Economics

Answers and commentaries

A-level (7136)

Paper 3: Economic principles and issues

Marked answers from students for questions from the June 2022 exams. Supporting commentary is provided to help you understand how marks are awarded and how students can improve performance.

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April 2024

Contents

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Answers and commentaries

This resource is to be used alongside the A-level Economics Component 7136/3 Economic principles and issues June 2022 Question paper and inserts.

Section B

The commercial aircraft manufacturing industry

INVESTIGATION

Scenario

You are an economist working for an organisation that is investigating the commercial aircraft manufacturing industry.

You have been asked to review the changes to the industry that have taken place since 2014. As part of this investigation, you are to provide answers to three questions.

Referring to the Insert, study **Extracts A, B** and **C**, and then use these and your knowledge of economics to help you answer Questions 31 and 32. There is also a news report, **Extract D**, which is to be used with the other extracts to help you answer Question 33.

Question 31

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]

Mark scheme

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.

See original question Paper 3, Question 31 – data sheet which can't be included because of copyright.

Student responses

Response A

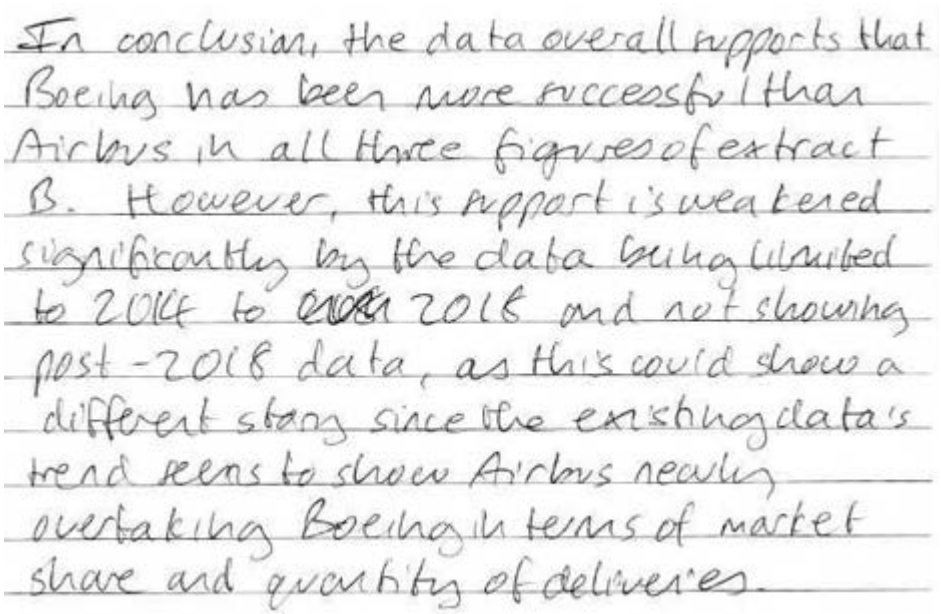
To consider whether Boeing has been more successful than Airbus since 2014, there are several areas which could be assessed, including the number of deliveries of aircraft made, their respective market shares and their revenues and profits.

In terms of the quantity of deliveries made by each company, the data in extract B, figure 1, suggests that overall, Boeing has been more successful since 2014, with a consistently higher number of deliveries than Airbus. However, Airbus has seen an increase in number of deliveries, from 629 in 2014 to 800 in 2018, nearly catching up to Boeing's quantity of deliveries. In contrast, Boeing's 806 deliveries in 2018 only increased slightly from 723 in 2014. Therefore, the data in extract B would suggest that Boeing has been more successful than Airbus since 2014. However, the rising data for post-2018, which is a significant limitation given how close the quantity of deliveries was in 2018 as since then it could be possible that Airbus is now more successful than Boeing.

Similarly, in terms of market share (in deliveries of commercial aircraft), Boeing again would appear to be the most successful since 2014, with market share consistently higher than that of Airbus. But, again, Airbus has seen a significant increase consistently from 2014 to 2018, from 41.1% to (fig.2)

45.4%, whilst Boeing has actually seen a slight decrease in market share, from 47.3% in 2014 to 45.7% in 2015. Again, the data is also limited by its lack of post-2018 data, as trends suggest that Airbus would have overtaken Boeing in the following years. Therefore, the data in figure 2 extract B gives weak support to the view that Boeing has been more successful than Airbus since 2014. However, it could also depend on each firms' objectives. For example Airbus may have been aiming to grow their market share whilst Boeing aimed to increase their profits.

In terms of revenue and profits, figure 3 extract B suggests that Boeing has been more successful in terms of increasing profit margins, from 10.7% in 2014 to 13% in 2018, whereas Airbus has increased at a slower rate from 6.3% in 2014 to 9% in 2018. However, Boeing has seen much larger fluctuations in profit margin, down to 3.3% in 2016, whereas Airbus' have been more steady. On the other hand, Boeing have been more successful in maintaining average revenue per aircraft, down by less than 8% from 2014 → 2018, whereas Airbus has seen a decrease of over 18% in the same period. Furthermore, the data may be limited by profits being shown as a % of sales revenue, as Airbus' profit could be higher than Boeing as a monetary value.


In conclusion, the data overall supports that Boeing has been more successful than Airbus in all three figures of extract B. However, this support is weakened significantly by the data being limited to 2014 to ~~2020~~ 2018 and not showing post-2018 data, as this could show a different story since the existing data's trend seems to show Airbus nearly overtaking Boeing in terms of market share and quantity of deliveries.

This is a Level 3 response

This is a very well-organised, clearly expressed response. It starts by identifying key factors that should be considered when judging whether Boeing has been more successful than Airbus. More than three relevant issues are discussed in detail. The numerical data is used effectively, quoted accurately and linked explanations are fully focused. Some limitations of the data in making a final judgement are identified, for example, that the data provided only goes up to 2018. There is evaluation throughout the response and the final judgement is clearly stated and well supported.

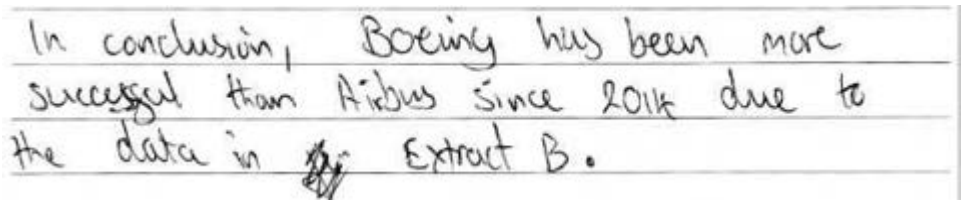
10 marks

Response B

To a larger extent, Boeing has been more successful than Airbus since 2014 because in Extract B, figure 1, it is clear that every year Boeing have done more deliveries. For example, in 2014 Boeing placed 914 more orders than Airbus, and in 2018 they placed 6 more orders. However, if Airbus continue at the delivery rate they are currently doing, they could do more deliveries in the future.

