New Specification

Rewarding Learning

General Certificate of Secondary Education
2011

Economics

Paper 1

[G9271]

TUESDAY 31 MAY, AFTERNOON

MARK SCHEME

AVAILABLE MARKS

Introduction

60 marks are allocated to the report-writing task for Paper 1. Candidates' reports will be marked holistically by examiners according to the following criteria. Candidates will be assessed on their ability to:

- recall, select and communicate their knowledge and understanding of economic concepts, issues and terminology [15];
- apply skills, knowledge and understanding to the context of the pre-released case study [18];
- analyse and evaluate evidence, make reasoned judgements and present appropriate conclusions [27].

For each of the above assessment criteria there are four levels of response. If no success has been demonstrated for any criterion then no mark should be awarded for that criterion.

A level 1 response indicates a limited performance.
A level 2 response indicates a fair performance.
A level 3 response indicates a good performance.
A level 4 response indicates an excellent performance.

Report-writing task: anticipated responses

Describe the link between road transport and concerns about climate change

The introductory paragraph outlines international concern about the link between pollution climate change. At the UN's Climate Change conference, held in Copenhagen in 2009, unsuccessful attempts were made to get countries to make legally binding agreement to reduce pollution. Transport, and car usage in particular, is thought to be a major cause of pollution. Source 1 states that CO_2 emissions from transport make up 21 per cent of total UK CO_2 emissions and that passenger cars contribute 58.3 per cent of this pollution.

CO_2 emissions from transport, and the resultant fears about climate change, represent the negative externalities arising from the choice of the private car as the dominant form of transport. Climate change is expected to bring about significant adverse social and economic changes to communities throughout the world. The collective effect of consumers' transport choices is having a profound impact on the sustainability of the globe.

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Explain how the demand for cars has changed in the past thirty years

Source 2, Fig 3 outlines how car ownership per household has changed between 1971 and 2007. Hence this shows the trends for the past 26 years and the following points could be made:

- the percentage of households without a car fell from 40 per cent to 25 per cent
- one car households stayed reasonable stable at approximately 43 per cent to 45 per cent
- two car households increased steady from approximately 14 per cent to 26 per cent
- the percentage of households with three or more cars rose from 3 per cent to 7 per cent
- car ownership was growing fastest among low-income families.

In addition, candidates may highlight that recent increase in demand for more environmentally friendly cars, possibly in response to government policies and some move away from the car altogether in favour of walking, cycling or using public transport. Increases in the price of petrol and diesel may also have had an impact on consumer choices or changes in income as a result of the recession.

There are a number of possible diagrams that candidates could include in their answer to illustrate changes in the demand for cars. They could indicate:

- the increase in household ownership of cars as shown Source 2
- increased preference for more fuel efficient cars, for example, cars bought through the scrappage scheme
- choices that involve reducing car use and substituting this with a less polluting transport choice
- increased demand for using public transport resulting in a fall in demand for cars
- other changes in behaviour such as increased demand for bicycles or more preference for walking as substitutes to using the car.

Consider the possible impact that reducing CO_2 emissions could have for car manufacturers, employers and providers of public transport

As a result of changes in the law regarding emissions as stated in Source 3, car manufacturers are being forced to develop models that are more fuel efficient. The new CO_2 banding scheme has also provided an incentive for car manufacturers to maximise the fuel efficiency of their cars. This means that firms will have to invest in research and development although they may benefit from external economies of scale if technology develops that can be shared across the industry. With the market shifting towards environmentally friendly vehicles, some manufacturers may be able to exploit this opportunity better than others to compete and grow.

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Employers may have to make changes to the services they provide for employees, and where relevant, to their fleet of vehicles. Car parking spaces may have to be reduced to provide space for bike parking. Employers may have to provide changing and showering facilities for workers. Employers that provide company cars, or have a fleet of vehicles, will have to replace these with more environmentally friendly models. Where transporting people or goods is a central part of the business activity, employers/firms may have to consider alternative, environmentally friendly options, such as transporting goods by rail (some of the supplies for the building of London's Olympic village are being transported by river).

Providers of public transport have an opportunity to develop their business if they are able to persuade people that they offer a more environmentally friendly and affordable option. Source 5 outlines how the bus company in the Isle of Wight has developed an alternative scrappage option for many sorts of vehicles, not just cars, and offered people a "free" bus pass for a year. They have researched their market and devised a novel scheme to try and compete and grow in the longer term. Providers of public transport may have to review their range of services and provide more regular, faster services so that people can realistically swap car use for public transport.

Evaluate the main road transport choices facing consumers if they are to limit pollution and reduce their impact on climate change

Maintaining the present situation is not likely to be an option. Government policies are combining to make higher polluting cars more expensive to run and maintain. Consumers are being encouraged to change their behaviour by the package of measures that promote more energy efficient models. The price of fuel is increasing. The relative advantages of some of the main options include:

- Replacing vehicles with more fuel efficient models

  In the short term this could be an expensive choice if consumers already own a reasonable car that they would otherwise have kept for a number of years. To purchase a more fuel efficient model now will put households to considerable expense. Even if they can afford to do this, there will still be an opportunity cost in terms of what else they could use this money for. Many households may simply not be able to afford to change their car either because their finances are very limited, their job is under threat in the recession and/or they are unable to secure a loan because institutions have introduced stricter lending criteria.

  However, since the introduction of the CO_2 grading scheme, consumers are being provided with good quality information to assist them make an informed and responsible choice.

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In the longer term, Source 6 states that consumers will have access to a greater variety of affordable energy efficient cars. Source 6 also highlights issues associated with the development of electric cars. Until such times as consumers change their car and replace it with either a new or second-hand more efficient model, they will be paying higher Vehicle Excise Duty and spending more on petrol.

