



AS LEVEL ECONOMICS

7135/1 The Operation Of Markets And Market Failure
Report on the Examination

7135/1
June 2023

Version: 1.0

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General

There was an uneven split between the two context questions with approximately 66 per cent of students opting for Context 1 and 34 per cent opting for Context 2. Although there were some pleasing answers to Context 2, on average, students performed better on Context 2. It may well be that the oil context and related 10 mark and 25 mark questions were more familiar to students and oil seen as a more accessible option than the drones context.

The overall level of responses suggests that some students still lack the precision required to precisely define key terms, nearly 50 per cent of students did not achieve full marks in the definition questions. A definition is required rather than a formula, example, or detailed explanation of the term, with many students writing several sentences to acquire marks when much less often suffices.

Many find the calculation questions difficult because they struggle to understand the context of the numbers and data involved. For the second calculation, many students just did not spot that it wanted the total cost of delivering food weighing 'one pound'. Only 40 per cent of students achieved full marks on this 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 were awarded for the correct method even if the final answer is incorrect.

Whilst many students are well prepared for the significant features questions, it is hoped that centres also spend time with students looking closely at, and understanding, the whole range of features that might be present.

Students would benefit from being provided with as many opportunities as possible to demonstrate a fuller analytical understanding of economics in 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. Embedding logical chains of reasoning into the analysis, using the full economist's toolkit when referencing real world contexts is crucial.

Many students made extensive use of diagrams in their answers. However, some of these diagrams were not explicitly used or were inaccurate or not labelled correctly; students should be aware that credit is unlikely to be 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 and adds value to the response.

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. Combining evidence from different extracts is one way of strengthening the quality of evaluation. 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 responses provided a convincing, well-developed, supported conclusion. It is a difficult skill that students need to practice. 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: OIL

Question 21

Students who were unable to provide a full and precise definition of 'price elasticity of demand' did not achieve full marks given both extent and causation were required for a Level 3 response. Some students included either extent or causation, but not both. Simply writing out the correct formula for price elasticity of demand was another reason why students failed to achieve a Level 3 response - a formula of course is not a definition. Some weaker responses price elasticity of demand measured the responsiveness of price to a change in demand. Numerical examples were not expected or required, but where students linked this to both extent and causation they were rewarded accordingly.

Question 22

Many students found this question challenging, but the mark scheme still rewarded an understanding of the process even if the answer was incorrect. Some students still lost a mark for not rounding to the nearest whole number, some also included incorrect units such as %. The main reason why students did not achieve full marks was not multiplying the correct price figures by 100 or by taking April 2020 rather than February 2020 as the starting point. Fundamentally, many students find index/base year questions challenging and centres would be wise to walk students through the key aspects of how to approach such questions. Whilst it is important to show workings, it was sometimes difficult to follow how a student had come to a final answer, given the number of calculations and with much of the answer crossed out. Strong students showed clear and well organised process in their calculation.

Question 23

The important principle for this question is that students need to identify, and clearly state, two significant features of the price of Brent crude oil over the period shown. The significant feature must be supported by accurate use of the data. Clearly most students have been taught a technique for this question. This allowed many to achieve full marks by including the lowest price, over the period shown, as one feature and then the highest price, over the period shown, as the second feature. Many students included the highest and lowest price together as just one feature, which was awarded 2 marks for being a single feature. Some students who adopted this approach often then struggled to include a second feature, many scoring 2 marks overall. Examples of significant features were included in the mark scheme and students used the full range of these examples in their responses. As in previous years for this type of question, marks were lost due to the failure to use the correct units (\$ per barrel) and/or not including significant features that covered the whole period and/or for not taking the correct price from the graph in the extract. Many students saw the highest price in 2013 as \$105 rather than \$109. The mean score for this question was 2.83.

Question 24

It was very apparent that most students were able to complete a basic pie chart, especially with the assistance of 10% segments already included as an outline on the pie chart. 86 per cent of students scored full marks on this question. Students differed greatly in how they completed the pie chart, many using a ruler and clearly showing the 5 areas with meticulous precision, others constructed it freehand, often in quite unique ways. Whilst many untidy/free hand variations still scored full marks, it is good practice to use a ruler and to construct pie charts and draw diagrams with the greatest accuracy possible.

Question 25

This 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.