In Extract B, figure 2, it is evident Boeing have been more successful has they have a greater market share. For example in 2014 they had a 6.2% larger market share and in 2018 they had a 0.3% larger market share than Airbus. However, Boeing's market share has decreased by 1.6% over 2014-2018, whereas Airbus's as increased by 1.3%.

In Extract B, figure 3, Boeing is more successful than Airbus as they have a greater Revenues and Profit's. Boeing's total revenue was $60.7bn whereas Airbus is only $56.7 in 2018, highlighting how they are more successful. However, Airbus's profit margins have increased by 2.7% whereas Boeing's have only increased by 2.3%, highlighting that Airbus could be more successful in the long run.



This is a Level 2 response

This response has a clear, logical structure but would have benefited from an introductory paragraph that, for example, outlined how the comparative success of the two firms should be judged. The student has identified several relevant issues. The data is quoted accurately and is used well in the first two paragraphs but less so in the third paragraph where the student only quotes figures for 2018. Each paragraph includes a preliminary judgement with some attempt at evaluation. Possible limitations of the data have not been considered. A final, overall judgement is included but there is little, if any, attempt to summarise the arguments in support of the judgment. It is not fully consistent with the earlier discussion which recognises that the data indicate that Boeing's lead over Airbus is being eroded.

6 marks

Response C

A comparative advantage is where one firm has an edge over another. Boeing have a comparative advantage in deliveries of aircraft has always remained higher than Airbus' according to Extract B & Figure 1. This = Lows Airbus to have 629 sales in 2014, to Boeing's 723. This is one reason (b/c Boeing have been more successful than Airbus.

Another way in which I believe that Boeing also have been more successful is because of Figure 2. This shows Boeing to have had higher market share than Airbus, allowing them to benefit from economies of scale more. This means decreased costs, meaning increased profit margins, and then increased retained profit and market share.

Although one reason I believe Airbus has been more successful than Boeing is as a result of the gap in their market share and production levels has been narrowing since 2014 and in market share, only 0.3%. separates them, compared to the previous 6.2%. This shows that Airbus has recently been growing more rapidly than Boeing, meaning they are operating more successfully.

This is a Level 1 response

The response identifies two relevant issues. The use of data is accurate but very limited and not used effectively to support judgements. Insufficient use is made of the numerical data in Extract B. Possible limitations of the data have not been identified. There is an attempt to present an overall judgment but the judgement is not well supported.

3 marks

Question 32

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]

Mark scheme

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.

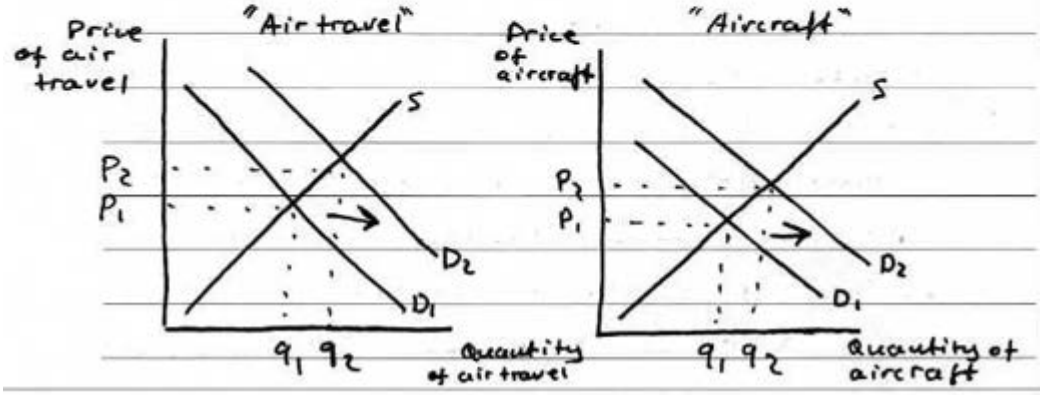
The use of relevant diagrams to support analysis should be taken into account when assessing the quality of a candidate's response to the question.

Student responses

Response A

Forecasting is when a firm analyses data and factors to predict future trends for its sales, revenue and growth.

The primary factor to consider is the "normal economic cycle of recession and recovery." This is key as the demand for aircraft is derived demand from demand for air travel. Thus, if demand is likely to fall due to economic cycle (for air travel) recessions or stagnation, then demand for aircraft will fall. As firms will require fewer aircrafts in their fleet as fewer passengers want to travel or are able to travel.



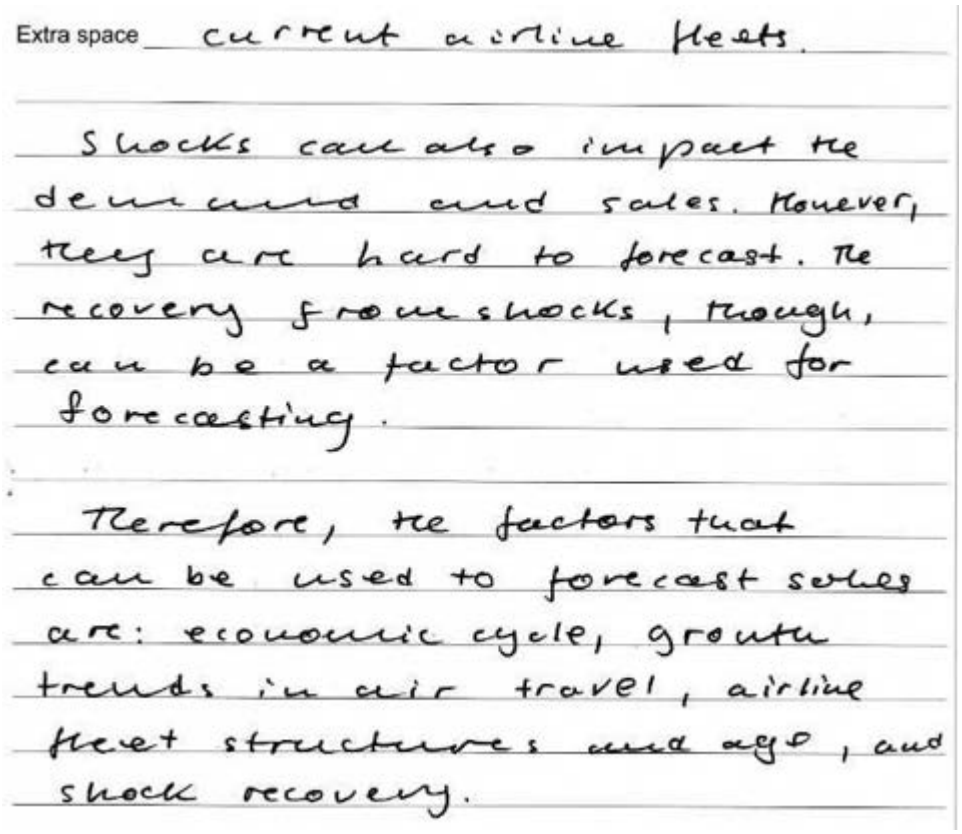
The Demand for air travel rises from q_1 to q_2 this causes a demand rise from q_1 to q_2 in the market for aircraft. Thus a greater quantity of aircraft will be demanded and sold.

