

Examiners' Report/  
Principal Examiner Feedback

Summer 2016

Pearson Edexcel GCE  
in Economics (6EC01)  
Paper 01 Competitive Markets: How  
they work and why they fail

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Summer 2016

Publications Code 6EC01\_01\_1606\_ER

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## **Introduction**

Overall the legacy paper was well received and it was pleasing to note a good standard of responses. There were a significant number of superior answers which scored very high marks, particularly in the supported choice section of the paper. Few candidates struggled to answer at least some of the questions on the paper. Indeed, there were few very weak scripts, which reflects the two years that most candidates had in studying this subject.

However, there is scope for improvement, especially in maintaining relevance to the questions set in the for the data response questions. Some candidates appeared to just write down their notes on particular topics without considering which parts were relevant to the question set. 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 practice papers under timed conditions to strengthen exam skills.

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

Most candidates found this method of testing highly accessible. The mean score for the supported multiple choice questions in June 2016 was 22.52 out of a total of 32 marks. This was marginally lower than the previous two years which had recorded 24.0 marks.

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, Q1 (Production possibility frontier), Q4 (Price elasticity of demand and total revenue), Q7 (External benefits and the market for vaccinations) and Q8 (Buffer stocks). Marks are usually made available for using suitable diagrams to answer questions, for example, Q2 (Signaling function of the price mechanism) and Q4 (Increase in producer surplus).

The foundation of this paper is an understanding of the price mechanism model and its limitations. Any suitable opportunity to apply this model should be taken including the use of the rejection technique. However, with the new A' Level economics syllabi in place this method of achieving marks will no longer be available on future exam papers.

## **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 or 3+3) and a 10-mark question comprises 4 evaluation marks (2+2). 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. Forty-nine per cent of candidates selected Question 9 (The market for iron ore) and fifty-one per cent chose Question 10 (Renewable energy in the UK). The mean score for Q9 was 26.85 and for Q10 30.19. The most likely reason for this discrepancy is the higher marks achieved in Q10(c) on the benefits of division of labour and Q10(d) concerning the effects of government subsidies to renewable energy firms.

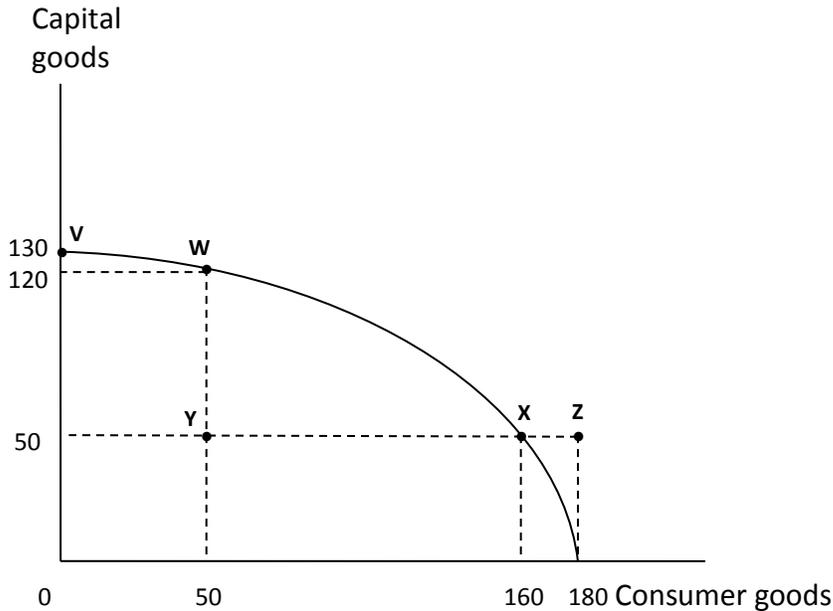
Overall, questions 9(a), 9(c), 10(a) and 10(b) tended to differentiate well at the lower end of candidate performance whereas questions 9(d), 9(e), 10(d) and 10(e) differentiated effectively at the higher end.

