



# **Examiners' Report June 2022**

**IAL Economics WEC11 01**

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## Introduction

The standard of work seen in this series for the Markets in Action unit has been impressive.

In Section A, the multiple choice section, candidates performed best on the question on cross elasticity, income elasticity and rational behaviour. Candidates struggled more on the questions on government failure and the forward market.

Section B, the short answer section, saw some mixed performance on questions. Question 7, the diagram saw most able to draw a PFF and to shift it out but many were unable to label the axis correctly. On question 8 many calculated the percentage-point change but when doing so they need to explicitly say that this is what it is. Question 11 identified that the indirect tax was £6 per kg and many failed to identify that this is a specific tax that required a parallel shift.

Section C, the data response section is based on information provided in the source booklet, in this paper on the market for copper and battery electric buses. Candidates could typically access at least one mark on 12(a) to show knowledge of external costs with stronger candidates able to offer precise definitions considering the negative impact on third parties. 12(b) needed candidates to explain the difference between renewable and non-renewable resources. Most offered accurate definitions of each, But many listed multiple examples of each which were both right and wrong and were not rewarded. 12(c) saw most candidates able to correctly draw the diagram to show demand increasing. They also accessed application marks by referring to the price change. On 12(d) it is important to explicitly identify the two likely effects. On 12(e) candidates looked at the introduction of a subsidy. Most could define it accurately and draw the diagram. Those able to achieve a higher score used their diagram in their analysis for example explicitly looking at the impact on price, quantity, the incidence, government spending and producer and consumer surplus. Better responses would also look explicitly at how consumers, producers and governments would be affected.

Section D, the essay section offered candidates the opportunity to choose between two questions. The section was more demanding and this is reflected in the mean scores on both questions. Candidates tended to attempt Question 13 and typically performed better on this question on maximum prices than on Question 14 on why education is underconsumed. In both cases the knowledge of the Economics was sound but candidates struggled in applying it to the context of the question. Another challenge was the level of analysis. Candidates often struggled to fully develop the chain of reasoning. Evaluative comments were often made and whilst some offered supporting evidence and linked to the context many were unable to offer a logical chain of reasoning. Diagrammatic analysis on the work from the stronger candidates was accurate and was integrated with their written analysis. They would not only draw the diagram accurately but talk about what they learnt from it in their written explanation. This enabled them to consistently achieve within the top level.

Most candidates were able to complete the paper in the time available. We did however see several unfinished or very brief essays suggesting that some candidates had not planned their time well. The performance on individual questions is considered in the next section of the report. The feedback on questions shows how questions were well answered and also how to improve further.

## Question 7

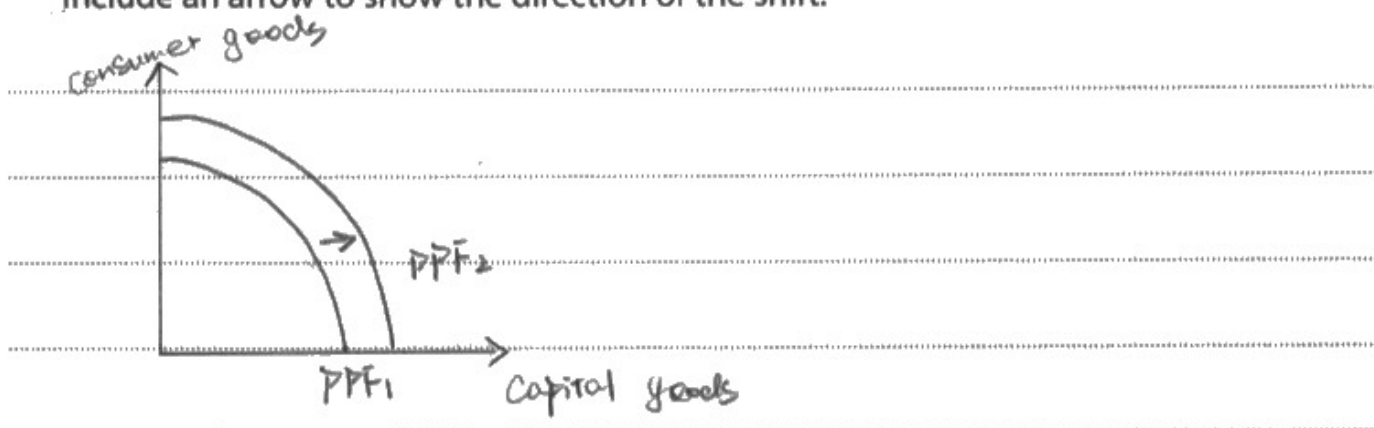
The stem explains that immigration into Germany was 1.59 million and that emigration from Germany was 1.19 million. This represents a net migration of 400 000, that is there are more people arriving than leaving Germany. This increases the productive potential and therefore causes the PPF to shift to the right. The vast majority could draw a PPF in the correct shape. Either a straight line or concave to the origin were accepted. Drawing this original curve gained a mark. Most could draw this PPF to the right. Only a few failed to draw an arrow. Some drew it pointing inwards which was incorrect. The most common reason marks were dropped was for mislabeling or not labeling the axis. Still some offer extensive written explanations to support but commonly the marks were already fully awarded with the diagram.

The candidate here has understood that with more immigrants than emigrants the population in Germany would increase. They appreciate that this will help increase productive potential in Germany and hence the PPF shifts outwards.

- 7** In 2018 there were 1.59 million immigrants arriving in Germany and 1.19 million emigrants leaving Germany.

Draw a diagram to illustrate the likely impact of this population change on Germany's production possibility frontier.

Include an arrow to show the direction of the shift.

