

# Examiners' Report

Summer 2014

Pearson Edexcel GCE in Economics 6EC01 Paper 01R



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#### Introduction

This exam was taken by around 550 students all outside of the UK. The paper was designed to be, and indeed proved to be, of an equivalent standard to that of 6EC01/01. Question 10 was a more popular choice than question 9, with just short of 70% of the students opting for this. Question 10 also had a higher mean score (26.2 as opposed to 22.6 for question 9). This difference was due to slightly stronger performance across all parts of question 10, rather than a grossly different mean score on any one part of the question.

# Q1

A majority of students were able to select the correct key for this question, and to offer an acceptable definition of a production possibility frontier. Students now understand that they must refer to all resources being fully or efficiently employed in order to access that definition mark. Most students were also able to identify the increased potential output of textiles, although when giving the figures from the diagram, most did not notice that the units were **thousand** tonnes. A good number of students were able to suggest what might have led to this increased efficiency in textile production, for example advancements in technology, or an increased use of the division of the labour. As is fitting for the first question on the paper, which in this case was targeted at E grade students, 42% of students scored full marks here, and almost 75% achieved 3 or 4 marks.

However, students often struggled to access the available knock-out marks, as their explanations of why other keys were incorrect were incomplete. For example, stating that the answer could not be D as the opportunity cost of producing wheat had not decreased, without explaining how this was known to be the case (ideally this would be done through the calculation of the opportunity cost before and after the efficiency improvements), or could not be B, as the output of wheat had not decreased, again without reference to the diagram. Students must remember that they need to do more than simply state that the opposite of an incorrect key is true in order to gain a knock-out mark.

# Q2

Practically all students were able to select the correct key in answer to this question. Most could also give an acceptable definition of the 'division of labour', although in some cases these were incomplete or too vague, referring only to each worker completing a task. As the mark for selecting the correct key was really awarded for identification that increased division of labour would lead to greater productivity, students needed to explain why this might be the case in their explanation, rather than simply state that it was, to get a mark. For example, statements that the division of labour led to 'quicker production', increased efficiency or productivity alone were not rewarded; students needed to refer to the repetitive nature of tasks under specialisation, the shorter training period, or less time spent switching between tasks in order to gain marks. Up to two marks were awarded for such explanations. For most students who were awarded a third explanation mark, this was for application to the motor industry: explaining how division of labour might be used in the production of cars. Students do need to remember to apply their answers to the specific contexts of questions where possible. 3 out of 4 was the mode score here.

Students found it relatively difficult to achieve knock-out marks in this question also, as attempts at this mostly simply negated the incorrect keys, for example, 'the answer can't be C as this would reduce productivity'. Many students also confused the concepts of (total) production and productivity when trying to knock-out incorrect keys, particularly in the case of option A.

# Q3

Students found this to be a very challenging question, and a good number selected the wrong answer (option C being the most common). There were two main reasons for this confusion:

- Students misread the question, and explained the effect of an increase in price from P<sub>e</sub> to P<sub>2</sub> (hence answer C quantity demanded will decrease); or
- Students didn't understand the difference between changes in demand and quantity demanded, and between supply and quantity supplied. Many students were able to identify the surplus/excess supply that existed at price P<sub>2</sub>, but thought that supply would fall (i.e. the supply curve shifts to the left) to eliminate this.

In relation to the latter point above, many students who selected the correct key then demonstrated this confusion by writing that a decrease in price from  $P_2$  to  $P_e$  would cause a decrease in 'supply' and an increase in 'demand'.

Relatively few students annotated the diagram to show the surplus/excess supply correctly. Many shaded the triangle created by the demand curve, the supply curve, and the price level  $P_2$  and incorrectly labelled this area 'surplus'.

A minority of students thought that this was a question about minimum price or buffer stock schemes, as they wrongly interpreted a partly familiar looking diagram.

This meant that this question was an excellent discriminator, and allowed the most able students to demonstrate a clear and concise understanding of the working of the price mechanism to clear markets. Around 20% of students achieved each mark from 0 to 4 out of 4. Overall this question had the lowest mean score of any of the eight supported choice questions (1.86).

# Q4

This question was generally very well answered (with 4 out of 4 being the mode score), and the vast majority of students were able to identify the correct key, give a definition or formula for the cross price elasticity of demand, and explain that complementary goods have a negative cross price elasticity of demand. If students failed to gain a third mark for their explanation, it was usually because of a lack of application: for example explaining the relationship between changes in the price of 'good X' and the demand for 'good Y', rather than specifically applying their knowledge to petrol and motor vehicles; or similarly drawing a diagram to represent complementary goods, but labelling the axes 'Price of good X' and 'Quantity of good Y', rather than making direct reference to the two goods in question.

