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# AS

# ECONOMICS

Paper 1 The operation of markets and market failure  
Report on the Examination

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## Section A

### General

This is the first sitting for the new AS specification multiple choice questions (MCQ) and as such the results cannot be compared directly with any previous examination. The multiple choice questions performed as intended and the overall level of difficulty was consistent with the required standard and the examiners' expectations.

The detailed statistical analysis of the results for each question does not indicate any problems which would invalidate individual questions or the test as a whole. The statistical analysis indicates that the questions discriminated effectively between more and less able students and the discriminatory power of the test overall was correspondingly good. All the questions performed within acceptable limits and none were rejected from the test.

The individual question statistics indicate that students found questions 1, 2, 5, 9, 11, 18, and 19 easy or very easy. Question 1, as intended, was very easy in that the vast majority of students answered it correctly, followed by question 11. Question 16 was the most difficult question, followed by question 15, question 3, question 6, and then question 13. The difficulty experienced by students in attempting to answer Questions 3 and 16 is reflected in the fact that each question had a prominent distractor. Question 15 also came very close to having a prominent distractor.

### Individual questions

#### Question 3

This was the third most demanding question in the test (Key D). The difficulty evidenced by students with this question derives either from insufficient attention to all parts of the question, or an inadequate understanding of the assumptions underlying the demand curve relationship. All demand curves are drawn on the assumption that factors affecting demand, other than price, remain constant, Key D. Response A was a prominent distractor selected by the majority of students. This response is incorrect because demand curves are not drawn on the assumption that quantity demanded always increases as price falls. Students should have been alerted to this by the inclusion of the word 'always' in the response. While in most cases demand curves slope downward from left to right it cannot be assumed that this is always the case. A perfectly inelastic demand curve is vertical and the quantity demanded does not vary with price. Likewise, for some conspicuous consumption goods, the demand curve can have a positive slope and the quantity demanded increase with price.

#### Question 6

The more even distribution of responses to the question indicates that the majority of students found the question difficult (Key C) because of poor understanding of the interaction of market demand and supply in relation to the inelasticity of the supply of many agricultural products in the short-run. By their very nature, it takes time for the output of many agricultural products to respond in response to an increase in demand, making the supply of such products price inelastic in the short-run. The resultant interaction of an increase in demand with an inelastic supply curve is a larger increase in price in the short-run in comparison with the longer-run as the price elasticity of supply increases.

**Question 13**

The examiners were surprised that the majority of students had difficulty answering this question correctly (Key C). The question involves a straightforward application of knowledge and understanding of the sources of monopoly power in relation to a firm's long run average cost (LRAC) curve. One potential source of monopoly power is the existence of significant economies of scale due to the continuous decline in unit cost of production as the volume of output increases. Response C is the only one of the four Long Run Average Cost (LRAC) curves shown in the question which displays the required continuous decline in cost as the volume of output increases. The numerical information provided in the stem of the question taken in conjunction with that shown in the four cost curve diagrams also indicates that only the firm represented in response C is able to achieve monopoly power. The market has an annual sales of 400 000 units per year. The firms with the LRAC curves depicted in responses A and B evidence rapidly rising cost at output levels higher than 50 000 units per year. The firm in response D has a constant unit cost of £6. The unit cost for the firm depicted in C falls continuously as output expands beyond 50 000 units per year. This implies that firm C would be able to use its cost advantage to supply the whole market and achieve monopoly power.

**Question 15**

This was the second most demanding question in the test (Key A). Response C attracted a significant number of students which made it very close to being a prominent distractor. Although it is known that many students seem to have greater difficulty with the concept of elasticity of supply than with that of elasticity of demand, the examiners were surprised and disappointed that so few were able to answer this question correctly. All production takes time. The shorter the time period under consideration the less the ability of firms to respond to increased demand and the lower the elasticity of supply. The fact that a good is a necessity, distractor C, is relevant for its elasticity of demand but not its elasticity of supply. Students need to be better prepared regarding why and how elasticity of supply differs from elasticity of demand.