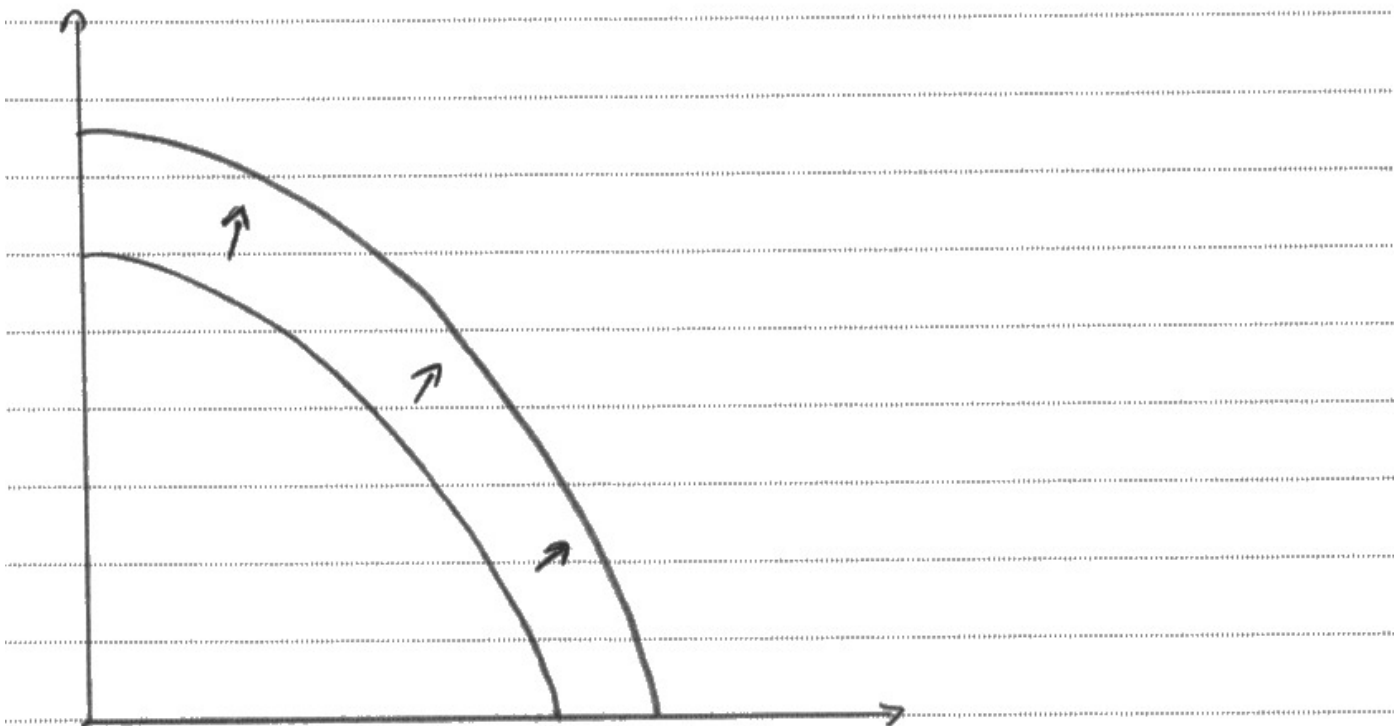


This candidate has accessed all available marks. The axis are both labelled accurately, in this case with consumer and capital goods, although alternatives were accepted. They have clearly labelled each PPF. As requested they have used an arrow to indicate the movement of the curves as requested.



When asked to draw, you do not need to support with a written explanation.

It was surprising how many diagrams had a PPF shape but the axis were mislabelled. This is a typical example where no curve or axis was labelled.



**ResultsPlus**  
Examiner Comments

The shape of the original curve and new curve are accurate. As requested they have drawn the arrows to show the shift. This achieves two marks, the maximum available when no axis are labelled.



**ResultsPlus**  
Examiner Tip

It was surprisingly common for candidates to have everything accurate other than the axis. A significant number labelled the axis price and quantity and again these could achieve no more than two marks.

## Question 8

The performance this series on this question was better than previous series where understanding of capital and consumer goods were tested. Consumer goods in previous series was less commonly awarded. Responses were typically linked to being consumed to gain satisfaction, utility and meeting wants and needs. Such responses gained the mark. It was also common to explain that capital goods are used to manufacture consumer goods. Whilst true they could also be used to manufacture capital goods. Data use explicitly referring to the percentage of GDP in each year or percentage point increases or decreases were rewarded.

The candidate has achieved full marks for two accurate definitions and two accurate pieces of data. However, the calculations of the change 4% and 0.1% are in fact percentage point changes and candidates are reminded that they are only rewarded here is because they explicitly write percentage point change.

- 8 Between 2018 and 2019 investment expenditure on capital goods in China fell from 47% of GDP to 43% of GDP. Over the same period, consumer expenditure increased from 38.7% of GDP to 38.8% of GDP.

With reference to China, explain the difference between 'capital goods' and 'consumer goods'.

capital goods are man made goods used to produce goods and services.  
consumer goods are goods that instantly give satisfaction to needs & want  
Between 2018 and 2019 investment of capital goods fell from 47% of GDP to 43% of GDP. Decreased by 4%. Causing consumer goods to rise from 38.7% of GDP to 38.8% of GDP. consumer expenditure increased by 0.1%.





The definition of capital goods achieves the first mark making reference to man made goods used to produce goods. The second mark is awarded for reference to consumer goods meaning satisfaction to needs and wants. The third mark is for the reference to data on capital goods – 47% to 43% and the final mark for reference to data on consumer goods – 38.7% to 38.8%.



Explicitly use the number given to you. Many candidates just said capital goods decreased and consumer goods increased but this did not gain marks.

## Question 9

A question that candidates were able to demonstrate their knowledge of public goods in terms of accurate definitions. Most could give the example from the case study to achieve the application mark. The better candidates could go on to analyse by considering what the free rider problem was and how this reduced the profits that the firms could generate and would lead to non-supply.

Most candidates could accurately define public goods. They could also make reference to the number of streetlights to gain the application mark. The analysis marks were less commonly achieved.

9 Between 2017 and 2022 the Singapore Government replaced 95 000 streetlights along its roads.

Explain **one** microeconomic reason why the Singapore Government provides streetlights.

Public goods are goods that are non-excludable and non-rivalry. Street lights are considered as Public goods as they cannot exclude people from benefiting the light. However firms do not supply public goods such as street lights as due to the free rider problem. This is why only the government ~~provides~~ ~~to~~ ~~of~~ Singapore provided/replaced 95,000 Street lights, between 2017 and ~~2018~~ 2022.



**ResultsPlus**  
Examiner Comments

The definition here accurately makes reference to non-excludability and non-rivalry. The application mark is awarded for reference to the 95 000 streetlights being provided. One of the two analysis marks is awarded for reference to not being able to exclude people and them free riding.



To achieve the final analysis mark candidates needed to make reference to how the free riding makes it difficult to ensure customers pay and therefore generating profits is difficult. Thus the government has to step in to ensure the streetlights are provided.

## Question 10

It is perfectly acceptable to provide the written definition or formula for PES. Key though is to include quantity supplied rather than just saying quantity.

A large number included the calculation without calculating the values for the percentage change in both quantity supplied and price. Where they then had the final answer wrong they did not gain the marks for the intermediate steps.

However the common error of getting the formula the wrong way round was less common this series. A common error is to include a percentage sign at the end of the PES which is wrong and only gains a maximum of 3 marks.