A good number of students did earn a mark for knocking out one of the incorrect options. Students should remember, however that a different reason needs to be provided for each knock out, so writing, for example, 'The answer cannot be A, C or D because these are all pairs of substitute goods which have a positive cross elasticity of demand' would only gain a candidate one knock out mark, not three.

# Q5

This was a relatively challenging question for students, as it focused on the meaning of income inelastic demand, rather than the distinction between inferior and normal goods that students are perhaps more confident with. The vast majority of students were able to define or give the formula for the income elasticity of demand accurately, but relatively few went on to use this to calculate the percentage change in demand for meat that would result in both countries were incomes to increase by 10%. Definitions of income inelastic demand tended to be insufficiently precise to merit the available mark: students must refer to the change in demand being **proportionately** smaller (or smaller as a percentage value) than the change in income, rather than just being smaller.

A good number of students thought incorrectly that a YED of +1.0 represented either income inelastic demand (in which case they selected option A as the correct response), or income elastic demand - knowledge of unitary elastic demand was relatively rare, and so teachers would do well to make sure that this concept is understood.

Students should remember that to earn a knock out mark they need to do more than state that the reverse of the key is the case. For example, a number of students wrote that the answer could not be D 'because the demand for meat is **less** responsive to changes in income in both countries than the demand for tobacco', without explaining how they knew this to be the case.

#### **Q6**

Students tended to achieve good marks on this question, as they were able to correctly annotate the diagram to show an increase in supply, identify the areas representing initial and new consumer surplus (or the change in consumer surplus), and define consumer surplus. 55% of students achieved 4 out 4 marks.

Students should always annotate the diagram given to them rather than spend time drawing the same diagram out again themselves. Students should also remember that they must label or name shaded areas in order to gain the marks available for identifying them - simply shading an area is insufficient.

# The majority of students were able to identify the correct key for this question, and to offer both a definition of a 'subsidy', and an explanation that its effect was to reduce the costs of production. Rather surprisingly, far fewer students annotated the diagram given to show either the new equilibrium price and output, or (even less common) the subsidy area. Those who did either tended to earn full marks for this question. There was also a mark available for explaining the US Government's motivation behind offering the subsidy, but to be awarded this mark, students had to do more than simply identify that it would cut carbon emissions, as this was referred to in the question. Instead we were looking for either an explanation that this would reduce external costs, or a more detailed description that carbon emissions would fall because biofuel and traditional fossil fuels were substitute goods, so as the price of biofuel fell, demand for fossil fuels would fall also.

Generally students had a sound understanding of the meaning of a 'unit' subsidy, and often linked this to a parallel shift in the supply curve, rather than a pivotal shift.

Relatively few students managed to receive knock-out marks for this question, as knock-outs tended to be insufficiently explained, and/or only include material which had been awarded previously, for example: 'A subsidy has the effect of reducing production costs (1 mark). The answer cannot be D because a subsidy would have the effect of reducing production costs' (0 additional marks).

As with question 6, students should not spend time drawing out their own version of a diagram that is given to them, but should simply annotate the printed version.

# **Q8**

This was a challenging question for students that discriminated well between those of differing levels of ability. This question had the second lowest mean score of those in Section A (2.01), and the mode score was 2 out of 4. Approximately equal numbers of students selected options A, B (the correct key) and C. Those who chose A and C did not take notice of the context of the question: the equilibrium market wage rate was well above both the old and new national minimum wage rates. Students must be prepared to think through a question in the exam, rather than simply rely on recall of learned analysis. Those who selected option C also confused an increase in supply (an outwards shift of the supply curve) and an increase in quantity supplied (a movement along the supply curve) - a change in wage rates would cause the latter, not the former. Definitions of a national minimum wage rate often did little more than repeat the words 'minimum' and 'wage'; students should be wary of this. Additionally around half of students only annotated the diagram provided to show the new national minimum wage level.

# Q7

# Q9(a)

This was a very well answered question. 80% of students achieved full marks, and the mean score was 3.58. Students tended to draw clear demand and supply diagrams, correctly illustrating the increase in demand for potash. Attention should be paid to making sure that diagrams are fully and accurately labelled wherever possible (for example the axes and the equilibria). A number of students did illustrate increases in both supply and demand, which meant that they were only able to earn a maximum of two marks for their diagram (although could still gain full marks overall for the question).

Students were able to earn the fourth KAA mark through either using the data to identify the size of the price rise, or to identify a factor that had caused increased demand. In respect of the latter, a majority of students simply referred to the 'soaring global demand' for potash, without giving a reason for this in terms of either moves to more intensive farming practices or a growing world population. In this type of question the mark is awarded for students **linking** an event in the market to its effect on demand or supply (i.e. both parts of the chain must be present to earn the mark), rather than simply identifying the direction of the change in demand or supply.