**Question 16**

This was the most demanding question in the test by some margin (Key D). Response A was a prominent distractor with the majority of students selecting it erroneously as the most appropriate answer. The concepts of demand and supply are central to most microeconomic analysis. On the basis of the disappointing performance of many students to this question, and the other questions considered above, the concepts are not sufficiently well understood. In the case of a downward sloping demand curve, the change in the amount spent on a good resulting from an increase in its price has two components. These are the additional revenue per unit sold due to the higher price minus the loss in revenue from the reduction in the number of units sold as a result of the price increase. Students should have known this from their knowledge and understanding of how elasticity of demand affects how the quantity demanded and sales revenue varies as price changes. In answering this question the majority of students merely identified the increase in amount spent by buyers after the price increase, the area RSTY in the diagram, Distractor A, and ignored the loss of revenue, WYUV, from the decline in sales.

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## Section B

### General

The majority of students opted for Context 2 rather than Context 1 and although there were some pleasing answers to Context 1, on average, students performed better on Context 2 than Context 1.

It is pleasing to be able to report that many of the students entered for this first examination for this new AS level Economics specification performed very well. Good knowledge and understanding of economic terminology, concepts and principles was often demonstrated but the application to the context was not always as secure. Attempted application by some of the weaker students was often unconvincing, particularly in respect of the housing market but also, to a lesser extent, with regard to the consumption of tobacco. Students would benefit from being provided with as many opportunities as possible to apply their understanding of economics to a wide variety of real world situations. This could be through discussion as well as by way of written responses to questions set by the teacher.

Some key concepts were not fully understood. For example, the term ‘inelastic’ was often used incorrectly or its use was suspect. The weakest students stated that inelastic meant ‘demand wouldn’t change’ and others said that it meant regulation would be ineffective. When students are applying elasticity to a given situation, they should be encouraged to make it clear which measure of elasticity they are using. Other economic concepts were not used with sufficient precision and accuracy, some of which are indicated below. To communicate clearly and to avoid mistakes that lead to invalid conclusions, it is important that students acquire a firm grasp of basic economic principles.

Many students made good use of diagrams in their answers. However, some of these diagrams were inaccurate or not labelled correctly; students should be aware that credit is not given for a poor diagram. Where appropriate, the use of suitable, fully-labelled diagrams should be encouraged. However, they should only include a diagram when it is relevant to the question.

At least 15 per cent of the marks at AS level depend on a student’s ability to demonstrate quantitative skills. When asked to perform a calculation, students would be well advised to show their working as part-marks may be awarded for the correct method even if the final answer is incorrect.

Selective use of the extracts should also be encouraged. The extracts are there to help the student respond to the questions and can be used to help support judgements. When answering the last part of each context, the quality of the evaluation is a key determinant of the mark awarded. Good quality evaluation requires that judgements are supported by sound analysis and/or evidence. The evidence used to support judgements may be qualitative or quantitative. Some evidence is included in the extracts but it must be used appropriately.

Sound, fully developed analysis should be an essential element of students’ responses to the last two parts of each context question. In the last part, good analysis is the foundation for good evaluation; they go together. Some of the weaker answers to the last part of Context 2, used the extracts extensively but were weak because the underlying economic analysis was missing.

Good students evaluated as they worked their way through their answers to the last part of the context questions but only the very best students provided a convincing, well-developed, supported conclusion. It is a difficult skill that students need to practise. The teacher could provide their students with a good answer to a question which has had the conclusion removed. Students could then be asked to write their own conclusion to help them develop the skill of producing a supported final judgement.

## **Context 1: The housing market**

### **Question 21**

Many students were able to provide an accurate definition of government failure, recognising that government failure occurs when government intervention to correct market failure leads to a less efficient, or worse, allocation of resources. However, the majority provided a definition which showed some understanding but was either incomplete or inaccurate in some respect; for example, by just stating one or more reasons why government intervention might lead to government failure.

### **Question 22**

Given the increased emphasis on quantitative skills, it was disappointing that a sizeable minority of students believed that the correct answer could be obtained by calculating 45% of 2714. However, the majority did the calculation correctly but some lost marks for stating the answer inaccurately; for example, not giving the answer to the nearest whole number.

### **Question 23**

Only a minority of students were able to identify two significant points of comparison and support their comparisons by accurate use of the data. Some students quoted figures without stating the comparison. The important principle is that students need to identify and clearly state a significant comparison which must be supported by accurate use of the data. Quoting the data without clearly stating the significant comparison will not gain any marks.