The candidate has used the correct formula. They then calculate the percentage change in quantity demanded accurately. The percentage change in price is also calculated accurately. These are put together to calculate the correct value of the PES.

10 The table shows the average world price of wheat per metric tonne and the quantity of wheat supplied globally in 2019 and 2020.

	Average wheat price per metric tonne	Quantity of wheat supplied, metric tonnes
2019	\$152.97	732 million
2020	\$176.48	777 million

*Ceteris paribus*, calculate the price elasticity of supply of wheat. Show your workings.

$$PES = \frac{\% \text{ D in qty supplied}}{\% \text{ D in Price}}$$

$$\% \text{ D in qty supplied} = \frac{777 - 732}{732} \times 100$$

$$= 6.147\% \rightarrow 6.15\%$$

$$\% \text{ D in Price} = \frac{176.48 - 152.97}{152.97} \times 100$$

$$= 15.369\% \rightarrow 15.37\%$$

$$PES = \frac{6.15}{15.37}$$

$$= 0.4 //$$



The examiner here saw the correct answer, 0.4, and was immediately able to award full marks without needing to check any other element.



Calculating the % change in quantity supplied and % change in price and including these in the responses was helpful.

Many did this and got the formula the wrong way round but could at least gain marks for each correct calculation. However many included the formulas without writing the percentage change down which meant they missed these intermediate steps.

## Question 11

The stem refers to a specific tax added to salt. Most defined an indirect tax accurately. Most drew the supply curve shifting left. The best student drew this as a parallel shift. The majority gained a mark for correctly showing the price would rise and another for the quantity falling.

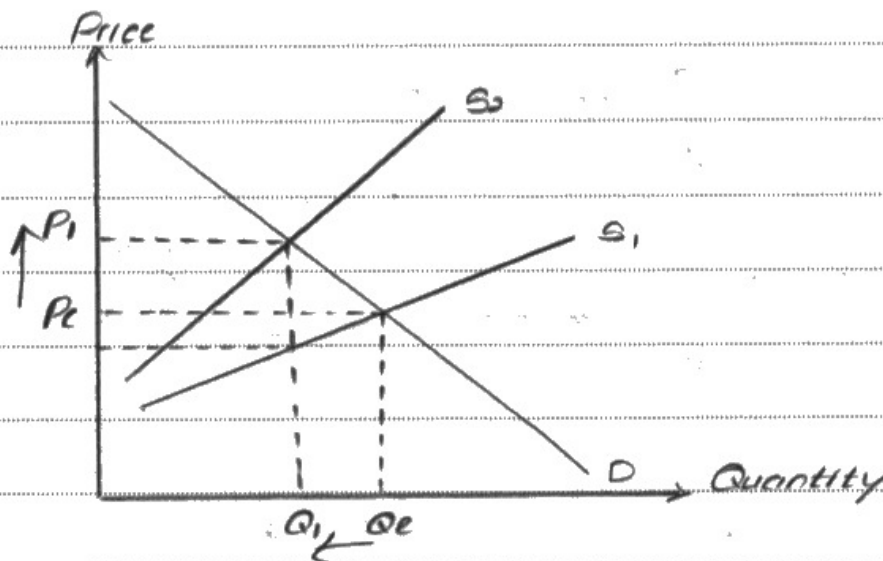
Here we see a common error. The tax referred to is £6 per kg making it a specific tax. The candidate here has correctly moved the supply curve to the left however this is not a parallel shift and is therefore ad valorem rather than specific.

- 11** Eating too much salt is associated with a higher risk of heart disease and stomach cancer. Every year 1.5 million deaths are attributed to excess salt in food. In the UK, the National Food Strategy recommended that an indirect tax of £6 per kg is introduced on salt added to food by manufacturers.

Explain the impact of the introduction of this indirect tax on the market for food products containing salt added by manufacturers.

Illustrate your answer with an appropriate diagram.

*Indirect tax is a tax on expenditure.*



*With the introduction of tax the supply curve shifted to left whereas the supply decreases. The price of the food are increased to  $P_i$  from  $P_e$  and the quantity supplied has also decreased to  $Q_i$  from  $Q_e$ .*

*~~Old~~ equilibrium was  $P_e, Q_e$*

*New equilibrium is  $P_i, Q_i$*



Correct definition gains one mark. Showing the increases in price and reduction in quantity gains the second and third mark.



Be careful to read the details of the tax if it is a percentage tax then it is ad valorem and a pivot in the supply curve is fine. If it is a specific amount it is a specific tax and a parallel shift is needed.

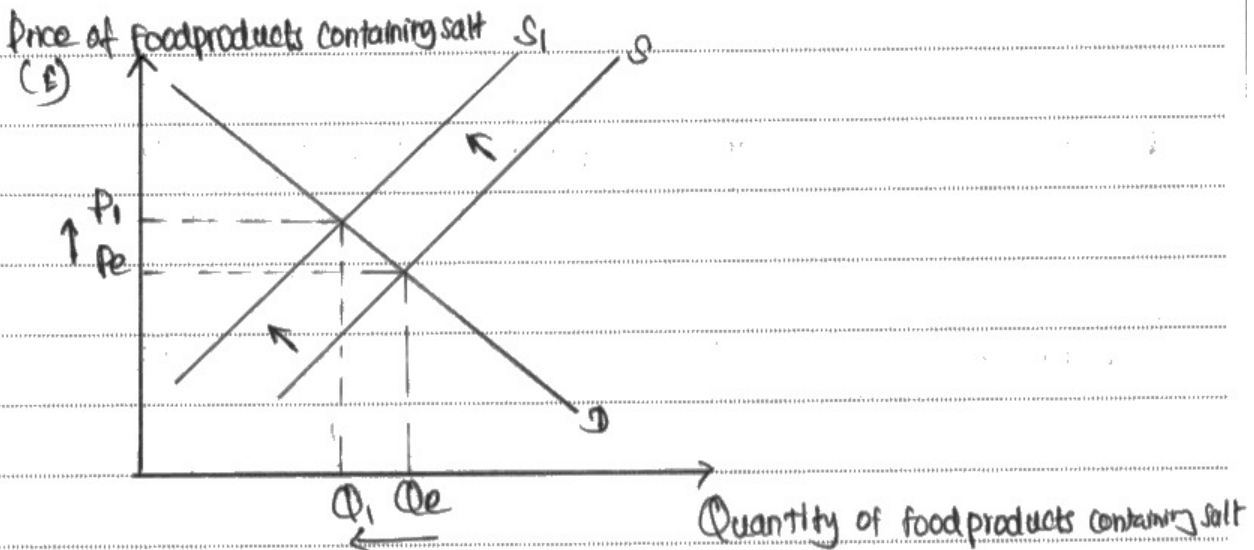


The candidate has written 10 lines of writing and by the end of the first line had already achieved full marks with the diagram. It is important to note on these questions there is a relevant knowledge mark. One mark for illustrating a change on the diagram and two marks for showing the impact in this case on the price and quantity.