### Q1: Answer D

Mean score: 2.74 out of 4 marks

This was a highly accessible question with almost 40 per cent of candidates achieving full marks and only 5 per cent recording no marks. Most answers achieved marks through defining a production possibility frontier and explaining the importance of capital goods for increasing economic growth. This was often followed by use of the rejection technique, particularly for incorrect options A, B and C. For example, option A is incorrect since the opportunity cost of 50 consumer goods is 10 capital goods; option B is incorrect since there is full employment of resources at position V as it is on the production possibility frontier; option C is incorrect since the opportunity cost of 180 consumer goods is 130 capital goods.

A minority of answers annotated the diagram in the question to depict economic growth through an outward shift of the production possibility frontier.

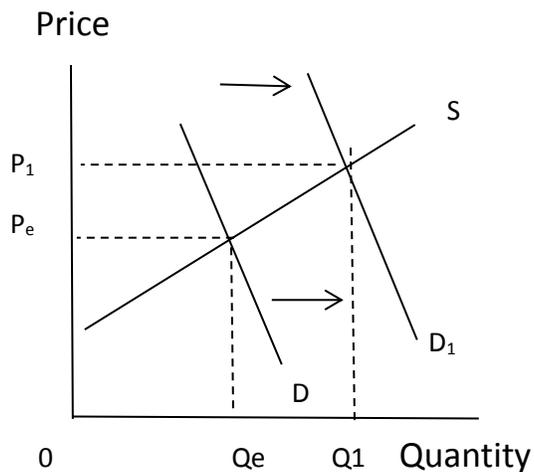


The most common error was for candidates to select option A, assuming the opportunity cost of producing 50 consumer goods to be 50 capital goods, depicted as position Y in the diagram. However, this location is within the production possibility frontier.

## Q2: Answer C

Mean score: 2.52 out of 4 marks.

This was a more searching question where just over twenty per cent achieved full marks. There were many vague definitions of the price mechanism and limited explanations of its signaling function. The most suitable definitions referred to the price mechanism as a device used to allocate resources through the interaction of demand and supply in a market. Development of the signaling function was often undertaken with a diagram depicting an increase in demand for a good, leading to a higher price and so informing firms to raise production, to gain more revenue and profit.



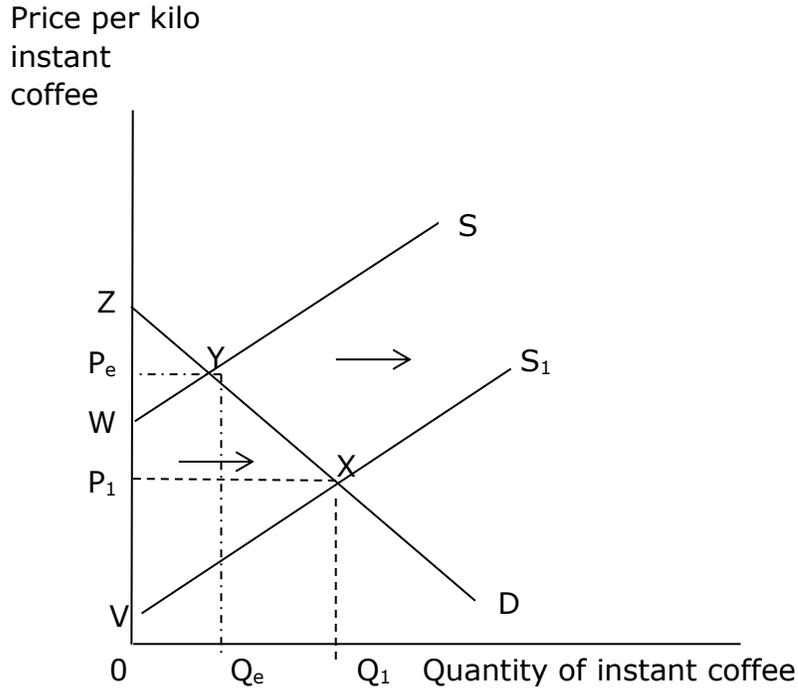
It was possible to achieve maximum marks with a written explanation to this effect rather than use a demand and supply diagram. A popular rejection was option D, suggesting that government intervention to set minimum prices would typically be used to correct market failure as in the case for floor prices for alcohol.

