



**General Certificate of Education (A-level)
June 2011**

Economics

ECON1

(Specification 2140)

Unit 1: Markets and Market Failure

Report on the Examination

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Unit 1: Markets and Market Failure (ECON1)

Section A: Objective Test (ECON1/1)

The mean mark for the paper was 13.86 and the standard deviation 4.9. The corresponding marks for the June 2010 paper were 15.88 and 4.6. Although not directly comparable because of the differences in the entry, the corresponding results for the January 2011 paper were a mean of 14.20 and standard deviation of 4.6. These statistics indicate that students found the paper to be more demanding than the June 2010 and January 2011 papers. The lower mean mark reflects the fact that the paper contained both fewer easier questions and a greater number of more demanding questions than in the previous examinations. However, the level of difficulty was consistent with examiners' expectations. The statistical analysis of the questions does not indicate any problems which would invalidate individual questions or the paper as a whole. The individual question test statistics indicate that the paper discriminated very effectively between more-able and less-able students. All the questions performed within acceptable limits and none were rejected from the paper.

The individual question test statistics indicate that students found questions 1, 2, 4, 6, 11, 20 and 22 fairly easy in that 65% or more of students answered them correctly. Questions 1 and 20 were the easiest questions on the paper, with facilities of 78.64 and 78.80 respectively. There were no especially easy questions on the paper. Five of the questions proved to be difficult, with facilities of less than 41 per cent. Question 9 was the most difficult question with a facility of 32.95 per cent, followed by questions 10, 7, 23 and 24, which all had facilities of less than 41 per cent. Four of the difficult questions, 7, 9, 10 and 23, also had prominent distractors.

It is significant that the four difficult questions which also had prominent distractors involved some aspect of either elasticity of demand and/or elasticity of supply. A significant proportion of students were unable to apply knowledge and understanding of the key concepts of elasticity of demand and elasticity of supply. In particular, as shown by the choice of prominent distractors in the case of questions 9, 10 and 24, many students were unable to relate elasticity values to the slopes of demand curves. All the following questions had high-to-very-high, measures of discrimination between more-able and less-able students. This signifies that the majority of students found the questions difficult due to gaps in knowledge.

Question 7

The very low facility for this question at 37.17 per cent (Key B), combined with over 40 per cent of students selecting distractor D, demonstrates a deficiency in knowledge and understanding of the factors that determine the price elasticity of an industry's supply curve. Distractor D relates to the determinants of price elasticity of demand, not supply. Elasticity of supply in an industry is dependent on several factors, including the degree of capacity utilisation. If an industry is working at full capacity, its ability to increase output in response to a rise in prices is very limited and its price elasticity of supply is correspondingly low. In contrast, if firms in the industry are working below full capacity their output will be much more responsive to a rise in price and the industry supply curve is correspondingly more price elastic.

Question 9

As in Question 7, a majority of students failed to demonstrate the required knowledge and understanding of the concept of price elasticity of supply and confused elasticity of supply with that of demand. Only 32.95 per cent of students selected the Key, A, while a disappointing 44.69 per cent of students selected distractor C. As with the other price elasticity questions on this paper, some students appear to lack a meaningful knowledge and understanding of price elasticity concepts and how to apply them in a given context.

Price elasticity of supply is normally positive and price elasticity of demand is normally negative. The numerical data given in the graph shows a positive relationship between price and supply. It can easily be applied to the formula for price elasticity of supply to give a numerical value of +2. In contrast, the data shows a negative relationship between price and quantity on demand curve D_1 .

Question 10

Only 37.01 per cent of students selected the correct answer, C, while a high percentage of students, 48.58 per cent, selected distractor D. This question involves a straightforward test of students' knowledge and understanding on the implications of price elasticity of demand for the slope of a demand curve. If the demand curve for a good is perfectly elastic (horizontal) it implies that demand is unbounded at the prevailing price but falls to zero if the price rises above the prevailing level. In this case, the introduction of an indirect tax on the good can have no influence on its price. The imposition of an indirect tax is born entirely by suppliers and shifts the supply curve leftwards, with a corresponding reduction in the quantity supplied. The prominent distractor, D, involves a perfectly inelastic demand curve. A perfectly inelastic demand curve is vertical and the quantity demanded does not vary with price. In this case, the price will rise by the full amount of the indirect tax. Understanding of the meaning and implications of differences in the price elasticity of demand is an essential requirement for the correct application of demand and supply curve analysis.