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Explain the impact of the introduction of this indirect tax on the market for food products containing salt added by manufacturers.

Illustrate your answer with an appropriate diagram.



Indirect tax is the tax on expenditure. ~~Charge~~ An indirect tax of £6 per kg is introduced on salt added to food by manufacturers are specific tax, which is specific tax are tax charged on the volume of goods or services. The introduction of this tax increases the cost of production to firms therefore the ~~sup~~ price of <sup>food</sup> products containing salt may ~~for~~ rise as a result the supply falls from  $S$  to  $S_1$ . As the price increases from  $P_e$  to  $P_i$  the people may demand less salted food which leads to higher risk of heart disease and <sup>stomach</sup> cancer.



Achieves full marks. The first mark is for the correct parallel shift of supply. The second mark is for the higher price and the third mark for the lower quantity. The first line of the written response defines indirect taxes to achieve the final mark.



In the diagrams it is easy to rush them during the exam and to not make it clear which direction they have shifted. Like this candidate it is useful to include arrows to show the shift of supply as well as price and quantity.

## Question 12 (a)

This question saw the vast majority gain at least a mark. Most could make reference to a third party for one mark. Where they referred to costs they gained no further mark but reference to negative impacts was credited. It was also common to gain full marks for reference to marginal social costs (MSC) being greater than marginal private costs (MPC)

This gains one mark for understanding the costs are on third parties. This sort of response only gained one mark as all it does is identify that there are costs which is in the keyword they need to define.

12 (a) Define the term 'external costs' (Extract B, line 3).

(2)

External costs are costs to a third party of an economic activity



The inclusion of an example of an external cost from Extract B was commonly offered and rewarded. No example has been offered here.



Making reference to negative impacts would enable this learner to gain the additional mark.

The question on external costs was commonly answered with  $MSC > MPC$  and this alone was enough to be awarded the full two marks.

12 (a) Define the term 'external costs' (Extract B, line 3).

(2)

External costs refer to Negative impacts on  
third parties.

Diesel buses are used by large amounts of people  
thus reducing air quality. Children who go to school in  
vehicles are likely to develop diseases.



**ResultsPlus**  
Examiner Comments

The first mark is awarded for reference to the negative impact. The second mark is for reference to third parties. They would also gain a mark for examples of external costs taken from Extract B but full marks have already been achieved.



**ResultsPlus**  
Examiner Tip

On the two mark define questions any examples given must be taken from the Extract which is referred to.

## Question 12 (b)

To achieve full marks on this question a definition of renewable resources and non-renewable resources is required. An accurate example of each taken from the data is needed to gain the final two marks.

It is not good enough to just say renewable resources renew and non-renewable resources do not renew.

(b) With reference to Figure 2, explain the difference between 'renewable resources' and 'non renewable resources'.

(4)

Renewable Resources are Resource which can be used over and over again as it it Replenish by nature  
eg - wind, other renewable resource, Natural gas

NON renewable Resources are not Replenish by nature which can be one time use and <sup>existing</sup> ~~scarce~~ in future generation  
Such as coal, oil.



**ResultsPlus**  
Examiner Comments

The definition of renewable resources is accurate making reference to being able to use over and over again and to the fact it replenishes. Either taken alone would be enough to gain the mark. The definition of non renewable resources is accurate making reference to to not replenishing. The two examples for non-renewable given are both acceptable. The examples for renewable include accurately wind but natural gas is also incorrectly identified. This this candidate was awarded 3/4.



**ResultsPlus**  
Examiner Tip

Commonly candidates would list two or three renewable and non-renewable resources. The risk with this is that all need to be right so it would be best to list one which is accurate than three where one might be wrong.

## Question 12 (c)

The 6 mark question typically requires a diagram and when two curves need shifting 4/6 marks are available for the diagram. In this case, where only one curve needed shifting only 3 marks were available for the diagram. In this instance the other application mark is for explicit reference to Figure 1.

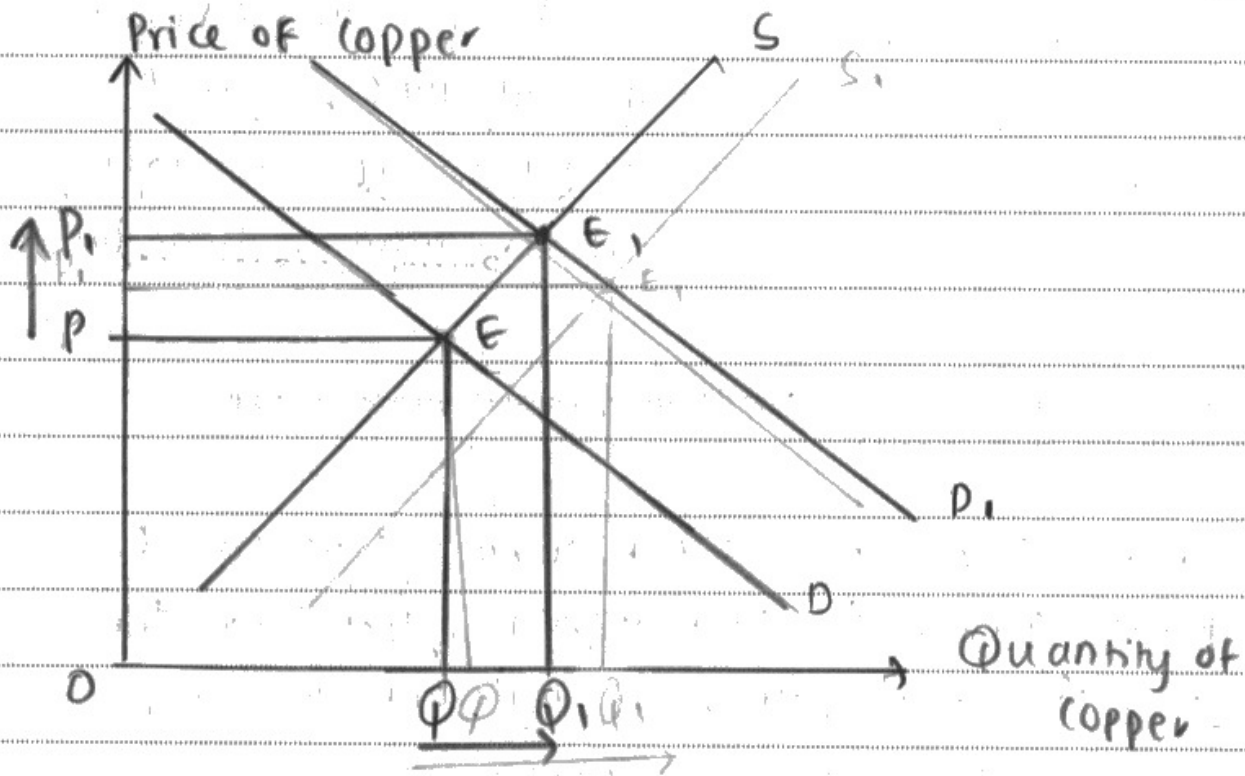
The the first knowledge mark was for the correct initial supply, demand and equilibrium. The next mark is for the correct shift of demand to the right. The final mark for the diagram is the final equilibrium. Next they needed to make reference to Figure 1. The two analysis marks were for the reasons that demand for copper had increased.