The most common limitation was to repeat the correct option statement without offering further development.

**Question 3: Answer B**

Mean score: 2.98 out of 4 marks.

Just over half of candidates secured full marks, usually by defining producer surplus and then offering suitable diagrammatic analysis. This included shifting the supply curve for instant coffee outwards, identifying the original ( $P_eYW$ ) and new ( $P_1XV$ ) areas of producer surplus.



The most common error was for candidates to misread the question and select incorrect option A (a successful advertising campaign promoting the health benefits of tea).

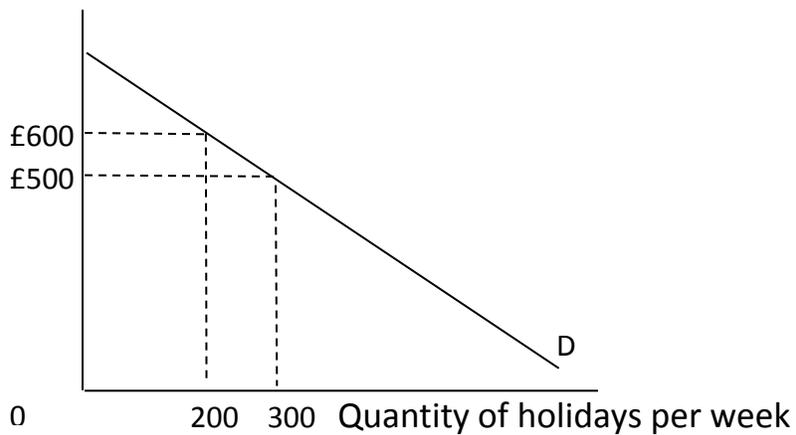
#### Question 4: Answer B

Mean score: 2.93 out of 4 marks.

This was a highly accessible question where just over a third of candidates achieved full marks and less than one per cent secured no marks. It tested candidate understanding of the relationship between price elasticity of demand and total revenue. Most answers included an accurate calculation of a £30 000 fall in total revenue. However, only a minority of responses used the data to further calculate price elasticity of demand for holidays in Ibiza (-1.65). Consequently, it differentiated effectively between the quality of responses.

One fairly common mistake was for candidates to suggest that total revenue has decreased by £3000 or £300. Others suggested that it increased by £30 000.

Price per holiday to Ibiza £



**Question 5: Answer D**

Mean score: 3.08 out of 4 marks.

This was the highest scoring question where the majority of candidates selected the correct option and followed up with a definition of income elasticity of demand. Over forty per cent achieved full marks. The best responses identified that Meat is income elastic in demand (1.2) since it is above 1 and that fish is income inelastic in demand (0.7) as it is below 1.

Some candidates identified income elasticity of demand for meat being higher than fish, since 1.2 is greater than 0.7. However, this did not offer sufficient development of the correct option statement where a mark had already been awarded for recognising this point.

A minority of responses incorrectly selected option C which stated that fish, milk and eggs are inferior goods. This revealed confusion between normal and inferior goods.

**Question 6: Answer A**

Mean score: 2.86 out of 4 marks.

