A-level
ECONOMICS
7136/3

Paper 3 Economic Principles and Issues

Mark scheme

June 2022

Version 1.0 Final Mark Scheme

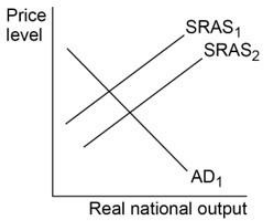
Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

SECTION A

KEY LIST

1	**D** (may be true or false)	**11**	**B** (Most banks carry out both commercial and investment banking activities.)	**21**	**D** (Total utility is maximised.)
2	**C** (Moving products with a high sugar content away from supermarket checkouts)	**12**	**C** (A natural disaster, damaging productive capacity)	**22**	**C** (Increasing, Increasing, Increasing)
3	**A** (greater at X than Y)	**13**	**A** (Helping countries settle disputes over tariffs and quotas)	**23**	**C** (£264 billion)
4	**C** **(3.3%)**	**14**	**D** (There is considerable spare capacity in the car industry.)	**24**	**A** (make supernormal profits)
5	**C** (price levels)	**15**	**B**  	**25**	**B** $(\frac{1}{40})$
6	**C** (Rates of income tax)	**16**	**C** (The income of some households is significantly less than the median household income.)	**26**	**B** (£100 bn)
7	**B** (Producers will be more likely to have to pay compensation for pollution.)	**17**	**D** (regressive tax)	**27**	**B** (The cost of living for people who live in UK seaside towns will fall.)
8	**C** (The firm's total revenue falls.)	**18**	**A** (Government retraining schemes for structurally unemployed workers)	**28**	**A** (The total amount paid in wages will fall from $(W_2 \times Q_2)$ to $(W_3 \times Q_1)$.)
9	**C** (price discrimination)	**19**	**C** (5 + 6)	**29**	**C** (Increasing life expectancy at birth)
10	**A** (5%)	**20**	**A** (Average revenue and marginal revenue will both fall.)	**30**	**C** (geographical immobility of labour)

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

SECTION B

INVESTIGATION **Total for this investigation: 50 marks**

3 1 *To what extent do the data support the view that Boeing has been more successful than Airbus since 2014? You must use the data in **Extract B** to support your assessment.*

[10 marks]

Level of response	Response	Max 10 marks
Level 3	**A good response that:** • is well organised and includes at least three relevant, well-developed issues • makes effective use of the numerical/statistical data in **Extract B** • shows some appreciation of the limitations of the data • includes a supported final judgement concerning the extent to which the data support the view that Boeing has been more successful than Airbus since 2014.	**8–10 marks**
Level 2	**A reasonable response that:** • is fairly well organised and includes at least two relevant and fairly well-developed issues • includes some satisfactory use of the numerical/statistical data in **Extract B** • may show some appreciation of the limitations of the data • at the top of the level, is likely to include a final judgement regarding the extent to which the data support the view that Boeing has been more successful than Airbus since 2014.	**4–7 marks**
Level 1	**A weak response that:** • is very brief and/or lacks coherence • may include one or more superficial points regarding the extent to which the data suggest that Boeing has been more successful than Airbus since 2014 • contains very limited or poor use of the data in **Extract B** • doesn't show any appreciation of the limitations of the data • may include an unsupported judgement concerning the extent to which Boeing has been more successful than Airbus since 2014.	**1–3 marks**

When assessing the extent to which the data support the view that Boeing has been more successful than Airbus since 2014, most students are likely to base their assessment on the data in **Extract B**. However, they can also be rewarded for making relevant use of the other extracts and their own knowledge.

Relevant issues include:

- explanation of the market that Boeing and Airbus are in
- explanation of the criteria that might be used to judge the relative success of Boeing and Airbus, eg deliveries of aircraft, changing market share, profitability
- each year, between 2014 and 2018, Boeing delivered more aeroplanes than Airbus but generally the gap has been falling, eg from 94 aeroplanes in 2014 to just 6 aeroplanes in 2018
- the total number of aeroplanes delivered, between 2014 and 2018, by Boeing (3802) was more than Airbus (3470) delivered
- Airbus delivered 863 planes in 2019 but Boeing's deliveries fell to 380, however, this was due to the grounding of the 737 MAX
- in 2018, Airbus had a larger backlog of outstanding orders than Boeing, 7133 planes as opposed to 5488 planes
- between 2014 and 2018, in terms of deliveries, Boeing had a larger market share than Airbus but Boeing's market share fell from 47.3% to 45.7% whilst Airbus's market share grew from 41.1% to 45.4%
- on balance, data relating to deliveries, market share and orders suggest that the performance of Airbus improved relative to Boeing over the period
- between 2014 and 2018, in each year, Boeing's total revenue was greater than Airbus's total revenue but the difference fluctuated. Over the five years, Boeing's total revenue was $304.1 billion whereas Airbus's total revenue was $275.9 billion
- between 2014 and 2018, in each year, Boeing's profit margin was greater than Airbus's profit margin but whilst the difference fluctuated, the difference between Boeing's and Airbus's profit margin was lower in 2018 (4%) than in 2014 (4.4%)
- the average revenue per aircraft fell for both firms but it fell most for Airbus. Between 2014 and 2018, Boeing's average revenue per aircraft fell by $7.7 million whereas Airbus's average revenue per aircraft fell by $18.5 million
- limitations of the data identified might, for example, include:
  - no indication of the total profit, although this can be estimated from Figure 3
  - no indication of the amount of interest each company pays on its debt/borrowing
  - the reasons for the falls in average revenue per aircraft are not known, eg was it because they were cutting prices to increase sales or was it because the types of aircraft being sold were different
  - the effect of the grounding of the 737 MAX is a distortion and it is difficult to judge its significance
  - no information on factors such as spending on R&D and human capital and the effects on the performance of the two companies
  - no comparison of the performance of the two companies in different market segments, eg geographical regions, types of aircraft such as narrow-bodied and wide-bodied
  - little information on how the firms have performed since 2018
- an assessment of whether the data support the view that Boeing has been more successful than Airbus since 2014
- an assessment of the extent to which there is a difference between the performance of the two firms
- an assessment of the extent to which the relative performance of the two firms has changed over the period
- an overall conclusion supported by the data.

As indicated in the level of response mark grid above, a good response will include a supported final judgement concerning the extent to which the data support the view that Boeing has been more successful than Airbus since 2014. A good response will quote data to support the judgement and data will be quoted accurately. It is likely that good answers will conclude that there is some evidence to support the view that Boeing has been more successful than Airbus since 2014 but that

the performance of Airbus has improved relative to Boeing. However, they should not be penalised for a different conclusion, provided it is well supported.

MAXIMUM FOR QUESTION 31: 10 MARKS

Question 31 – Data sheet

News report and Figure 1

Boeing delivered more aeroplanes than Airbus overall

Year	2014	2015	2016	2017	2018	2014-18
Gap	94	127	60	45	6	332

Deliveries 2014-2018

	Percentage change	Total deliveries
Boeing	11.48% increase	3802
Airbus	27.19% increase	3470

Deliveries

Year	2019
Boeing	380
Airbus	863

In 2018, the outstanding orders were: Boeing (5488) and Airbus (7133)

Figure 2

Overall Boeing had a larger market share in each year between 2014 and 2018

Boeing market share	Airbus	Others
Decrease by 1.6 % (47.3% to 45.7 %)	Increase by 4.3 % (41.1% to 45.4%)	Decrease by 2.6 % (11.6% to 9%)

Figure 3

Revenue and profit margin 2014-2018

	Total revenue	Profit margin before interest and tax %	Average revenue per aircraft
Boeing	$60 bn to $ 60.7 bn (Fluctuating) 1.17% increase	10.7% to 13% (Fluctuating) Increase by 2.3%	$83 bn to $75.3 bn Decrease by 9.28% or $7.7 bn
Airbus	$56.2 bn to $56.7 bn (Fluctuating) 0.89 % increase	6.3% to 9% (Fluctuating) Increase by 2.7%	$89.3 bn to $70.8 bn Decrease by 20.72% or $18.5 bn

- Overall Boeing's total revenue and profit margin are greater than the Airbus
- Average revenue per aircraft is greater for Airbus in 2014 but it is less than Boeing in 2018

Estimated profit ($bn)

Year	2014	2015	2016	2017	2018	2014-18
Boeing	6.42	5.148	1.9602	5.452	7.891	26.8712
Airbus	3.5406	2.545	1.6895	2.9952	5.103	15.8733

3 2 *Explain the factors that a commercial aircraft manufacturer, such as Boeing or Airbus, should consider when forecasting the future sales of its aircraft.*

[15 marks]

Level of response	Response	Max 15 marks
Level 3	**A good response provides an answer that:** • is well organised and develops a selection of the key issues that are relevant to the question • shows sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes good application of relevant economic principles and, where appropriate, good use of data to support the response • includes well-focused analysis with clear, logical chains of reasoning.	**11–15 marks**
Level 2	**A reasonable response provides an answer that:** • focuses on issues that are relevant to the question • shows satisfactory knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles and, where appropriate, some use of data to support the response • includes some reasonable analysis but which might not be adequately developed or becomes confused in places.	**6–10 marks**
Level 1	**A weak response provides an answer that:** • has one or more relevant issues identified • has some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • has very limited application of relevant economic principles and/or data to the question • might have some limited analysis but it may lack focus and/or become confused.	**1–5 marks**

Remember: AO4, ie evaluation, is not being assessed through this question.