Another factor, that links to the previous, is the "growth in passenger air travel." If there is trend growth ~~for~~ or decline in air travel then this will directly impact demand for aircraft from firms. As if demand for air travel is constantly growing then aircraft manufacturers' can create a forecast based on that growth, which will reflect the growth or decline in sales.

Considering the above point, the aircraft manufacturers can forecast sales through analysing populations and their conditions. "Over the next

20 years, the middle-class population is expected to rise from 3.2 billion to 5.2 billion". Through this aircraft manufacturers can forecast that demand for air-travel will rise, as the middle-class population is the set that can afford air travel, and thus firms will demand more aircraft to maintain supply of air travel. Thus the sales will rise. Other metrics such as inequality and incomes can be used in a similar way.

The final factor is airline fleet age. If airlines have old planes they will need to be replaced. "Many older aeroplanes now need to be replaced". Thus, fleet replacement will lead to increased demand for new aircraft, and manufacturers can forecast the required sales to replace fleets, by analysing


Extra space current airline fleets.

Shocks can also impact the demand and sales. However, they are hard to forecast. The recovery from shocks, though, can be a factor used for forecasting.

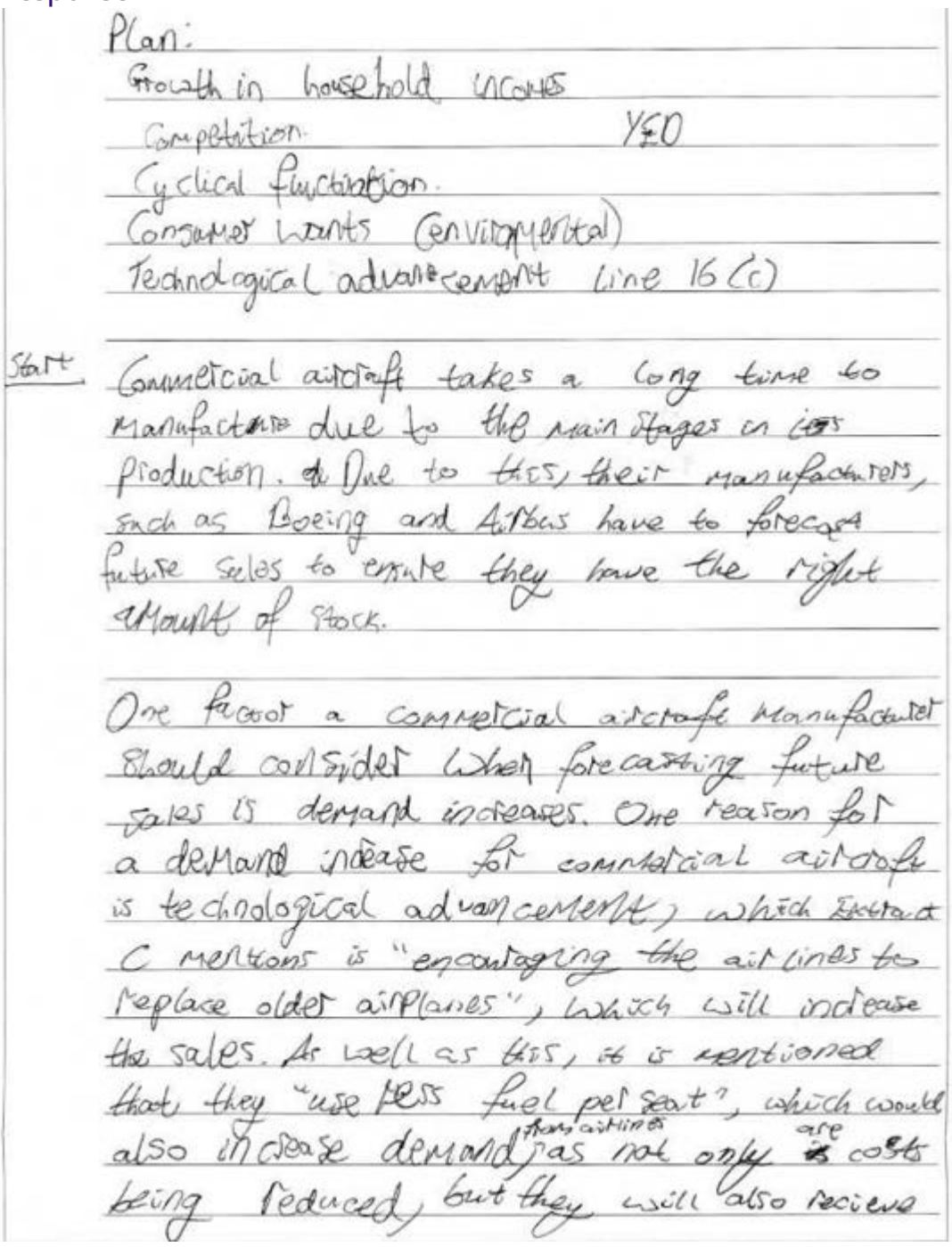
Therefore, the factors that can be used to forecast sales are: economic cycle, growth trends in air travel, airline fleet structures and age, and shock recovery.

This is a Level 3 response

The student has produced a very well-organised answer that identifies a selection of key issues that are relevant to the question. There is an appropriate introduction and the importance of each key issue is explained in a separate paragraph. Good knowledge and understanding is demonstrated throughout and the application of economic principles to the context is convincing. The student recognises that the demand for aircraft is derived from the demand for air travel and air transport. Good use is made of the extracts to identify factors that affect the demand for aircraft. The answer includes logical chains of reasoning to explain the importance of the various factors identified. Points copied from the extracts are acknowledged by the use of quotation marks. Suitable diagrams are drawn accurately and used to support the analysis. There is some repetition and the analysis of some of the factors identified could have been developed further but overall this is a strong Level 3 response.