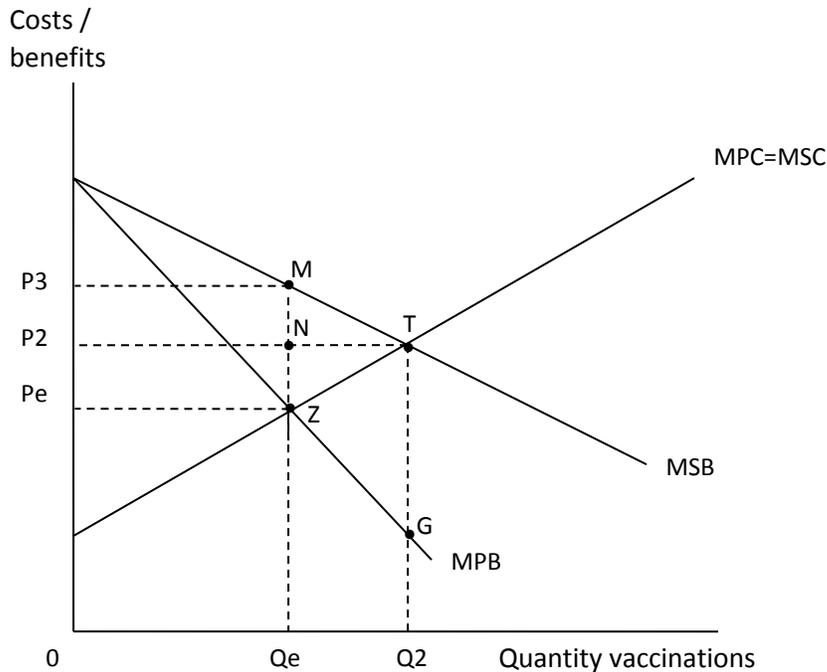
This question provided candidates with an opportunity to achieve up to two marks by defining key concepts such as market failure, public goods and a free market economy. Following this, the best answers offered an explanation of the free rider problem, for example, people are able to consume street lighting without paying for it once it has been provided – and so offering little incentive for firms to supply sufficient quantities of it as they cannot make a profit.

The weakest responses usually struggled to explain the free rider problem. Despite this limitation, many candidates achieved full marks by rejecting incorrect keys – the most popular being option B, where a rise in unemployment from an increase in the national minimum wage is an example of government failure rather than market failure. Just over forty per cent achieved full marks.

### Question 7: Answer C

Mean score: 2.77 out of 4 marks.

This was a question on external benefits from the provision of vaccinations in a free market. Many candidates annotated the diagram provided in the question identifying the area of welfare loss (MZT) and explaining how welfare gain could be made by increasing output from the free market equilibrium  $Q_e$  to the social optimum equilibrium  $Q_2$ . This was awarded two marks.



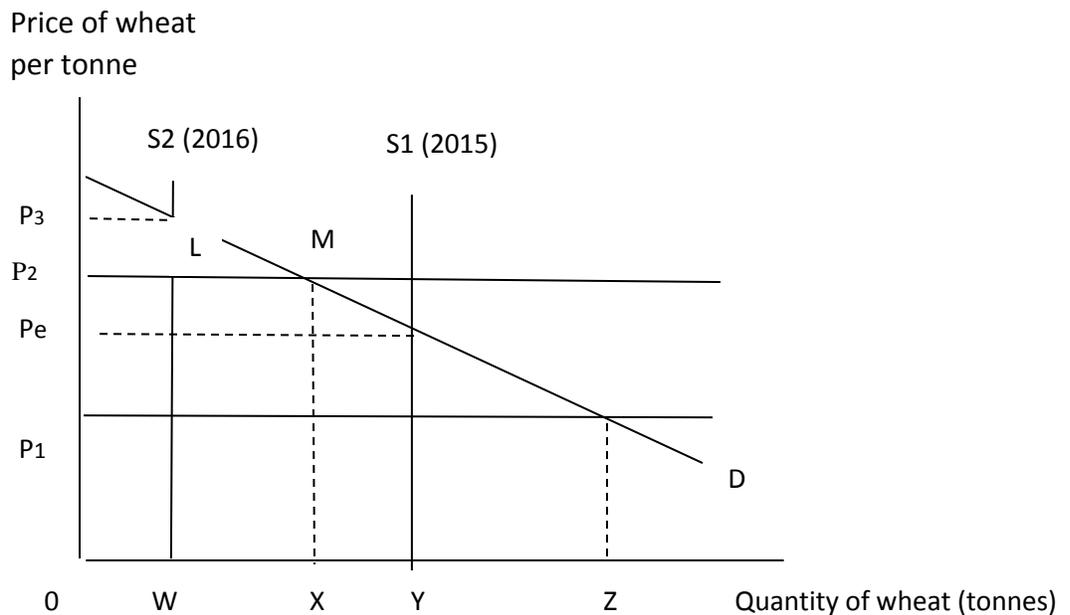
A further mark was often gained by defining external benefits. Just over a third of candidates achieved full marks.