Some of the weaker students did not understand what is meant by 'a comparison' and just provided a significant feature of each data series. Other errors included not recognising that the second chart showed annual 'changes' in the population and not quoting the data accurately. When students are required to read the figures from a chart or graph, a reasonable tolerance is allowed but some of the figures quoted were very inaccurate.

### **Question 24**

The diagrams presented by a minority of students included so many errors that they failed to gain any marks. Examples of common errors included: axes labelled incorrectly or not labelled at all, curves and coordinates labelled incorrectly or omitted, placing the maximum price above the market equilibrium price, and not indicating the excess demand at the maximum price. However, the majority of students were awarded either 3 or 4 marks for their diagrams.

**Question 25**

This part of the question is marked using a level of response mark scheme that assesses knowledge and understanding, application and analysis. When awarding the mark, a judgement is made regarding the overall quality of the response.

Stronger students generally started their answers by outlining the key characteristics of a perfectly competitive market. They then focused on two or possibly three features and explained why the housing market does not exhibit these features, often drawing on information provided in the extracts; for example, the statement that 'larger firms account for a greater percentage of new house building' or the reference to 'planning regulations'. Many students stated that houses are not homogenous but only the better students illustrated this by mentioning ways in which houses differ. Application of knowledge and understanding to the context of the question, in this case the housing market, matters.

Some students appear to have been drilled to start their answers by defining demand and defining supply; this added little to the quality of their response. Including definitions as part of the introduction is often helpful but the definitions must be relevant to the context. There were also some misconceptions regarding the nature of a competitive market, for example, a number of students incorrectly believed that when a rise in demand leads to an increase in the market price, the market cannot be competitive. Weak students showed little, if any, knowledge of the nature of a perfectly competitive market.

**Question 26**

Whilst many students attempted to explain how market forces operate in the housing market, some did not do so. Given the nature of the question, this was a significant weakness. A response that only considered different methods of intervention could not provide an effective overall assessment of the pros and cons of leaving the provision of housing to market forces.

The rationing, incentive and signalling functions of the price mechanism were mentioned by some but only the best students were able to apply these aspects of the price mechanism to the housing market in a meaningful way. Similarly, some of the weaker students were unable to apply their knowledge of types of government intervention appropriately to the housing market.

Many recognised that housing may be classified as a merit good and used this as the basis of their argument for government intervention. Other students, but not as many, also recognised that inequality in the distribution of income and wealth can provide a case for government intervention.

The extracts were used well by some students but could have been used better by many more. For example, references to planning regulations might have been used to support discussion relating to the possibility of government failure in the housing market. Relatively few students picked up on the reference to government provision of affordable housing. This could have been linked to the problem of homelessness. Some believed that the 'Help to Buy' scheme and providing subsidies to house builders would solve the problem of homelessness.

Many mentioned maximum price controls but some did not relate this to the rental market. They failed to appreciate that imposing a maximum price for houses that are for sale is not a realistic policy. However, some students provided sound analysis and reasonable evaluation of the likely impact of rent controls, using a diagram to support their analysis.

Students often identified government failure and unintended consequences as arguments against government intervention but the application to the housing market, other than in relation to rent controls, was frequently unconvincing.

The best answers included a well-developed conclusion that considered whether or not the housing market should be allowed to operate with only the minimum of government intervention or whether the market is failing and more intervention by the government would improve people's welfare.

## **Context 2: The costs of smoking**

### **Question 27**

Most students showed some appreciation of the nature of a demerit good but only a minority recognised that a key characteristic of a demerit good is that they generate negative externalities in consumption, rather than production. Whilst recognising that a demerit good results in negative externalities in consumption was sufficient to achieve full marks, the best students also recognised that the over consumption of demerit goods can result from information failure and that whether or not a good is classified as a demerit good depends on a value judgement. Students should recognise that not all goods that generate negative externalities in consumption are classified as demerit goods.

### **Question 28**

The majority of students were able to calculate the mean price of a packet of 20 cigarettes correctly to the nearest penny. However, some made silly mistakes by, for example, omitting the pound sign, not stating the answer to the nearest penny or adding up the seven prices incorrectly.