14 marks

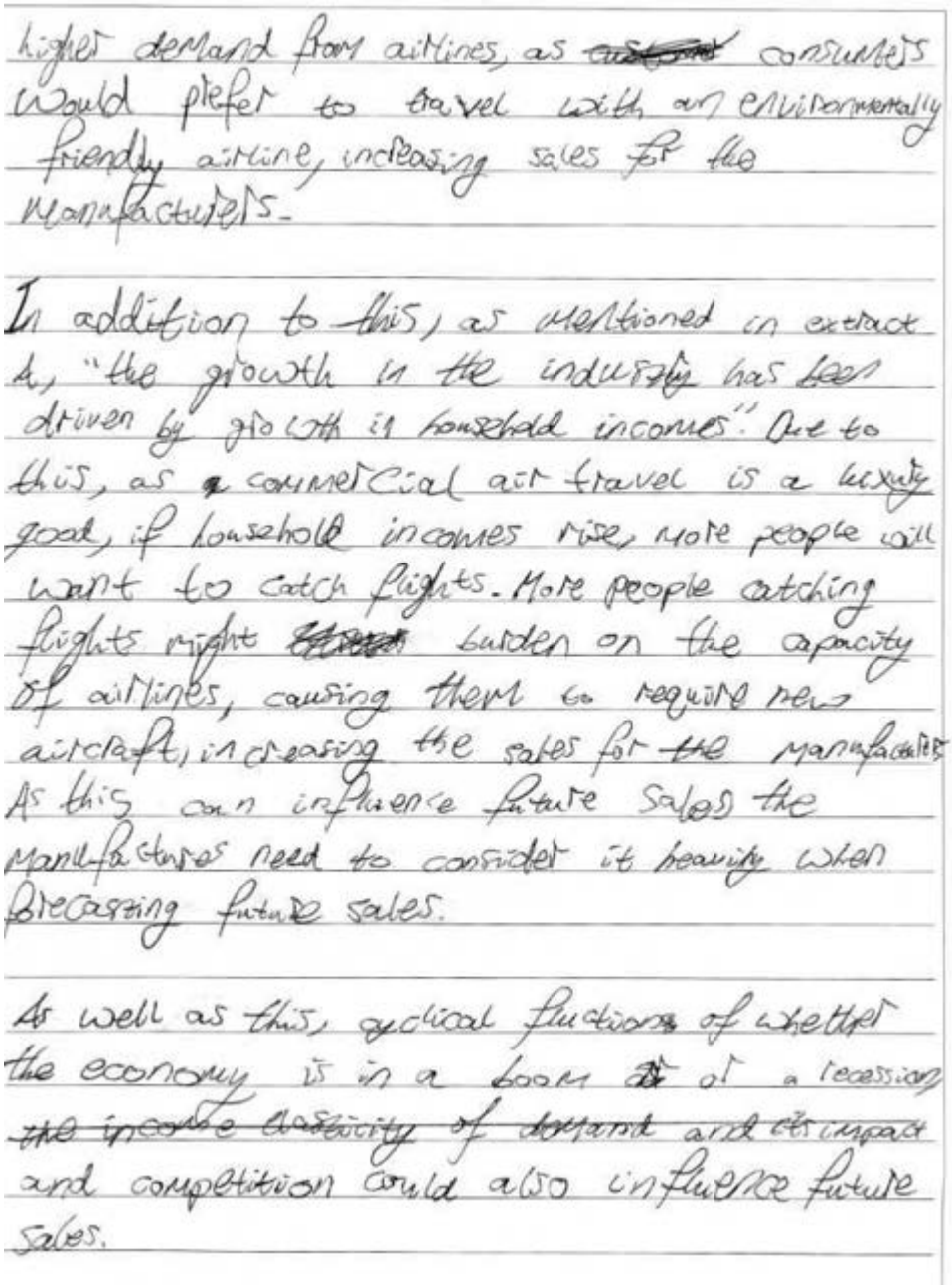
Response B



Plan:
Growth in household incomes
Competition YED
Cyclical fluctuation.
Consumer wants (environmental)
Technological advancement Line 16 (c)

Start Commercial aircraft takes a long time to manufacture due to the main stages in its production. Due to this, their manufacturers, such as Boeing and Airbus have to forecast future sales to ensure they have the right amount of stock.

One factor a commercial aircraft manufacturer should consider when forecasting future sales is demand increases. One reason for a demand increase for commercial aircraft is technological advancement, which Extract C mentions is "encouraging the airlines to replace older airplanes", which will increase the sales. As well as this, it is mentioned that they "use less fuel per seat", which would also increase demand as not only are costs from airlines being reduced, but they will also recieve



higher demand from airlines, as ~~customers~~ consumers would prefer to travel with an environmentally friendly airline, increasing sales for the manufacturers.

In addition to this, as mentioned in extract b, "the growth in the industry has been driven by growth in household incomes". Due to this, as a commercial air travel is a luxury good, if household incomes rise, more people will want to catch flights. More people catching flights might ~~cause~~ burden on the capacity of airlines, causing them to require new aircraft, increasing the sales for ~~the~~ manufacturers. As this can influence future sales the manufacturers need to consider it heavily when forecasting future sales.

As well as this, cyclical fluctuations of whether the economy is in a boom or a recession ~~the income elasticity of demand and its impact~~ and competition could also influence future sales.

This is a Level 2 response

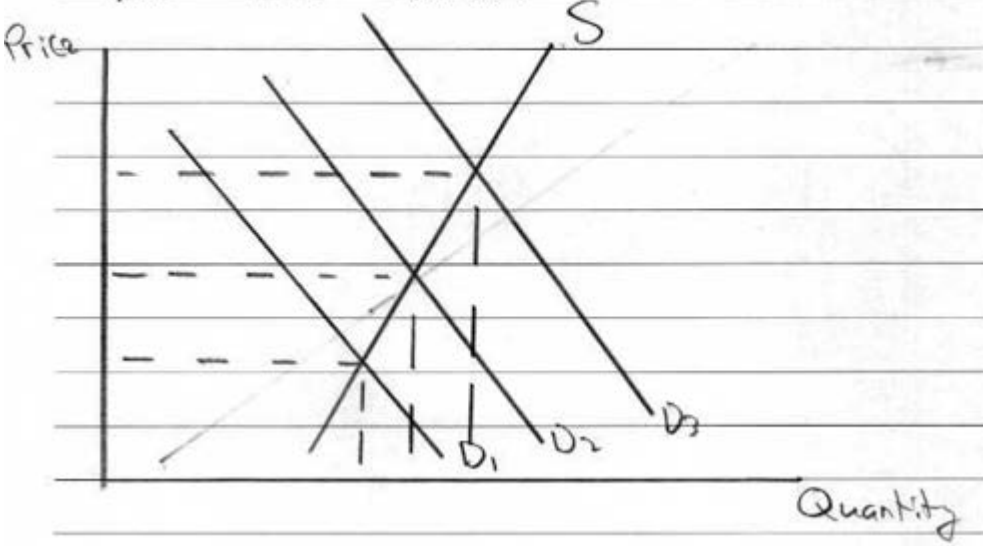
This is a reasonable, if limited, response. There is some effective use of the extracts and the answer is focused on issues that are relevant to the question. Some knowledge and understanding of economic concepts and principles is demonstrated but not fully developed. Application of economic theory to help explain factors that may affect the sales of aircraft is satisfactory but incomplete. Two relevant factors are stated in the final paragraph but there is no attempt to explain how they are likely to affect future sales of aircraft.