Compared to the equivalent question about drones, responses to this question were stronger, with the mean score just above 6 marks and in high Level 2. 29 per cent of students achieved a Level 3 mark on this question.

Many students did not make enough of a link between the development of renewable sources of energy and the impact on the market for oil. Even with extracts to inform and steer them, students struggled to fully develop this link in their responses using economic terminology and concepts. The question encouraged students to explain the impact on different markets for oil, eg, Fuel for transport or for electricity generation - this opportunity was not seen in many responses.

Many Level 2 responses took cues from the extract but did not adequately develop the analysis and/or failed to include reasonable application of economic principles or really made use of the data. Weaker responses did not really develop their response beyond a basic narrative that renewable energy sources had been developed and why this had happened.

Stronger responses generally started by contextualising how renewable sources of energy had been developed and had now become a substitute for oil. They went on to demonstrate an understanding of how this would then impact on the demand for oil and the subsequent impact on the price and quantity sold of oil. Good application was demonstrated by drawing on information provided in the extracts. The best responses went on to include the significance of different elasticities, mainly using price elasticity of demand or price elasticity of supply.

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. Many did include a diagram and gave them an opportunity to show the impact on the market for renewable energy sources and oil via demand, supply, price, quantity, and price elasticity of demand and supply. 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.

Question 26

This question was answered rather better than question 32, with the mean score around 14 marks. There were some strong responses with around 21 per cent of students achieving a Level 5 response. However, 15 per cent of students still scored 10 marks or less.

Many students wrote generically about oil and the market failure of oil which drifted from the heart of the question which was about how governments could deal with the market failures of oil. When students recognised the examples of market failures in the oil industry from the extracts, most notably the environmental concerns - many listed a whole range of policy options which were not always easily applicable to the oil industry, especially given its global context and importance. This meant students were left debating the pros and cons of each policy option or intervention versus non-intervention without focusing on the oil industry itself. This prevented focused robust economic analysis and ultimately evaluation in their response. Many students used the policy of minimum and maximum prices generically without ever considering the feasibility of this.

Whilst many students were able to recognise that taxes, regulation, and subsidies played a role, not enough focused on the stakeholders most affected by the market failures and the subsequent policy options. Better responses considered key oil industry stakeholders such as oil exporters, oil importers, consumers, and businesses. The strongest responses recognised that several governments and OPEC also played a key role in dealing with the market failures of oil. When this was backed up by explicit reference to the extracts, a student could score very well.

Some students tried to cover all the market failures mentioned in the question/extract. Although this was not necessary, many scored well by mentioning more than one market failure, especially

when this was featured in their evaluation and judgement. Weaker students, when trying to counter the problem of unstable prices, suggested that governments should help oil producers at all costs by giving them subsidies, growing their monopoly power, and even preventing the development of renewable energy sources.

Extracts were used extensively and often quoted by many students but could have been used better by many more to support arguments and judgements. Many did not understand the extract material or the data well enough to use it effectively.

Students included more diagrams in responses for this question than in question 32, eg, negative externalities in production, maximum and minimum prices. Students recognised that diagrams could add value to their response when referencing the diagram and analysing the relevant concepts involved.

Context 2: DRONES

Question 27

Many students were able to communicate that factors of production were resources or inputs used to produce goods and/or services with 45 per cent achieving full marks on this question. 60 per cent of students achieved at least 2 marks.

Some demonstrated inaccuracy or imprecision and/or did not mention economic resources or inputs. Students often understood/knew of the 'factor of production' concept but were not precise enough in their responses to be awarded 3 marks for a full and precise definition.

Many students successfully provided an example(s) of a factor of production in their definition, but for those who simply listed one example or all 4 factors of production, this was worth just 1 mark. An example or a list of examples on their own does not qualify as a full and precise definition.

Question 28

Many students were able to calculate, to the nearest penny, the average total cost of delivering food weighing one pound. However, some made avoidable mistakes by, for example, not rounding to the nearest penny or by missing the correct unit (£).

Where students were not able to calculate the correct answer, they were at least rewarded for some process marks – the mark scheme included a full range of student responses.

The mean mark for this question was 2.64, significantly higher than the calculation question equivalent in Context 1.

Question 29

As in previous years, students adopt a well drilled technique for this type of question with the most common response to highlight in the first feature the highest worldwide sales of drones figure, followed by the lowest worldwide sales of drones figure for the second feature. Many students omitted 'thousands' as a unit of measurement - this must be quoted for each comparison.