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**Question 29**

The majority of students were awarded full marks for their answers to this question. However, as with question 32, some students quoted a significant feature of each data series rather than make a significant comparison. Whilst it was pleasing that most students quoted the units correctly, some didn't. The units must be quoted for each comparison.

Some students stated that between 2008 and 2009, the price of a pack of 20 cigarettes rose but the quantity consumed did not change. However, many of these students did not make it clear why this was significant over the period 2007 to 2013; they did not state that it was the *only time* during this period that a rise in price was not accompanied by a fall in the quantity consumed.

**Question 30**

Most students recognised that providing vouchers to encourage pregnant women to give up smoking would shift the demand curve to the left. On the whole, students answering this question made fewer basic errors than were made by students answering the equivalent question for Context 1. However, some lost marks by labelling the vertical axis 'Price level' rather than 'Price' and by labelling the horizontal axis 'Quantity demanded' rather than just 'Quantity' or 'Quantity demanded and supplied'. A small minority of students did not include a supply curve on their diagrams whilst some others shifted both the demand and supply curves.

**Question 31**

It is worth re-emphasising that this question and the equivalent question 25 are assessed using a level of response mark scheme; marks are not awarded for each point that is made. It is the overall quality of the response, with reference to the standardisation scripts, that determines the mark awarded.

A fair proportion of the students provided a competent response to this question, achieving Level 3. These students frequently used a diagram to illustrate the effect of imposing an indirect tax on the market for cigarettes. The diagrams were usually backed up by sound analysis, stating that a rise in an indirect tax is equivalent to an increase in firms' costs of production, shifting the market supply curve to the left. They often developed their answers by explaining why the impact on consumption would depend on the price elasticity of demand for cigarettes. Good students also made use of the extracts; for example, by referring to the data in Extract D or 'the illegal importation of tobacco products' mentioned in Extract F.

Weaker answers did not focus on the question and digressed into discussing market failure and the negative externalities of smoking. A significant minority of students believed that an indirect tax levied on cigarettes is represented by a leftward shift in the demand curve. This was usually accompanied by a muddled written explanation.

It was not necessary to include a diagram to achieve full marks for this question but students should appreciate that, where appropriate, the use of a diagram can be useful in supporting their analysis. Diagrams are an important part of an economist's toolkit and it is up to the student to decide when and how they might be usefully employed.

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### Question 32

There were some very accomplished and thoughtful responses to this question. The best answers started by explaining the general case for government intervention in relation to market failure. This was often supported by a relevant diagram and quotes from the extracts identifying some of the negative externalities generated by smoking. However, even some of the better students confused the externalities of smoking, the impact on third parties, with the long term but under-valued private costs, such as the risk of contracting smoking-related illnesses. Also, some students did not appreciate that the negative externalities from smoking are in consumption and not production.

Good students proceeded to assess the relative merits of the different policies that could be employed to reduce smoking. However, some weaker answers focused on the case for, and occasionally against, government intervention rather than the best method of reducing the problem. The question asked students to assess whether or not regulation is the ‘best way’ of dealing with the market failures that result from the consumption of cigarettes.

Some students also struggled because they mistakenly believed that all forms of government intervention are regulation. This meant that they found it impossible to compare regulation with other forms of intervention such as indirect taxes, subsidising substitutes such as e-cigarettes and nicotine patches, or providing better information. Given the ‘clues’ in the extracts, this was surprising. Section 3.1.5.8 of the AS specification makes a clear distinction between various types of government intervention and students should understand the difference between them.

It was very encouraging to see that the majority of students made good use of the extracts to enhance their responses and in some cases, to provide support for judgements made. For example, many of the better students used Extract D to support the case for increasing taxes to raise the price of cigarettes. However, only a small minority recognised that the rise in the price of cigarettes was unlikely to have been the only reason for the fall in consumption.

Answers often included some supported evaluation throughout the response but many of the conclusions were too brief or merely repeated a few earlier points. A well-argued conclusion with a supported final judgement was required to achieve a mark towards the top of Level 5. The judgement might reasonably have concluded, that to be effective, more than one approach to reducing smoking is required but whatever the judgement it should be supported by sound analysis and evidence.

### Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.