9 marks

Response C

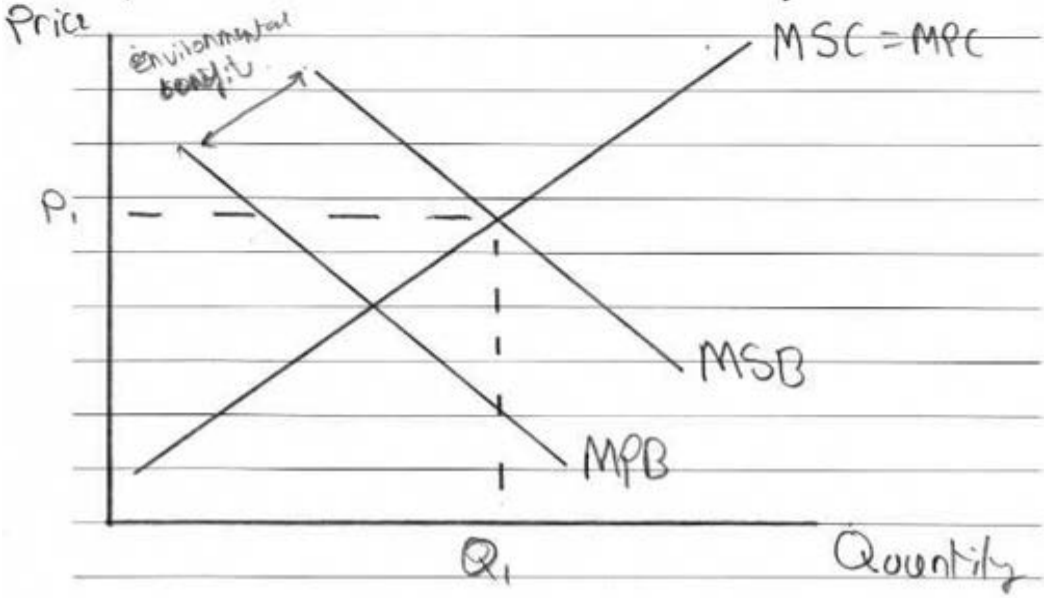
Sales are the quantity of a sold of a good or service. Future sales can be forecasted and predicted by looking at both trends in the past but also speculation in the future.

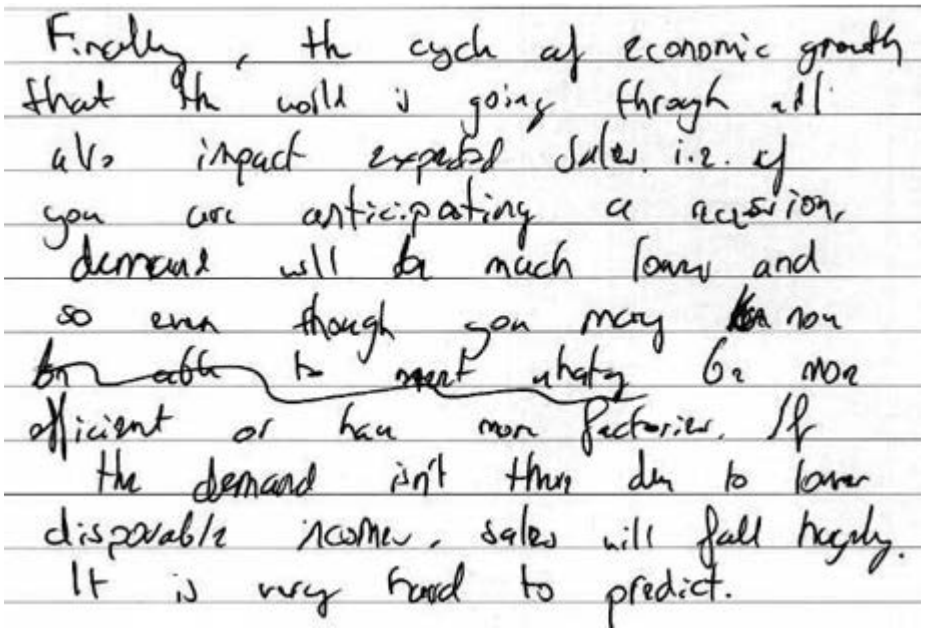
For example, in the next 20 years, the middle class is ~~likely~~ expected to rise from 3.9 billion to 5.9 billion ~~and~~, and Boeing and Airbus both know this will result in an incredible rise in both profit and revenue but only if the two firms can meet these demands.



The supply of aircraft are very price inelastic due to a very low spare capacity / place to store aircrafts meaning that both Airbus and Boeing will not be able to produce much more and raise their sales unless they increase thier productivity and spend more on storage / factories across the globe.

As well as this, ensuring pollution emission will fall will require both extensive research and development but also investment into green technology will will likely cost more due to the positive externalities in consumption.




Firstly, the cycle of economic growth that the world is going through will impact expected sales. i.e. if you are anticipating a recession, demand will be much lower and so even though you may have the ability to meet that by more efficient or have more factories. If the demand isn't there due to lower disposable income, sales will fall hugely. It is very hard to predict.

This is a Level 1 response

The answer identifies some issues but much of the response is of limited relevance. Some understanding of economic ideas is shown but there are inaccuracies and the application of economic principles to the context is quite weak. The first diagram is incomplete and is not used effectively. The second diagram is also incomplete and, at best, of marginal relevance. An attempt is made to analyse factors that are likely to affect the sales of aircraft but the analysis is not well focused and is confused in places.

3 marks

Question 33

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]

Mark scheme

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.

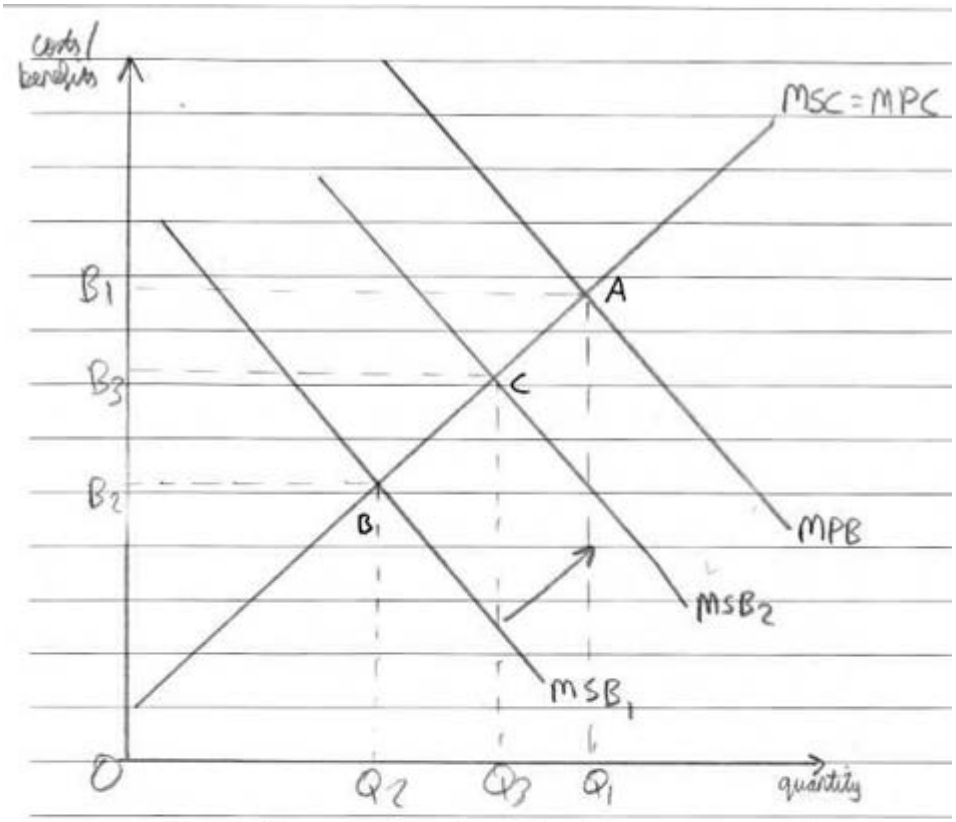
An answer that does not include any evaluation, either throughout the answer or in a supported recommendation, must not be awarded more than 13 marks.