Many students are still not able to accurately read numbers from a graph/chart, even with a margin of error, and were penalised accordingly. The mark scheme included many variations of response including significant features within the data such as the greatest increase or greatest decrease in the sales of worldwide drones.

Around 30 per cent of students achieved full marks on this question, which was disappointing, and the mean mark of 2.32 was half a mark lower than the equivalent question in Context 1.

Question 30

Around 78 per cent of students achieved full marks on this question, which was pleasing. Most students were able to draw a bar chart to show the number of near misses between drones and planes in the UK for 2014, 2016 and 2018. However, many students also included 2015 and 2017 when drawing the bar chart, which was not required, but were not penalised for doing so if the 2014, 2016 and 2018 were drawn correctly.

Students answering this question made few basic errors, but when they did it was missing a vertical axis label (or title) and/or no/incorrect indication of years. Some students were penalised if one or more of the years in question were out of tolerance. A small number of students made basic errors, for example when scaling the vertical axis or by not including the year in the right place, underneath the year rather than at the end or start of the year.

Question 31

It is worth re-emphasising that this question and the equivalent question 25 are assessed using a level of response mark scheme. It is the overall quality of the response that determines the mark awarded.

The mean mark for this question was 5.84, a little lower than the equivalent in Context 1. However, there were some strong responses to this question and with good economic analysis, with 32 per cent achieving a Level 3 mark.

Strong students recognised that delivery drivers were in derived demand and that drones and delivery drivers were substitute goods. Students were then able to analyse the impact of increasing use of drones on the market for delivery drivers, ie, the impact on the demand for delivery drivers and the price/wage and quantity used of delivery drivers. Level 2 or higher, responses made effective, rather than anecdotal use of the extracts.

Given the question asked about the market for delivery drivers, those students that started their analysis from a market perspective were often well rewarded. Those students achieving Level 2 or higher used a demand and supply diagram to explain the likely effects. Shifting the demand curve for delivery drivers to the left and establishing a new equilibrium allowed students to develop logical chains of reasoning explaining the effect on price/wage and quantity of delivery drivers. Stronger responses used price elasticity of demand to further their analysis. Most answers were clearly rooted in the case study with discussion clearly linked to the source material, but it was not uncommon to see students making almost no reference at all to economic concepts. Quoting extensively from the extract material without really developing the discussion was not well rewarded.

Although diagrams were a feature of most responses, some are drawn without explicit reference to them in the analysis; many were poorly drawn and often poorly labelled. 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.

Question 32

This question produced a wide range of responses and there were some very accomplished and thoughtful answers to this question, but only 11 per cent of students achieving a Level 5 response. The mean score for this question was 12.43, around 1.5 marks lower than the equivalent question in Context 1.

The best answers started by setting the scene, highlighting the use of increased use of drones for commercial, leisure or military purposes. Students then went on to analyse and evaluate how drones should be encouraged via subsidies, for example, before then analysing and evaluating how drones could be discouraged, for example by regulation or taxes. Considering market and government failure as well as making an overall judgement about whether drones were good or bad was the domain of the very strongest answers.

More typical, for students around the mean mark, was to raise several issues from the extracts, such as near misses with planes, and then develop this generically, but without using economic terminology or analysis. Most students recognised that drone use has obvious pros and cons, but were not able to assess, using economic knowledge, whether governments should encourage, discourage, or do nothing to affect the use of drones.

Responses that identified some of the key stakeholders involved and the benefits generated by intervention and more action were well rewarded. Impressively, a few students analysed the impact of drone use on productivity, costs and profits of firms, supported by a relevant diagram and quotes from the extracts.

As in previous years, with this type of question, students offering a view about whether the market for drones should be left alone because it is more efficient due to the market mechanism, demonstrated the most sophisticated responses.

Many students explored the idea of government failure; however, many were vague on what this meant. It would certainly be expected that if students explore government failure, they should recognise that the failure is deepened, or a new problem is created.

The judgement for this question seemed to be more straightforward than question 26 with most students making a decisive judgement about drone use in general. However, the question required a judgement about whether governments should encourage, discourage or do nothing, and this was not always clear in student responses.

Mark Ranges and Award of Grades

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