# Q9(b)

Most students managed to get some marks on this question by defining price elasticity of supply and perhaps identifying one or two relevant factors, however responses that gained five or six marks were relatively uncommon (accounting for only 12.4% of scripts). We were looking for a good understanding of what a 'low' price elasticity of supply meant (i.e. price inelastic supply), along with an applied explanation of why this might be the case. In terms of the level of application, students needed to write about the likely length of time required to, for example, gain permission to build a mine in the National Park, construct the mine and all the associated infrastructure, recruit/train the necessary labour etc.. Many students simply wrote about a 'long production time' without really engaging with the context of the question and the data provided.

Weaker students tended to ignore the reference to the short run in the question, and instead focus their answer on the million plus year time period necessary for an ocean floor to turn into potash deposits. Any reference to the long run in candidate answers, either in terms of how supply might become more price elastic in the long run, or why supply might continue to be price inelastic in the long run, was not rewarded.

# Q9(c)

Few students used the data on the size of the price fluctuations from Figure 1 to illustrate or contextualise their responses - there was a mark available for this.

Analysis of the likely problems of fluctuating prices was generally sound, although some students struggled to develop their points sufficiently; use of a supply and demand diagram to show how changes in price could lead to changes in revenue would often have been beneficial here.

Evaluation was far more challenging, and only the strongest students were able to identify and develop two relevant evaluative points. A discussion of

the role of price elasticity of demand in determining the effect of price fluctuations on revenue was one of the best ways of gaining evaluation marks here, as was use of the data provided to suggest that potash mining was likely to be profitable even if prices fell dramatically. Some credit was given for the suggestion that the government could intervene to stabilise prices in the market, but only up to a maximum of two evaluation marks, as there was no suggestion of this in the data, and it was not directly relevant to the question.

Two fairly common mistakes in answering this question were to:

- Discuss possible problems to stakeholders other than producers (for example consumers, or the government); and
- Discuss the likely **causes** of volatile potash prices, rather than their effects.

No marks were awarded for either of these. For the higher mark questions in particular, students should be encouraged to read and re-read the question before and during writing their answer.

#### Q9(d)

Most students made good use of the extract in answering this question, and attempted to give a balanced answer, considering the arguments both for and against the building of the mine. The main factor that constrained marks for a large number of students was the tendency not to answer the question set, but instead to focus entirely on the possible external costs of the mine, without considering the other relevant arguments for and against its construction. It is very important that students answer the precise question asked, rather than a similar question that they might have answered previously.

Students were rewarded for macroeconomic arguments where relevant (for example the possible improvement in the UK's balance of payments on current account, or the positive multiplier effects from the increased employment in the region), although the strongest students were able to add to their analysis an appreciation of the likely significance of one mine to the national accounts - for example, would it really lead to a noticeable improvement in the government's budget balance?

# Q9(e)

Students struggled to score high marks on this question for two reasons:

• They struggled to find the right balance between identifying different factors that would influence the supply of labour, and developing/explaining each point in sufficient detail. Students tended to either present a list of many factors, without enough development of each, or to focus on just one or two factors. Taking this latter approach often meant that they strayed into unrelated areas, for example drawing a diagram to show the impact of a national minimum wage, and explaining the likely effect on labour demand and unemployment, rather than just the effect on labour supply, as per the question.

• Students of all ability levels found evaluation very challenging on this question, both in terms of identifying and developing evaluative points.

Weaker students were sometimes confused between labour demand and labour supply, and wrote about the demand for potash (or another product) etc. as determinants. No marks were awarded for this.

Although there was a cap in place on knowledge, application and analysis marks if students did not answer in the context of a specific industry, this was applied to very few students' responses, as most made at least an attempt to apply their answers, and the best answers included much of this. There was some evidence of students having issues with timing, and so not having enough time to write a full answer to this question, but the problem seemed more to be the issue of not having enough to write in terms of analysis and evaluation.

# 10(a)

Students were generally able to give relevant data reference in their answer to this question, and to draw a demand and supply diagram showing an increase in demand. Far fewer were able to give a definition or formula for (total) revenue, and/or to annotate their demand and supply diagrams to show either the original and new revenue areas, or the area representing the increase in revenue.

A small number illustrated increases in both demand and supply on their diagrams, which meant that they were unable to gain the maximum four marks available for a correct diagram.

# 10(b)

Practically all students were able to identify two relevant factors, usually an increase in advertising/promotions for bottled water, and the increased desire to be 'healthy'. Students found it more challenging to expand on these factors, to explain why they would cause an increase in demand for bottled water. Ideally we were looking for the use of an economic concept in this development, for example, how bottled water was seen to be healthier than 'substitute' goods like fizzy drinks, or how successful advertising changed consumers' tastes and preferences for goods, leading to an outwards shift of the demand curve for that product. Demand and supply diagrams were credited here if relevant and correct.