Student responses

Response A

"Financial and other support" can include a wide range of government interventions / strategies including subsidies, ~~reductions~~ tax breaks for aircraft companies, training for workers in the field, and other measures.

Firstly, one significant advantage of UK government aid is that, as stated in Extract D, it "is helping the industry remain competitive" and develop new technologies to reduce the ~~...~~ environmental impact of air transport". Air travel has negative externalities (pollution) which mean that the marginal social benefit is lower than the marginal private benefit. By The UK government providing subsidies or other aid to reduce the environmental impact of flight means that the loss of benefits can be reduced: as shown in the diagram - the current output is ~~Q~~ at A, ~~at~~ Q_1, but the socially optimum output is Q2. By improving the MSB to MSB_2 by the new technologies reducing pollution, the social optimum quantity is now at Q_3 - the loss in benefits has been reduced. However, this is contingent



on aircraft companies actually using the money for environmental technologies, and not simply spending it on other things. It also means that the government's spending money on such aid, increasing government spending and possibly worsening the budget deficit.

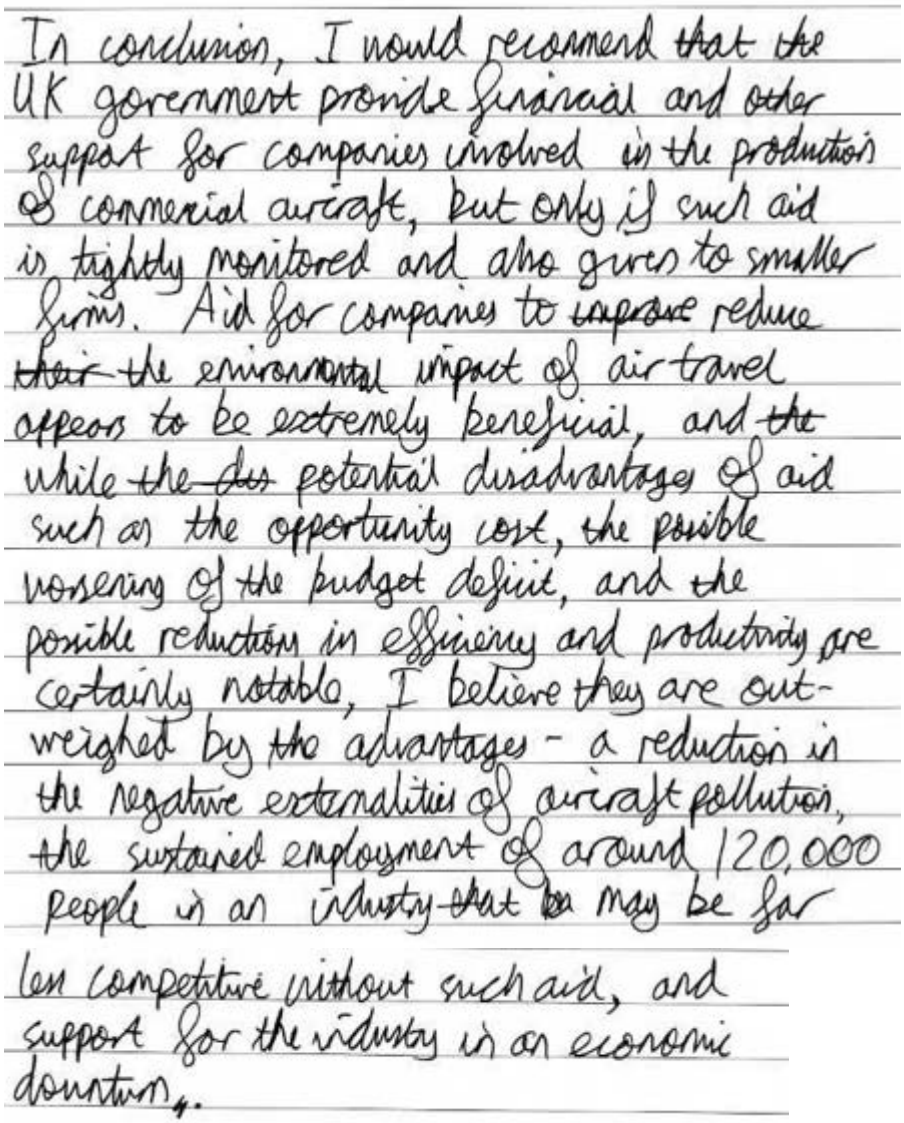
~~On the other hand, funding for other public services such as health could be decreased, or taxes could be increased, but this has the negative macroeconomic effect of decreasing~~ Such spending may also have an opportunity cost - if money is being spent on

financial aid to aircraft manufactures, it is not being spent on other things like healthcare ~~or~~ or education.

Extract D states that such support is "helping the industry remain competitive", implying that without such support the UK aerospace sector will be uncompetitive and that it may be ~~superseded~~ superceded by aerospace industries of other countries. This is important as the UK aerospace sector employs "over 120,000 skilled workes (Extract D), and if the sector becomes internationally uncompetitive many of there workes may become unemployed. Many jobs in the aerospace sector required extremely specialised knowledge and skill, and as a result a collapse in this industry could generate structural unemployment. Extract C states that "the market for commercial aircraft is subject to cyclical fluctuations in demand", while Extract A indicates that the sector has a "high income elasticity of demand". These factors make the sector especially vulnerable to ~~cyclical~~ recessions, meaning that financial aid could be critical in keeping companies operating during economic downturns. This is another highly beneficial aspect of government aid for aircraft companies.

However, state aid can also cause X-inefficiencies - as extract D states, "Firms can become too reliant on state aid, ~~reducing~~ reducing the incentive to increase productivity and competitiveness". If no aid was given, companies would be forced to innovate to stay competitive, ~~to~~ rather than using government money to do so. This could also force companies to attempt to improve ~~dynamic~~ productive efficiency and reduce costs as much as possible. On the other hand, this also risks the industry failing to sufficiently improve efficiency and ~~so~~ going under, and risks the unemployment of the 120,000 skilled workers in the industry.

Another disadvantage of state aid is that it provides significant advantages to incumbent firms over smaller firms, as stated by extract D - " It also makes it more difficult for new firms to enter the market." This means that competition is reduced and as a result, the price is higher than it otherwise would be. On the other hand, there are significant economies of scale in aircraft manufacture making it extremely difficult for small firms to grow, as their average costs are generally much higher than larger firms. In this case, it may be more beneficial for the government to continue providing aid for the other benefits it provides.