Three marks are available for the diagram. Two marks for analysis which is the reasons and 1 mark for data reference to Figure 1.

(c) With reference to Figure 1 and Extract A, analyse **two** reasons why 'the world price of copper increased significantly' between May and December 2020.

Illustrate your answer with a supply and demand diagram.

(6)



Between May and December 2020, the world Price of Copper increased significantly. The Speculation expected the global rate of economic growth to recover from the global health crisis and started to buy more copper. This increase in speculative demand would shift the Demand curve to the right, resulting in a new equilibrium and an increase in the price of copper.

^ Furthermore, Output of Electric vehicles also increased. Each vehicle requires approximately 89 kg of Copper in its production. ~~Therefore~~ The Demand for Copper is thus derived from the demand for ~~the~~ electric vehicles resulting in a rightward

shift of the Demand curve, <sup>subsequently</sup> ~~for~~ resulting in a new equilibrium at  $E_1$ , and an increase ~~d~~ in price of copper.

These factors cumulatively contributed towards an increase in price of copper from approximately \$5000 per metric tonne in April 2020 to \$7000 per metric tonne closer to December 2020.



**ResultsPlus**  
Examiner Comments

The diagram achieved one mark for the original supply, demand and equilibrium. A second mark is awarded for shifting demand to the right. The final mark for the diagram is the new equilibrium with a higher price and quantity.

They then identify a series of reasons. Speculative demand following the global health crises. The increased demand for electric vehicles which require copper.

The final mark is awarded over the page where they identify the price changes.



**ResultsPlus**  
Examiner Tip

The dates given are between May and December 2020 so these are the dates that the prices need taking from.



## Question 12 (d)

The question looked at the likely impact on plumbers of the increases in the price of copper pipes. Most could make the link to copper pipes being needed and could link this to costs and supply. There was a tendency on this question for one long chain of reasoning to be used. It is helpful if the candidates explicitly identify each effect in turn and offer the analysis of this. For evaluation there are two marks available and this could be achieved through either offering two evaluative comments or developing one.

The two application marks tended to be awarded for making reference to the changing costs of copper and to the fact plumbers prefer using copper. Most commonly candidates focused on the rising costs, leading to supply shifting left resulting in a higher price and lower quantity. Many looked at the likelihood that profits would fall as costs rise and firms are unable to hand this rise in costs on in terms of higher prices. The evaluation was less commonly offered, but those that did tended to focus on the proportion of total costs than copper pipes represented, the elasticity of demand and how that being inelastic will see little impact on revenues and whether plumbers had spare stock of copper pipes that could be used to avoid the higher costs.

(d) With reference to Extract A, examine **two** likely effects of an increase in the price of copper on plumbing firms that replace water pipes in customers' homes.

(8)

Ans: Supply of copper is the amount of copper producers are willing to supply at a given price over a period of time.

Most plumbers prefer to use copper pipes rather than plastic pipes. Therefore if due to an increase in price for copper will result in higher cost of production for plumbing firms which means that their ~~revenue~~ revenue might fall which they could counter by laying off workers which could result in higher unemployment. Plumbing firms could also switch to plastic pipe which will increase their utility & demand for copper might fall a bit.

However, it depends whether consumers are willing to pay high prices for copper price as then plumbing firms can continue using copper while maintaining their profit levels. This is possible if average income level is higher in the economy.



This candidate has scored 6/8.

They achieve an application mark for making reference to most plumbers preferring copper pipes.

A knowledge mark is awarded for identifying that costs of production will rise. An analysis mark for they might lay off workers.

A knowledge mark for customers may switch to plastic pipes.

They gain an evaluation mark for making reference to it depending on whether the customers are willing to pay a higher price. This is developed with reference to them being able to increase the price and generate more profit.



It is useful on these questions to be explicit as you identify the two likely effects. For example 'The first likely effect is that... '

## Question 12 (e)

The question was generally well answered. Most could define accurately and include a relevant diagram. It was pleasing that so many were able to integrate the diagram in their analysis talking about specific areas from the diagram. Specific issues related to BEBs were included particularly about their advantages and disadvantages compared to diesel buses. The latter often coming up in evaluation. It was pleasing that evaluation was often applied. So not just talking about magnitude but relating to the size of the subsidy. A number for example calculated the number of BEBs this could fund to consider the impact. Another common argument was the concerns over the range and how diesel buses were superior.

Most learners could talk theoretically about the impact of a subsidy. Those able to move the response to Level 3 were often able to talk in detail about the impact on the market for battery electric buses. A key focus was on the impact of reducing the externalities associated with diesel buses.