Relevant issues include:

- meaning of forecast and the inevitable uncertainties involved when forecasting future sales
- identifying that the growth in the demand for aircraft is derived from the demand for both passenger and freight air transport
- explain the significance of the growth in the world economy and cyclical fluctuations in economic activity
- explain the significance of the growth in the middle-class population
- linking the above to the growth in tourism, the demand for air travel and hence aircraft
- the income elasticity of demand for air transport
- expected developments in the globalisation of the world economy
- the relative price of the company's aircraft
- explain the relevance of both price and cross elasticities of demand

- the effect of changes in exchange rates
- the rate of growth in different market segments and how they link to the type of aircraft the company sells
- the effect of new entrants into the market, eg COMAC
- the extent to which the airlines need to replace ageing aircraft
- changes in technology and the impact on the cost of operating aircraft
- changes in technology and its effect on the environmental impact of air transport
- the effect of government policies and global agreements that might affect the need to replace older aircraft by new aircraft that have a less damaging impact on the environment
- the efficiency (eg cost per seat) of operating the company's aircraft compared to its competitors
- the environmental impact of the company's aircraft compared to its competitors
- the safety record of the company's aircraft compared to its competitors
- the impact of unexpected events such the 2007-08 financial crisis and the global pandemic
- consumer confidence in air travel
- the growth in the demand for air freight, perhaps linked to expected changes in the pattern of world trade
- use of extracts A, B and C to support the above.

The use of relevant diagrams to support analysis should be taken into account when assessing the quality of a candidate's response to the question.

MAXIMUM FOR QUESTION 32: 15 MARKS

3 3 *After considering **Extract D**, and the original evidence in **Extracts A**, **B** and **C**, would you recommend that the UK government provides financial and other support to companies involved in the production of commercial aircraft? Justify your recommendation.*

[25 marks]

Level of response	Response	Max 25 marks
Level 5	**Sound, focused analysis and well-supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes good application of relevant economic principles and, where appropriate, good use of data to support the response • includes well-focused analysis with clear, logical chains of reasoning • includes supported evaluation throughout the response and in a final conclusion.	**21–25 marks**
Level 4	**Sound, focused analysis and some supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes good application of relevant economic principles and, where appropriate, some good use of data to support the response • includes some well-focused analysis with clear, logical chains of reasoning • includes some reasonable, supported evaluation.	**16–20 marks**
Level 3	**Some reasonable analysis but generally unsupported evaluation that:** • focuses on issues that are relevant to the question, showing satisfactory knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles and, where appropriate, some use of data to support the response • includes some reasonable analysis but which might not be adequately developed or becomes confused in places • includes fairly superficial evaluation; there is likely to be some attempt to make relevant judgements but these aren't well-supported by arguments and/or data.	**11–15 marks**
Level 2	**A fairly weak response with some understanding that:** • includes some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • includes some limited application of relevant economic principles and/or data to the question • includes some limited analysis but it may lack focus and/or become confused • includes some evaluation which is weak and unsupported.	**6–10 marks**
Level 1	**A very weak response that:** • includes little relevant knowledge and understanding of economic terminology, concepts and principles • includes analysis which is, at best, very weak • includes attempted evaluation which is weak and unsupported.	**1–5 marks**

Relevant issues and areas for discussion include:

- market failure as a justification for government support
- damage to the environment as source of market failure in the commercial aircraft industry, eg greenhouse gas emissions, noise pollution
- the high cost and risk may, without government support, lead to inadequate spending on R&D and capital investment
- to support investment in human capital where the existence of positive externalities may be a source of market failure and, if left to the private sector, may mean spending is too low
- to support growth and employment in the less prosperous regions where market failures may mean that they do not develop sufficiently, eg immobility of labour, inertia, cumulative causation and local multiplier effects
- may help to promote improvements in productivity and competitiveness
- external benefits (spin-offs) for other industries arising from developments in the commercial aircraft manufacturing industry
- supports UK manufacturing helping to achieve a more diversified, balanced economy
- may be needed to match the support provided by other countries
- may be needed in the short run to support the industry when there is a significant economic shock
- impact on employment
- impact on short-run and long-run economic growth
- government support as an injection into the circular flow of income and related multiplier effects
- impact on exports and the balance of payments
- may lead to over-reliance on government support, inhibiting improvements in productivity and efficiency
- may make it difficult for new firms to enter the market
- distorts the pattern of comparative advantage, supporting inefficient industries reducing the gains from trade
- may breach WTO rules and allow other countries to impose tariffs and other trade restrictions in retaliation
- implications for taxation, other categories of public expenditure and the budget balance
- various arguments relating to government failure, eg information failures, administrative costs, political motivations
- a supported recommendation.

The use of relevant diagrams to support analysis should be taken into account when assessing the quality of a candidate's response to the question.

An answer that does not include any evaluation, either throughout the answer or in a supported recommendation, must not be awarded more than 13 marks.

MAXIMUM FOR QUESTION 33: 25 MARKS