# 10(c)

Definitions or formulae for the price elasticity of demand tended to be given accurately, but explanations of price elastic or inelastic demand were often too vague, not referring to relative proportions or percentage changes, but rather just to a change in price leading to a 'large' or 'small' change in quantity demanded.

Most students were able to discuss the extent to which substitutes were available for bottled water, and what this meant for the price elasticity of demand, and related to this, the degree to which bottled water was a necessity. Some also brought in ideas of the percentage of income/expenditure spent on bottled water, and the increasing focus on healthy living and the promotion of bottled water. Students could argue that demand was either price elastic or price inelastic, and then use the opposite argument in evaluation.

Some weaker students focused more on factors that would determine the demand for bottled water, rather than the price elasticity of demand, and explained why demand might increase or decrease in certain situations. Some students also strayed into discussing factors which would affect the price elasticity of supply of bottled water, such as the level of spare capacity in the bottled water industry, the availability of water as a raw material, and the ease with which new firms could enter the market.

# 10(d)

Students are now very familiar with this style of question, and were able to gain good marks for knowledge, application and analysis by defining external costs, explaining the private and external costs of bottled water consumption and production and - usually, but not necessarily - drawing a diagram to show a negative production externality. Good use was made of the extracts in identifying the costs involved. Students should note how the four marks are allocated for an externality diagram, in order to earn all of them, as some students shaded but did not label/identify the welfare loss area, and/or did not identify the free market and social optimum equilibria. Students found evaluation more challenging in this question, explaining the mode score of 8 marks and the mean score of 7.69 marks (8 out of the 14 marks were awarded for KAA, and 6 for evaluation). Where students did manage to make evaluative comments, they tended to rely on general remarks such as 'however it is difficult to put a monetary value on external costs', rather than making points which were specific and applied to the case of bottled water. This ability to apply general learnt points is one of the defining characteristics of a high grade student.

Many students wrote that there were many external benefits from the production and/or consumption of bottled water, but then gave examples of private benefits, for example improved health for consumers, or higher incomes/profits for producers of bottled water. While it was acceptable to consider the magnitude of any private benefits in relation to any private costs, we were looking for students to not confuse private and external benefits within their explanations of this point.

# 10(e)

Definitions of 'indirect tax' tended to be a little vague in response to this question. As the question itself referred to an indirect tax on bottled water, we were looking for more than 'an indirect tax is a tax on goods and services' as a definition, as this just repeated the idea from the question. Definitions and diagrams of either specific or ad valorem indirect taxes were accepted.

The vast majority of students were able to draw an accurate supply and demand diagram showing a decrease in supply, with the original and new equilibria labelled, although far fewer also showed the area representing total tax revenue, or the areas representing consumer and producer tax incidence. A small minority of students thought wrongly that as the tax would act to increase the price of bottled water, this would cause an inwards shift of the demand curve.

Written analysis of the likely effects of the tax was generally good, and students were able to explain a good variety of different effects. Students

should remember that in a question like this, explanations of effects that have either a negative or a positive impact on the economy is all knowledge, application and analysis, and not evaluation. For example, some students wrote that 'this tax could internalise the external costs of production, however, it may lead to unemployment as firms reduce the size of their workforce to try to reduce their production costs'. Both of these points are identifying and explaining possible impacts of the tax, and so are awarded analysis, rather than evaluation marks.

Evaluation was really then the discriminating factor in determining the marks awarded for this question. Students did struggle to both make relevant evaluative points and, particularly, to develop these. Most responses did not go beyond citing the generic points of 'it depends how large the tax is', 'it depends how long the tax is in place for', and 'it depends on whether demand for bottled water is price elastic or inelastic', without much explanation or expansion on these points. Reflecting this, as with 10(d), the mode score was 8 out of 14 marks.

# Summary

The quality of responses to this paper was broadly in line with previous exams, and with the 6EC01/01 paper. There were some excellent scripts, however in general to improve marks students should:

- Take careful note of the units on any Figure (chart or table), and use these in their response;
- Remember that they need to do more than simply state that the opposite of an incorrect key is true in order to gain a knock-out mark;
- Remember that application marks are often awarded within Section A (supported choice questions), and so apply their responses to the specific context of the question wherever possible;
- Annotate any diagrams that are given to them, rather than spending time drawing their own versions of the diagram;
- Read and re-read the question before and during writing their answer, particularly in the case of the higher mark questions in Section B. This will help to ensure that they don't mis-read the question and that they tightly focus their response on the precise question set.
- To access the higher grades, students need to practise their evaluation, both in terms of identifying relevant evaluative points, and being able to develop these. The key to this latter aspect is often in applying a fairly general point to the specific context of the question.

# **Grade Boundaries**

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

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

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