In conclusion, I would recommend that the UK government provide financial and other support for companies involved in the production of commercial aircraft, but only if such aid is tightly monitored and also given to smaller firms. Aid for companies to improve reduce their the environmental impact of air travel appears to be extremely beneficial, and the while the the potential disadvantages of aid such as the opportunity cost, the posible worsening of the budget deficit, and the possible reductions in efficiency and productivity are certainly notable, I believe they are out-weighed by the advantages - a reduction in the negative externalities of aircraft pollution, the sustained employment of around 120,000 people in an industry that is may be far less competitive without such aid, and support for the industry in an economic downturn.

This is a Level 5 response

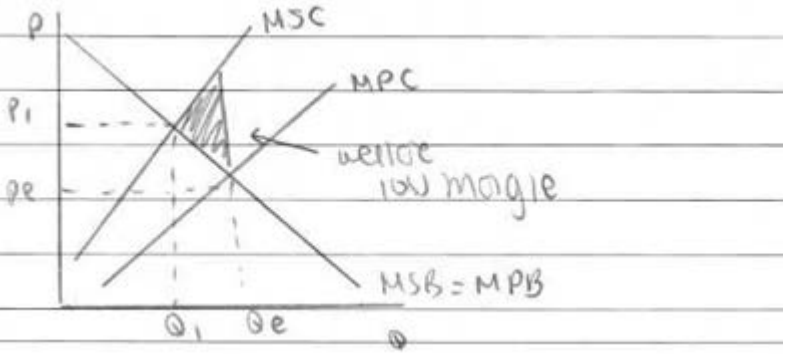
The answer makes effective use of the extracts to construct a response that is fully focused and examines a selection of key issues. Sound knowledge and understanding of economic principles is shown throughout and economic terminology is used appropriately. Good application of relevant economic principles is a strength of this answer. Arguments both for and against the UK government supporting the aircraft manufacturing industry are presented and evaluated. Evaluation is backed up by well-developed analysis and use of the data. The conclusion is thorough and includes a clear recommendation that is well supported.

25 marks

Response B

Government intervention is when the government intervene in a market to solve market failure or encourage factors such as positive externalities.

In Extract 0, it states that government financial support is helping the industry remain competitive and develop new technologies to reduce the environmental impact of air transport. In this case, I would recommend that the UK goverment provides financial support as it ~~create~~ helps to ~~reduce~~ reduce negative externalities of air pollution, and with new innovations and funding for more economical aircrafts, this can significantly impact society positively and prevent health issues. ~~and~~ *

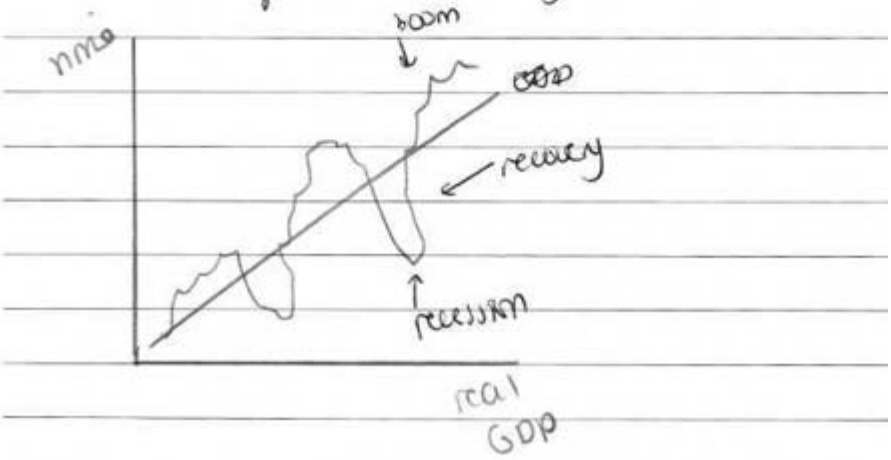


The diagram represents negative externalities in production. If the UK government didn't provide financial support to companies, they would continue to make less eco-friendly aircrafts due to lack of money to find more environmentally friendly planes, leading to welfare loss. The marginal social cost would be greater than the marginal private cost, leading to an overall net welfare loss to society from air pollution.

* As stated in Extract C, 'improvements in technology have meant that aeroplanes are now quieter and use less fuel per seat'. And with more funding (support), this can be expanded.

Furthermore, however, in the extract D it states that 'the US complained to the World Trade Organisation about subsidies for Airbus'. This means that UK government financial support could cause unfairness in markets and retaliation by other countries, so this may not be beneficial.

Furthermore, I would recommend that the UK government provided financial aid support to companies in production. As stated in extract C, 'the ~~recent~~ market for commercial aircraft is subject to cyclical fluctuations in demand that reflect the normal economic cycle of recession and recovery. With financial support from the government, during these uncertain times in a recession and less profit and revenue for airlines, it can help to save ~~active production~~ jobs and avoid the collapse of ~~as~~ some airlines with extra funding to keep them afloat until the industry booms again.

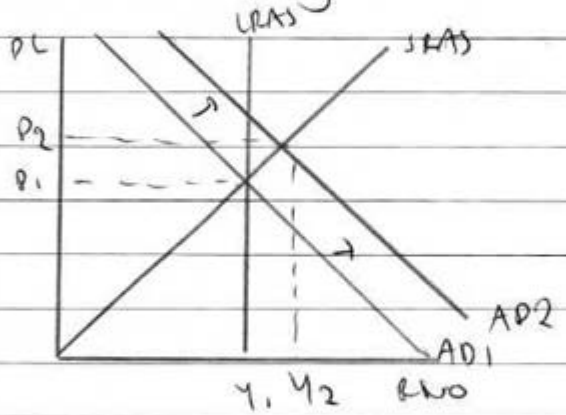


Extra space The business cycle diagram shows how in a recession, the ~~aircraft~~ airline industry will fall low as there is less transport of goods and travel. However, with goverment funding and support during a recovery the aircraft industry can bounce back ready for another boom in an economy.

However, in extract D it states that firms may become too reliant on state aid, reducing the incentive to increase productivity and competitiveness. In this case, goverment support may not be beneficial as firms may not want to invest and grow and not use the state aid wisely. In a recession, they may collapse completely due to purely relying on goverment funds rather than preparing money for a crisis, such as the pandemic, leading to a production of commercial aircraft unemployment.

Lastly, the UK goverment should provide financial and other support as

in extract D it says that 'the sector employs over 120,000 skilled workers'. With government support, the ~~circuit~~ commercial aircraft manufacturing industry can expand and therefore demand more workers, leading to more employment, increased productivity and economic growth. As ~~well as more income tax from employ~~



the ADAS diagram shows how an increase in employment will shift AD from AD1 to AD2, therefore leading to economic growth and more income tax for the government to spend and grow the economy even more.