Question 23

This question involved a straightforward test of students' ability to apply their knowledge and understanding of how externalities give rise to market failure. It proved to be very difficult because of confusion regarding the necessary conditions for there to be a misallocation of resources in the presence of externalities. Only 37.17 per cent of students selected the correct answer, D, while a high proportion of students, 43.37 per cent, selected distractor C. Externalities in production and/or consumption are a cause of market failure if the free market equilibrium involves a divergence between marginal social costs and benefits. In such cases, the optimal level of production and consumption is determined by the equality of marginal social cost (MSC) with the marginal social benefit (MSB). The necessary condition for a misallocation of resources is thus a divergence between marginal social costs and benefits. At output levels greater than Q shown in the diagram accompanying the question, the MSC of smoking exceeds the MSB. Response D corresponds to this situation. Distractor C is correct as a statement that, to the right of output level Q, the MSB is less than the MPB. However, this alone does not explain why there is a misallocation of resources. The MPB also exceeds the MSB at output level Q and to the left of Q. The relevant consideration is the comparison of MSB with MSC and **not** MSB with MPB.

Question 24

Only 40.46 per cent of students selected the correct answer, C, although on this question the other choices were more evenly distributed (ie without a prominent distractor). The question tested students' knowledge and understanding of the implications for a firm facing a perfectly elastic supply curve. Students were expected to know that, faced with a perfectly elastic (horizontal) supply curve, a firm could buy any amount of a raw material at an unchanged price. The fact that nearly 60 per cent of students did not know this fact involving the elasticity of a supply curve is further evidence of gaps in knowledge and understanding of elasticity concepts in relation to the slopes of demand and supply curves.

Section B: Data Response (ECON1/2)

General

Most, but not all, students are now well prepared for the first part of a data-response question, providing a short, sharp, snappy definition. However, the definitions given are not always correct, exhibiting on occasion a 'hit-and-miss' approach.

Likewise with the second part of questions, students have become better prepared at identifying two *significant* features of the data or two *significant* points of comparison. Nonetheless, students must remember that a good answer provides overview, backed up by evidence from the data. They must also remember to quote the units of measurement in their answers. Significant points of comparison include comparing the beginning and the end of the two data series; comparing peaks in the two data series; comparing troughs in the two data series; noting the values in one of the two data series are always above (or below) those of the second data series; identifying positive or negative correlations between the two data series; identifying volatility or stability in a particular data series.

For the third part of the data-response question, in their written explanations students should not simply *describe* what diagrams show. There are no marks for this. Instead, they should look for *prompts* in the relevant Extract. A prompt is there to point the student in the right direction in their explanation.

Finally for the final question, students should remember that, before they *evaluate*, they must first *analyse*, ie provide some relevant economic theory on which to build their evaluation. A 'golden rule' is to evaluate each argument as it is introduced into the answer. Students should remember that when the *signalling*, *incentive*, and *rationing/allocative* functions of prices work well, markets also work well; but when one or more of the functions breaks down, a degree of market failure occurs. Complete breakdown of the three functions of prices leads to a missing market.

Context 1

Part 01

This question was very well answered, with many students earning full marks for writing a concise and accurate definition of 'price elasticity of supply' or for stating the correct formula. There was little evidence of students needing to accumulate marks with incomplete definitions, although this is possible on this type of question (up to a maximum of four marks). However, sometimes when writing the formula students omitted 'percentage', and received only two marks instead of five. A few students failed to earn any marks because their answers were restricted to writing the formula 'upside down' or confusing price elasticity of supply with one of the other standard elasticities students are expected to know.

Part 02

Whilst many students earned full marks for this question by identifying two significant features of the data supported by two sets of accurate statistics, some unfortunately misinterpreted the data or simply failed to refer to the 'UK house price affordability indicator' in full. The 'indicator' fell over the period but 'affordability' did not, and consequently some statements were incorrect. For data interpretation questions, students should be reminded of the need to study the data carefully and to take note of any explanatory notes provided with the data. They should also be explicit in their use of the technical terminology of economics.