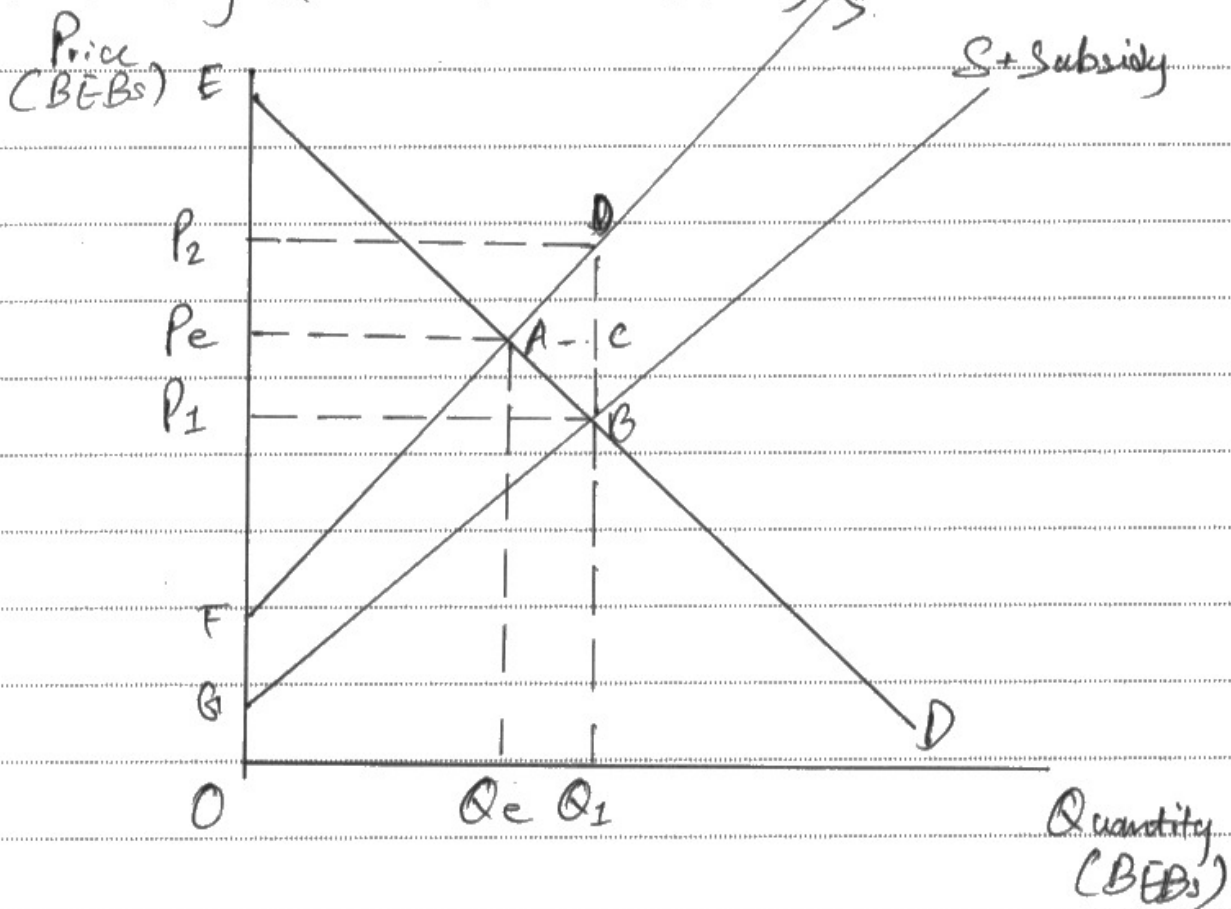
(e) With reference to Extract B and your own knowledge, discuss the possible effects of a subsidy paid to manufacturers of battery electric buses (BEBs).

Illustrate your answer with an appropriate diagram.

(14)

A subsidy is a form of government grant whereby the given to firms in order to lower their costs of production and encourage the supply of particular goods and services in the market.

As per extract B, the US Government allocated \$ 979 million of subsidies to increase the number of battery electric buses (BEBs).



Due to the subsidy given to BEB manufacturers, the supply curve shifted rightwards as costs of production decreased and it is a factor influencing supply, so the supply capability of firms producing BEBs increased. The price decreased from  $P_e - P_1$  and  $QD$  increased from  $Q_e - Q_1$ . As quantity demanded increased for BEBs, the demand for labour is likely to increase as well because labour is a derived demand, so more workers are likely to have a job in this industry. Old consumer surplus was  $P_e A E$ , new consumer surplus is  $P_1 B E$ . Consumer surplus has increased. Old producer surplus was  $P_e A F$ , new producer surplus is  $P_1 B G$ . Producer surplus has increased. Old producer revenue was  $P_e A Q_e O$ , new producer revenue is  $P_1 D Q_1 O$ . Producer revenue has increased, encouraging more firms to enter the market and further increase supply of BEBs, further reducing negative externalities, likely. Producer incidence is  $P_2 P_e C D$ . Consumer incidence is  $P_e P_1 B C$ . The section  $P_2 P_1 B D$  expresses government expenditure

However, we must consider the magnitude of the subsidy.  $\$979$  million worth of subsidies may be considered substantial and may take a toll on the government's budget. Also, the government may have also used this substantial amount on other key sectors (e.g. health).

Also, in order to <sup>charge</sup> fuel the electric batteries of BEBs, charging stations may need to be made, and these infrastructural changes may need further government spending.



The definition is accurate, this is linked to lower costs of production and encouraging supply. The data is used to identify the size of the subsidy.

The diagram has an initial equilibrium, supply is shifted in the right direction. The new equilibrium price and quantity is identified. The area of the subsidy is also marked on the diagram. Alone without supporting analysis the diagram would achieve level 2.

The work is elevated to level 3 in the analysis that follows. They have identified a number of correct areas for example consumer surplus, producer incidence and government expenditure.

The evaluation is offered and links to the magnitude of the subsidy and a hint of opportunity costs. They also talk about the need for charging stations adding to the costs. The evaluation is level 2.

Overall for Knowledge, Application and Analysis they are awarded 7/8 and for evaluation they achieved 3/6. Overall the candidate achieves 10/14 marks.



When asked to illustrate your answer with a diagram it is important to include a relevant diagram. Those that only focus the analysis of this on the impact on price and quantity tended to achieve Level 2 and those that looked at other areas such as consumer or producer surplus, producer and consumer incidence, size of the subsidy were more likely to access Level 3.