* *

In conclusion, I think that the government should definitely provide financial and other support for companies in the production of commercial aircraft as it can reduce air pollution and negative externalities, as well as provide jobs and keep them in stable condition in a crisis. However, it should be considered that they may become too reliant and not use the funds efficiently, and other firms may retaliate.

~~However, in extract D it states that the sector employs workers 'mainly outside London and the South East'. This means that~~ concerning

However, during a recession, if more jobs get lost, governments may have to spend a lot on benefits and support people financially, causing an even bigger burden for the goverment financially.

END OF QUESTIONS

This is a Level 3 response

The answer demonstrates satisfactory economic knowledge and understanding but there are weaknesses. There is some reasonable, but limited, application of economic concepts and principles. Analysis is attempted but is not fully developed, for example, the explanation of the externality argument is incomplete. The economic cycle diagram is not used well and is flawed. Arguments both for and against the UK government providing support for the aircraft manufacturing industry are presented and there is a final recommendation. However, much of the evaluation is superficial.

15 marks

Response C

~~Government Intervention~~

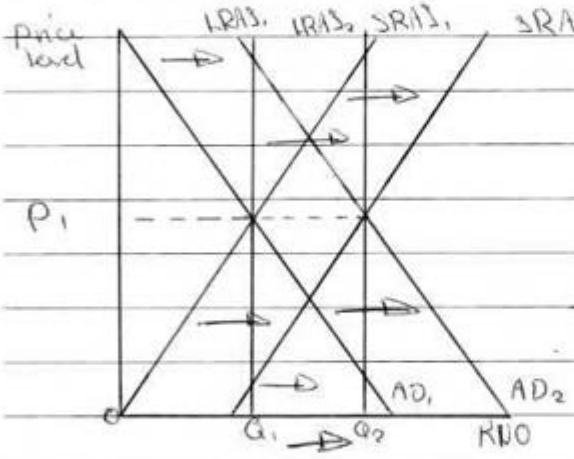
Having considered Extract D, as well as the additional evidence presented in the other extracts, I would ~~recommend~~ recommend that the UK government provides financial and other support to companies involved in the production of commercial aircraft.

Government intervention refers to the actions a government may take to prevent or ensure a particular outcome in a market, such as preventing market failure, reducing negative externalities, amongst other objectives.

One reason for this recommendation is that ~~as~~ Extracts D states "The UK's aerospace sector is a world leader in the manufacture of ~~aerospace, wings and advanced systems~~", meaning we have absolute advantage concern the development, production and enhancement of ~~technology within this sector~~. As "the sector employs over 120000 skilled workers" and "it is forecast that globally 39000 new passenger aircraft will be required over the next 20 years",

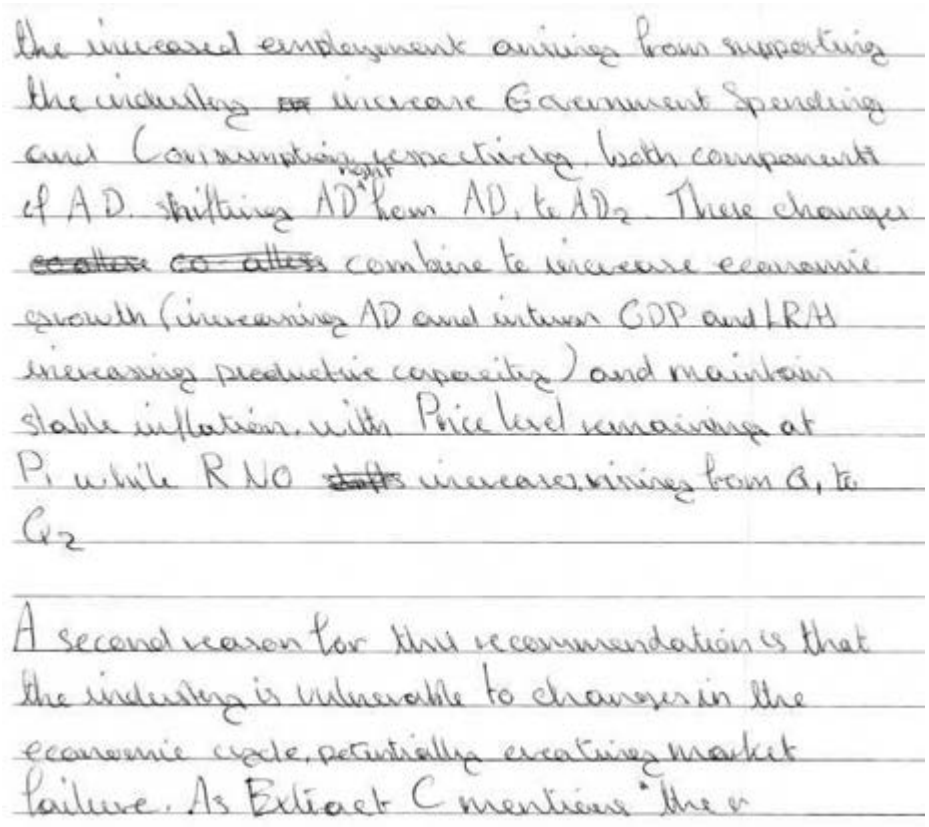
not only does the industry make up a large part of UK employment, but the industry is also expanding in turn likely to promote even greater UK employment - it and by supporting this industry, the UK government ~~[illegible]~~ secures and achieves one of its macroeconomic objectives, that being low-rising unemployment.

* The UK government achieves its macroeconomic objectives



Long run consequences of intervention into the aircraft industry

In the long run, ~~those subsidies provided to~~ the government intervention (presumably subsidies given to companies to reduce costs) shift SRAS right from SRAS1 to SRAS2, ~~[illegible]~~ and the improvement in labour following the reduction in unemployment shift LRAS from LRAS1 to LRAS2. Similarly the increased government spending arising from the intervention as well as



the increased employment arising from supporting the industry ~~or~~ increase Government Spending and Consumption respectively. both components of A.D. shifting AD right from AD_1 to AD_2. These changes ~~co alter~~ ~~co alter~~ combine to increase economic growth (increasing AD and in turn GDP and LRAS increasing productive capacity) and maintain stable inflation. with Price level remaining at P_1 while RNO ~~shifts~~ increases, rising from Q_1 to Q_2

A second reason for this recommendation is that the industry is vulnerable to changes in the economic cycle, potentially creating market failure. As Extract C mentions "the r

This is a Level 2 response

This response includes a preliminary recommendation in the opening paragraph, which is not unreasonable. However, it is limited in scope and does not consider arguments against the recommendation presented. There is some use of the data and an attempt to apply economic principles. Protecting employment is a reasonable argument in favour of the UK government supporting the industry but the analysis is thin. The discussion of the impact of supporting the industry on the macroeconomy has some merit but is not always convincing, for example, it is unlikely that it will help to maintain stable inflation. Overall, the response shows quite limited knowledge, understanding and application of relevant economic concepts and principles. Key issues have not been considered and the evaluation is weak and not well supported.

7 marks

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