However, relatively few answers applied to the context of the question. Only the very best responses explained the external benefits from increased provision and consumption of vaccinations, for example, a reduction in the spread of infectious diseases and increased productivity and profits in the workplace. Furthermore, a common error involved candidates defining external costs rather than external benefits.

### Question 8: Answer B

Mean score: 2.64 out of 4 marks.

The buffer stocks question was another opportunity for candidates to annotate the diagram provided to gain marks. It was possible to achieve the three explanation marks by the following: identifying that the free market price ( $P_3$ ) would rise above the maximum price ( $P_2$ ) in 2016 if there was no government intervention; recognizing that quantity WX of wheat would have to be released from government stockpiles to bring the price down to  $P_2$ ; highlighting the area of government revenue, for example, WXML.



A mark was also available for explaining a buffer stock in terms of a government agency buying wheat in times of a good harvest and stockpiling it so that it could be sold in times of a poor harvest.

Relatively few responses offered much in the way of annotation and consequently less than a quarter achieved full marks.

## **Question 9: The market for iron ore**

### **Q9(a):** Mean score 3.43 out of 4 marks

The question on the causes of falling iron ore prices was well answered, with two-thirds achieving full marks. This reflected effective use of Figure 1 and Extract 1 which referred to falling consumption from China and increasing production from the world's four largest iron ore firms. Many candidates offered a suitable demand and supply diagram depicting the fall in price of iron ore.

The main reason for candidates not achieving full marks was due to omitting the increase in supply of iron ore.

### **Q9(b):** Mean score 5.31 out of 10 marks

The question on the effects of falling iron ore prices on iron ore producers differentiated well between responses. The modal score was six marks, with some eighteen per cent of candidates achieving this. The best answers remained focused on the question, investigating the impact on revenue, profits, employment, wages, investment and share prices for iron ore producers. Effective use of the data revealed that some firms are likely to experience losses and may be forced to exit the industry.

Popular evaluative comments included reference to the magnitude of the fall in iron ore prices, but sometimes this was more of a generic response rather than making proper use of the data. For example, Figure 1 shows a 30 per cent fall in iron ore prices over a two-year period – yet many candidates failed to discuss this type of information.

Another popular evaluative comment referred to the possibility that iron ore prices would rise in the future as demand from China and India recover and grow.

Around a third of candidates gained four or less marks. These responses often strayed away from the question, considering the impact on consumers and government rather than iron ore producers.

### **Q9(c):** Mean score 3.48 out of 6 marks

Most candidates offered a suitable diagram depicting an increase in the supply of steel, following the fall in price of iron ore. These answers typically identified that falling iron ore prices lead to lower production costs for steel producers. However, little development was offered to secure maximum marks. Consequently, the modal mark was five marks.

Over a quarter of responses achieved one or no marks. Usually these answers confused iron ore and steel as substitutes or complementary goods and so drawing incorrect diagrams.

**Q9(d):** Mean score 7.45 out of 14 marks

This was another question that differentiated well between the quality of answers. Given that indirect taxation is a popular topic on past exam papers, it was surprising that many answers incorrectly shifted the demand curve rather than the supply curve. Also many answers incorrectly identified the tax area using the original equilibrium position rather than the new one. Another common misconception was to assume that the indirect tax would increase total revenue and profits for iron ore producers.

However, the good responses achieved the full eight knowledge, application and analysis marks by defining indirect taxation, drawing an accurate diagram depicting both the consumer and producer tax incidences and finally, explaining likely effects in terms of lower profits, funds for investment and employment.

The very best responses tended to evaluate the effects of the indirect tax by discussing the significance of price elasticity of demand for iron ore and how mining companies might respond through measures to increase efficiency. However, only a minority of responses appeared to follow through with this approach.