### Question 13

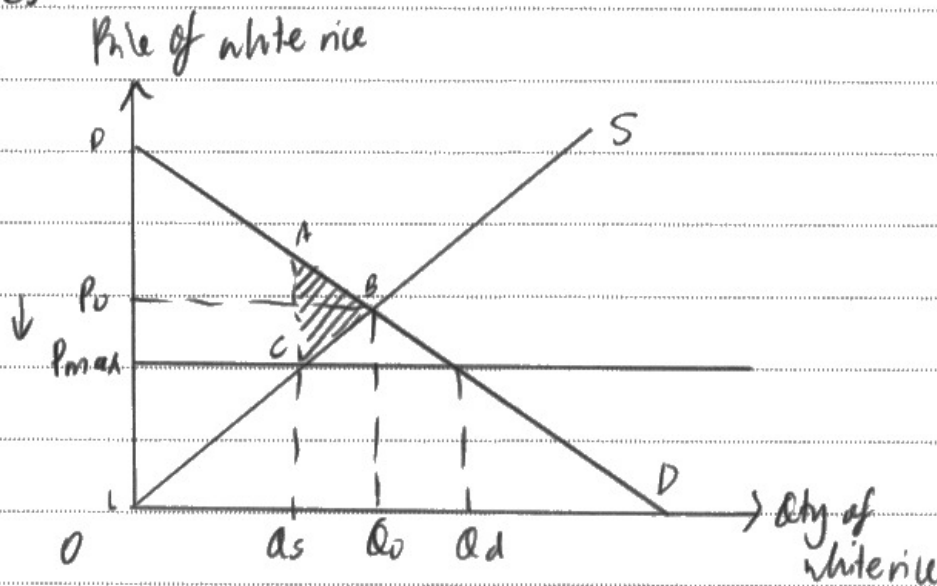
The first of the two essays was more popular than the second essay. Many candidates offered a diagram that supported their response often enabling them to access higher scores. The definition of maximum price was normally accurate, diagrams offered were accurate and analysis looked at the impact on economic agents. Evaluation often focused on the problems associated with a maximum price.

Most candidates looked at winners and losers from the introduction of a maximum price. This approach identified those that could access the rice benefiting from a lower price and more consumer surplus. They contrasted this with the consumers that will not access the product and would lose out. Similarly they looked at the threat to profit and survival of the producers of white rice. In looking at firms leaving the market they often looked at them substituting to more profitable crops.



Maximum price is the legally set <sup>maximum</sup> price for a good or service in the market. For it to be effective, it has to be below the market equilibrium price.

Imposition of maximum price of Rs 80 per kg for white rice in Sri Lanka will firstly reduce market price ( $P_0 \rightarrow P_{max}$ ) thus ensuring equity for consumers.



However, a situation of shortage  $Q_s < Q_d$  will be created at  $P_{max}$  as  $Q_d > Q_s$ . This creates a welfare loss of  $ABC$ . Producer surplus will be reduced from  $P_0BO$  to  $P_{max}CO$  while consumer surplus will increase from  $DBP_0$  to  $DACP_{max}$ . Thus, consumers from  $Q_0$  to  $Q_d$  will enjoy price reduction ( $P_0 \rightarrow P_{max}$ ) and increased surplus. However, consumers from  $Q_s$  to  $Q_d$  will lose access to white rice due to producer unwillingness <sup>and inability</sup> to supply from loss of profit revenue ( $P_0BQ_0O \rightarrow P_{max}CQ_sO$ ). This contradicts gains from equity. A black market might even form which is an unregulated market that charges

exorbitant prices above  $P_{max}$ . Consumers, buying from it ~~will~~ lose <sup>out</sup> guarantee on price and quality competitiveness and causing a policy failure. Thus, government regulation is necessary to ensure that policy is successful through <sup>strict</sup> punishment. To evaluate, white rice is a necessity in Asian countries like Sri Lanka so ~~ensuring~~ affordability PED inelastic ( $|PED| < 1$ ). This means there is huge incentive for black market sellers to operate as huge ~~price~~ mark-ups in prices will ~~only~~ result in less than proportionate <sup>decrease</sup> quantity demanded, & being very profitable. The magnitude of shortage will also depend on ~~the~~ extent of decrease from  $P_0$  to  $P_{max}$ . The ~~greater~~ lower  $P_{max}$  is, the greater the shortage and hence more likely net welfare loss as  $Q_s Q_d >$  <sup>equity</sup> gains in  $OQ_s$ . More significantly however, as PED inelastic, a decrease in price of rice will only result in ~~a~~ less than proportionate increase in quantity demanded, ~~minimising~~ due to other factors causing this price inresponsiveness like habit bias, minimising intended gains for consumers.

Another possible impact on the market will be the huge reduction in producer surplus ( $P_0BO \rightarrow P_{max}CO$ ), this might motivate producers of white rice to leave the industry for more profitable ventures ~~in the long-run if they~~ or diversify into other possible substitutes that will not have such price controls like brown rice or rice noodles. This will thus lead to a decrease in supply of white rice in the long-run, which ~~worsens~~ will ~~also~~ increase shortage problems, worsening equity ~~and~~ and problems of the black market. As ~~As~~ unintended by the government, this leads to government failure. ~~The government might thus resort~~ The government might resort to intervention buying to reduce welfare loss ~~to~~ but this is not sustainable financially as

government finance that Sri Lanka, being a ~~developing~~ non-developed country is unlikely to have, ~~that measure~~ leading to a crisis and policy failure like Burma in the 2000s. To evaluate however, this would depend on the ~~time~~ <sup>time</sup> duration of this policy. A long-term measure will adjust producer expectations and behaviour and lead to the previously mentioned learning of market. Corruption is also rampant in Sri Lanka, and to deal with price cuts (Pm), producers might even compromise the quality of the rice through excessive use of cheap pesticides that might boost yields and ~~that~~ this cut costs of production at the expense of consumers and greater society as it incurs great external costs of pollution.

Thus, ~~to~~ in the final analysis, maximum price importation for Sri Lanka in the white rice market is likely to lead to government failure given the huge costs required for <sup>effective</sup> policy. The government also has to have correct information for it to be <sup>effective</sup> and healthy finances to sustain regulation to prevent <sup>net</sup> welfare loss through black market or corruption. Thus, it might be more advisable to use less distortive measures in the market such as short-term subsidies that are less direct and will incentivise production and innovation and achieve a similar effect.



This is an excellent response.

The diagram is accurately drawn. They then integrate this into the analysis referring to the changes in producer and consumer surplus for example. They consider the emergence of a unregulated market in terms of a government failure.

The evaluation offered is strong. It considers the inelasticity of demand and the distance between the minimum price and the equilibrium price. Government failures is also considered. Possible impacts on quality are also discussed.

The candidate achieves 11/12 for knowledge, application and analysis and 7/8 for evaluation.

Scores 18/20.