Part 03

This question was generally very well answered, and appeared to be accessible to most students. Many obtained the maximum of four marks for the diagram and a number also correctly identified 'excess demand' at the original equilibrium price. Whilst this did not receive any extra marks if the maximum had already been reached, it served as a useful prompt for additional explanation marks regarding the adjustment process. The vast majority of students correctly drew a diagram shifting the demand curve to the right and gaining the full four marks available for this. Some failed to indicate the direction of the changes in their written answers, for example simply writing 'changes in population size', rather than stating it had increased. Students needed to draw from the prompts in the data to explain how two factors may have caused a rise in the price of houses. Some students only referred to one factor and their answers were constrained to ten marks, whilst others actually explained two factors which had caused a *fall* in the price of houses, which was not rewarded. Again, students should be reminded to read questions carefully and answer the question set.

Part 04

There were some very good answers to this question which included a genuine discussion of the merits or otherwise of government intervention in the housing market, supported by sound theoretical analysis drawn from the prompts in the data. Some of the best answers questioned the existence/extent of market failure in the housing market as part of the evaluation.

However, too many students turned this question into an evaluation of alternative policies rather than of the issue as to whether the government should intervene or not. This compromised their ability to reach the higher levels. Whilst these answers often included some good analysis and evaluation, they were constrained to Level 3 in the Levels of Response mark scheme used for the final part of an AS data-response question. As this has been a common failing in recent exams, teachers should ensure their students do not misinterpret questions in this way.

Context 2

Part 05

As in **01**, a concise and accurate definition was able to earn full marks. However, for this question, fewer students were able to do this. There were wordy, irrelevant answers, and clearly some students did not appear to understand such an important concept as the market mechanism and, thus, were unable to define it accurately.

Part 06

This was a very well answered question with many students correctly making comparisons between the 'percentages of different age groups consuming alcoholic drinks' and earning full marks. The 'highest' and the 'lowest' comparisons appeared to be the favourites. Students seemed to have little difficulty with the supporting data, with only a few mistakenly assuming that, for example, the percentage of 'light drinking' included the sum of the other two types of drinking as well. In addition, it was pleasing to note that most of the comparisons noted were *significant*, and also that fewer students wasted time trying to *explain* the data.

Part 07

Although there was a clear prompt in the question regarding the 'health consequences of drinking', many students appeared to struggle with their answers. A significant number of students did not use a private/social cost/benefit diagram for this question but then curiously went on to produce one for **08**. Those who did draw the anticipated diagram often failed to achieve the full 4 marks by failing to interpret it correctly. Some drew negative externalities

diagram. On this occasion, diagrams for negative externalities in production and consumption were both rewarded, though in the light of a recent specification clarification, teachers should make sure they explain to students the clear distinction between consumption and production externalities.

The obvious starting point for the analysis was to identify alcoholic drink as a demerit good. Most students did this but definitions of a demerit good were often imprecise, for example in terms of a demerit good being any good that 'is bad for you'. Accurate definitions were often followed by good analysis of why resource misallocation occurs, possibly through reference to the information problem (though this was not essential to earn full marks). Superficial answers were restricted to such things as discussion of 'happy hours' without any reference to resource misallocation. In these cases, nearly all the accompanying explanation was largely irrelevant.

Part 08

This was a very straightforward question regarding the best way to tackle the over-consumption of alcohol. The focus was a minimum price law for alcohol and the best answers gave a thorough analysis and evaluation of the effectiveness of minimum price laws, accompanied by relevant and accurate diagrams combined with analysis and evaluation of at least two alternative policies. Typically these answers drew from the prompts in the data and included evaluation throughout, prior to a final conclusion. Such answers were extremely pleasing to mark, exhibiting as they did excellent exam preparation provided by the teachers.

However, given the nature of the subject matter, some students wrote extremely 'general' answers, which contained very little, if any, economic analysis. Students must ensure that they use the examination as an opportunity to demonstrate their knowledge of economics and their ability to apply this knowledge relevantly and accurately to various contexts. A number of students did not use any diagrams to support their written analysis and they should be encouraged to do so. Diagrams really help to build analysis and alert students to issues they may not otherwise have considered. For example, a surprising number of students failed to discuss the issue of excess supply following the implementation of a minimum price law. The weakest of all the answers confused a minimum price law with a maximum price law, sometimes straying also into a discussion of subsidies (rather than indirect taxes) and buffer stock intervention in markets for alcoholic drinks.

Some ways in which students can improve their answers

The standard of answer can be improved by:

- reading the data and questions carefully before answering;
- resisting the temptation to provide unnecessary explanations where the question does not require them;
- obeying the key instruction word, eg *define*, *compare*, *explain*, and *assess*, for each part of the chosen question
- evaluating both sides of the issue, or issues, posed by the final part of the question.

Mark Ranges and Award of Grades

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

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