**Q9(e):** Mean score 7.18 out of 14 marks

Like the previous question, there was good differentiation in the quality of candidate answers, revealing a wide distribution of marks. Most candidates seemed to have a good idea what tradable permits were, although a significant minority either ignored or did not understand the idea of 'tradable'. What candidates wrote was generally fine, the trouble was they didn't write very much! This may have been due to time running out, or because they didn't know what else to say.

Generally, the idea of incentives to reduce pollution and the raising of government revenue were the most popular points. However, relatively few scripts referred to the price mechanism as a method to create a market for pollution and so internalise external costs or, the idea that permits could be banked for future use. Similarly, many responses missed the obvious point of it being a means to achieve the government's carbon emissions reduction target.

For evaluation, the negative implications of additional costs to firms was carried out fairly clearly, but points on the over-pricing or underpricing of permits were often poorly developed.

There was a tendency among weak responses to focus on the benefits of a reduction in carbon emissions – ignoring the issue of how effective tradable permits are in achieving this aim.

## **Question 10: Renewable energy in the UK**

**Q10(a):** Mean score 3.23 out of 4 marks

Whilst more than fifty per cent of responses achieved full marks, the weaker ones failed to achieve a high score because they simply stated that renewable energy resources are renewable and non-renewable are not. Furthermore, some answers lacked development, for example, it was insufficient just to state that renewable resources are infinite and non-renewable resources finite.

The best answers referred to renewable energy as a sustainable resource where careful management and consumption does not diminish its stock level and so remains available for future generations. In contrast, the consumption of non-renewable resources diminishes its stock level over time and so is unlikely to be available for future generations.

**Q10(b):** Mean score 4.01 out of 6 marks

The modal mark was thirty-five per cent, revealing that many candidates were able to identify and offer some development of two benefits from increasing energy generated by renewable resources. The most popular benefits focused on the reduction in carbon emissions and the creation of employment. However, just eleven per cent achieved the full six marks indicating that further development of the benefits was required than just using the information in Extract 1.

**Q10(c):** Mean score 6.38 out of 10 marks

Candidates generally did very well on this question. Most defined and gave examples of division of labour in wind power production, for the first two marks. This was generally well developed, with reference to increased productivity, lower unit labour costs, speed of production and quality. Consequently, many scored five or six Knowledge, application and analysis marks. The most common error was to automatically assume the division of labour would create more jobs through the allocation of specific tasks.

Most responses gained some evaluation marks by referring to possible limitations of the division of labour, for example, monotony, over-dependency, de-skilling and structural unemployment.

**Q10(d):** Mean score 8.80 out of 14 marks

Although in many ways similar to Q9d, this question was generally better answered. Most candidates secured two 'introduction' marks by defining subsidies and explaining their effects on reducing production costs. A further two or three marks was gained by offering a suitable diagram (though a common mistake was to mislabel the subsidy area by using the original quantity). The responses usually went on to consider the impact on profits and jobs, scoring more marks.

For evaluation, most answers considered the opportunity cost to the government and made reference to the 'lack of competition' (which didn't seem to be well understood), so gained two or three evaluation marks. However, relatively few responses investigated the importance of price elasticity of demand in affecting the revenue of renewable energy firms.

Overall this question differentiated effectively in the quality of candidate answers, revealing a wide distribution of marks.

**Q10(e):** Mean score 7.77 out of 14 marks

This was another question which discriminated effectively between candidate answers. Overall, there were many good responses, with excellent use of diagrammatic analysis; however, a significant number did not explain their diagram, and poor labelling was a problem with many. Nevertheless, almost all candidates defined external costs and offered some application to factors such as the environment, tourism, house prices and house construction.

However, there were quite a number of cases where marks were not awarded when discussing external costs because there was only a reference to 'impact' but no indication of whether this was negative or positive, thus rendering the discussion extremely vague. There was also evidence of candidates running out of time and so their answers ended abruptly.

By far and away, most of the evaluation marks were achieved from discussion of the benefits of renewable energy generation, with only the stronger responses discussing other points such as the types of renewable energy schemes and whether compensation is available for affected communities.