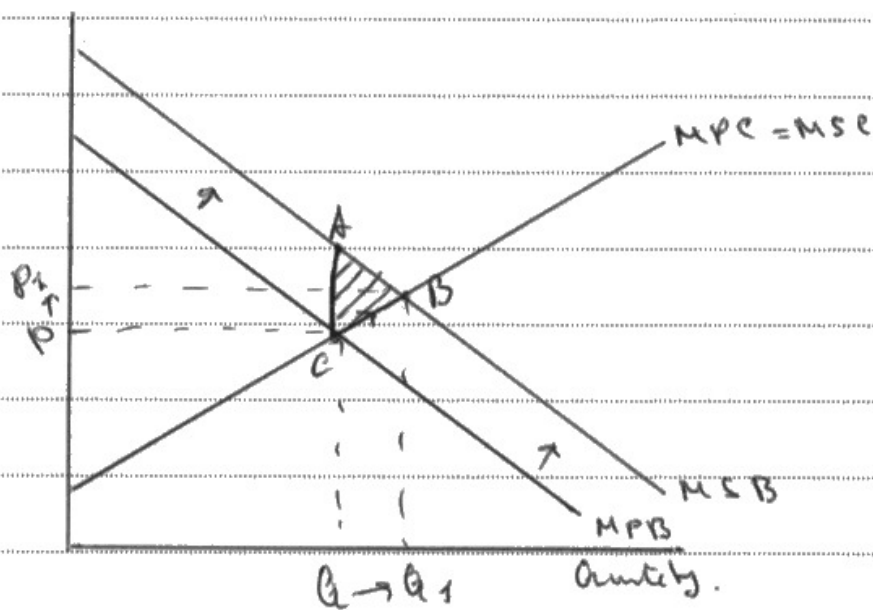
When including diagrams it is important that in the written analysis candidates explain what it shows in terms of the impact on economic agents such as consumers, producers and government.

## Question 14

The question explored why education might be under consumed. There were a wide range of responses but typically focused around information failure, positive externalities, lack of income, poor quality education and the opportunity to earn more from working. This was fairly effective but on this question candidates struggled to offer evaluation. Many considered how the government could correct the failure although this was not really focused on the question. The weaker evaluation resulted in weaker performance on this question.

For many this question focused on generating a list of reasons without a detailed chain of reasoning as to why the issue caused the under consumption. This essay does have a small number of brief points but overall offers detail in the analysis and the evaluation is focused on answering the question.

Irrational consumers are consumers that do not maximize their utility. One reason why education might be underconsumed is the fact that people do not see the external benefits and their private benefits from education. This could be caused by an information gap where the government did not provide the citizens with enough information to understand that they gain private benefits like getting a good job, having a high wage, increasing the standards of living. They also do not consider the external benefits of education as it leads to having better doctors and better healthcare, better lawyers, teachers that would develop the economy and the country more.



People do not see the welfare gain ABC that they could gain from education.

Another reason why education might be under consumed would be because of the herding effect. If the person is in a community where his friends or parents have not attended any form of education then they will not be eager to pursue a future on education and that is why only 28% of 25-34 year-old people had university education in Italy. Habitual behaviour could also be a factor as people may not be used to studying as they did not study at school so they would not be able to study at the university and thus will not receive a degree. Inertia could also be a factor as some people would not be too lazy to put in the effort to firstly apply to the university and study and graduate.

A factor that could also influence the statistics would be the affordability of the higher education. If the states offer free university education it may increase their percentage like South Korea with 90% and the USA with 50%. The affordability also depends on the wealth of the household, if there the household cannot afford the expenses of studying at the university like the accommodation, books, materials or even the university fee. Then people would not be able to get a

university degree and education will be underconsumed. For some household it would be more profitable for them to get a job and not get a university degree as they may be in financial problems and in need for a source of income rather than spending on university.

On the other hand, it is hard to determine the exact impact and social benefit from a university degree and people that do not have one, as in some regions there have to be people without degrees that would take jobs as constructors, fishing, truck drivers and other essential jobs that don't require a university. It is also hard to determine whether the private benefit of a university degree would be greater than the cost of it, as the university degree may cost a lot of money and then a graduate may not find a job which will result in a big cost as he will have student loan to pay but having no job offers. The underconsumption also does not depend only on the consumer, there could be other factors like a war in the country that would stop the attending of school, for example what is happening right now in Ukraine where millions of students have stopped their education or the factor could be even the lack of schools or teachers which is a market failure.



Taking into consideration all the things said above, it has been shown that education might be underconsumed because the consumers are not rational and they do not see the benefits of the education, both private and external, are influenced by the other people or cannot afford education. Unless, they do ~~act~~ act rational in their own interest as they can get a higher private benefit from a job without a degree rather than attending the university as they decide that the job would be more profitable or the decision of attending the university ~~does not~~ is not the consumer's but rather of other external factors; in all other cases the reason of underconsumption is the fact that consumers act irrational.



Another excellent essay.

They start with an accurate definition of irrational behaviour. They link external benefits with information failure and how the government could have done better in filling the gap.

The external benefits diagram has been drawn accurately with the correct welfare gain triangle drawn which is integrated into the analysis.

The candidate talks about the herding effect linked to how parents can influence their children not to invest in education. Habitual behaviour and inertia are also looked at although the development of these is briefer.

Affordability is considered as is the fact working can be rewarding.

Evaluation is offered. Firstly that it is difficult to value the benefits and costs of education. Other factors including conflict impacting education levels are considered as an alternative. They offer a conclusion that explores whether it is rational or irrational.

Overall the candidate achieves 17/20.



Many candidates explored a wide range of reasons for the under consumption but often did not discuss each in enough detail. It would be better to look at fewer reasons in more detail to be able to get the level of analysis.

## Paper Summary

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

### Section A: Multiple Choice

- The forward market topic needs additional work as few could select the relevant example
- The government failure question saw many select a market failure. Offering examples of each and getting them to explain why each is market failure or government failure would be a useful exercise.

### Section B: Short Answer

- When asked to draw a diagram all marks can be achieved through the diagram and no written explanation is required. The majority of candidates supported their response with a written explanation when in fact the diagram had achieved full marks.
- Question 8 saw many calculate the percentage point change in capital and consumer goods but this needed to be explicit that this is a percentage-point change.
- Question 11 saw a £6 per kg tax introduced on salt. Many did not understand that this is specific tax and required a parallel shift in supply.

### Section C: Data Response

- On 12(b) when giving examples it is important that these are taken from the context
- When one shift is needed on the diagram, like in 12(c) explicit use of data is also required.
- On 12 (e) where a diagram is requested it is important to offer a relevant diagram to be able to access Level 3 for knowledge, application and analysis.

### Section D: Essay

- Define the key terms relevant to the question.
- Diagrams should be drawn where helpful and many candidates successfully incorporated a maximum price diagram.
- Candidates that did best were able to apply to the specific question and use relevant examples that fitted with why people under consumed education or the impact on the rice market.

## **Grade boundaries**

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

<https://qualifications.pearson.com/en/support/support-topics/results-certification/grade-boundaries.html>