The impact of this change will be good for car manufacturers if there is continuous demand for their newly developed vehicles. The government may also feel the impact. More VAT may be collected from sales but receipts from excise duty on cars and petrol will diminish if people are using more efficient cars.

The government is already investing in the development of low carbon technology. However, the shift from current technology to "new" technology may be very costly and may take longer than the upper time limit of the government's target. Source 6 discusses the devolved Scottish government's target to increase the use of electric cars by 2020. The issue is not straightforward and there are likely to be winners and losers.

- Change behaviour

There are many possible ways in which consumers could change their behaviour. Source 3 highlights the guidance that the government is giving to drivers to slow down and use their cars more efficiently. If consumers follow such guidance, there could be a significant reduction on emissions and pollution as well as reducing the cost of running a car. However, changing behaviour is very difficult. Source 2 outlines the RAC's research on attitudes to the car. Cars were seen as a necessity for work and general living and not just a luxury. Hence ownership among the lower income groups had increased in recent years. It also highlighted that people were well aware of the economic and environmental costs of running a car. The research concluded that it was unlikely that patterns of car ownership would change.

Schemes to encourage people to make better use of public transport, or to walk and cycle more, as outlined in Source 6, require a significant shift in behaviour. In each case incentives were being used to try and entice consumers away from their cars. Providing information and education to support a behaviour change were seen as an important component of the scheme in Nottingham. However, the impact of the £3 million investment may not have sufficient impact to bring about a significant shift in attitudes. In addition to reducing the negative externalities that result from pollution, a shift to walking and cycling is expected to produce positive health externalities. This outcome added to the more efficient use of private resources from not having to run a car, may result in an increase in social benefits and a reduction in social costs.

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Evaluate and recommend possible ways in which the UK Government could seek to reduce car polluion

The Government has already introduced a range of measures aimed at reducing car pollution. These include:

- Climate Change Act – set a target of an 80 per cent reduction in emissions by 2050
- CO_2 labels in car showrooms
- taxes, e.g. Vehicle Excise Duty linked to CO_2 emissions and fuel type, and excise duty on fuel
- subsidies – car scrappage scheme in 2009-10, although it could be argued that this has more to do with supporting the car industry during the recession
- investment in research to develop new low carbon technology – as outlined in Source 6
- setting an example – ensuring that government departments make environmentally friendly transport choices
- grants to bus companies to support low carbon options
- information and guidance – information on the Department for Transport's website about how individuals can reduce car pollution
- promotion and education about walking and cycling
- developing integrated transport networks to allow people to combine walking or cycling with public transport, e.g. £10 million spent on improving bike storage at railway stations.

Each of these actions has implications for public sector finances. Candidates will be expected to discuss the relative costs and benefits of a range of actions. The discussion should include recommendations about actions that are likely to be most effective with a supporting explanation about the choice.

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Levels of response: guidelines for examiners

The following guidelines are provided for examiners in identifying levels of response for each assessment criterion:

(AO1) Recall, select and communicate their knowledge and understanding of economic concepts, issues and terminology:

Level of response	Description	Mark
0	No relevant concepts, issues and terms are included in the report.	**0**
1	Few relevant concepts, issues and terms are included in the report. There is only very restricted evidence of understanding. Quality of written communication is limited.	**1–5**
2	Relevant concepts, issues and terms are included in the report. There is some evidence of understanding. Quality of written communication is satisfactory.	**6–9**
3	Most of the report makes effective use of relevant concepts, issues and terms. There is evidence of good understanding. Quality of written communication is of a high standard.	**10–12**
4	The report makes extensive and skilful use of a wide range of relevant concepts, issues and terms. There is clear evidence of highly developed understanding. Quality of written communication is excellent.	**13–15**

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(AO2) Apply skills, knowledge and understanding to the context of the pre-released case study:

Level of response	Description	Mark
0	No relevant skills, knowledge and understanding are applied to the economic challenge of climate change.	**0**
1	A restricted range of basic skills, knowledge and understanding are applied to the economic challenge of climate change. Quality of written communication is limited.	**1–6**
2	Some relevant skills, knowledge and understanding are applied to the economic challenge of climate change. Quality of written communication is satisfactory.	**7–10**
3	A good range of relevant skills, knowledge and understanding are effectively applied to the economic challenge of climate change. Quality of written communication is of a high standard.	**11–14**
4	A wide range of relevant skills, knowledge and understanding are successfully applied to the economic challenge of climate change. Quality of written communication is excellent.	**15–18**

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(AO3) Analyse and evaluate evidence, make reasoned judgements and present appropriate conclusions:

Level of response	Description	Mark
0	No relevant analysis, evaluation, judgement or conclusion provided.	**0**
1	Evidence is only superficially analysed and there is little attempt at evaluation. Basic judgements are made but tend to lack reasoning. Conclusions and recommendations are unsupported. Quality of written communication is limited.	**1–9**
2	Evidence is partially analysed and evaluated. Some relevant judgements are made but inadequately explained. Conclusions and recommendations are presented but insufficiently supported. Quality of written communication is satisfactory.	**10–15**
3	Most evidence is analysed and evaluated. Relevant and reasoned judgements are made. Conclusions and recommendations are appropriately presented and adequately supported. Quality of written communication is of a high standard.	**16–21**
4	Nearly all evidence is comprehensively analysed and evaluated. All judgements are well reasoned and consistent. Conclusions and recommendations are clearly presented and well supported. Quality of written communication is excellent.	**22–27**