used.

- Ensure diagrams are accurately drawn and relevant to the question set. For example, in Q9(e) many candidates drew the subsidy and indirect tax diagrams without depicting their respective subsidy and tax revenue areas.

- Offer evaluative comments on the high mark base questions. For example, in Q10(e) relatively few responses challenged the idea that regulations and high taxes on tobacco result in government failure. The majority of responses were highly critical of government intervention here which is rather surprising bearing in mind the enormous damage associated with tobacco smoking and its external costs, revealing market failure.

Grade Boundaries

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

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