Rewarding Learning

General Certificate of Secondary Education
2016

Economics

Paper 1

[G9271]

MONDAY 6 JUNE, AFTERNOON

MARK SCHEME

General Marking Instructions

Introduction

Mark schemes are published to assist teachers and students in their preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

The Purpose of Mark Schemes

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of students in schools and colleges.

The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and the mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes, therefore, are regarded as part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all the markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

Introduction

AVAILABLE MARKS

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 marks);
- apply skills, knowledge and understanding to the context of the pre-released case study (18 marks);
- analyse and evaluate evidence, make reasoned judgements and present appropriate conclusions (27 marks).

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

The following is an indication of the areas that candidates might be expected to cover in their report.

Describe the trends in the sales of new cars in the UK between 2007 and 2014.

Source 1 shows the sales of new cars in the UK from 2007 until 2014. Key points include:

- In 2007, 2.4 million new cars were sold
- Sales fell rapidly between 2007 and 2009 to just over 2 million
- This downward trend continued between 2009 and 2012 where sales stayed close to 2.0 million
- From 2012, sales started to increase but these were still below the 2007 levels until 2014
- The largest yearly increase was in 2014 when approximately 2.5 million cars were sold, and the first time that sales of new cars were higher than in 2007
- The proportion of petrol fuelled cars has fallen from 59.1% in 2007 to 48.8% in 2013, although there was a very slight improvement to 50% in 2014.
- Diesel cars share of the market increased from 40.2% to 47.9% over the same period with 2013 having the highest proportion at 49.8%
- Alternative Fuel Vehicles (AFVs) increased from less than 1% of the market in 2007 to 2.1% by 2014.

Source 2 shows that the average energy efficiency of new cars improved between 2007 and 2013 from 128.3g/km to 95g/km hence one of the key trends is that new cars are more environmentally friendly.

Explain the factors that affect the demand for new cars in the UK.

AVAILABLE MARKS

Demand for new cars, like any product, is influenced by some of the following factors: changes in population; effects of legislation or changes in the law; advertising, changes in taste and fashion, income, the price of complements/substitutes and changes in consumer confidence.

Based on the source material, two key factors seem to be driving demand – 1. income and 2. the system of taxes that favour more environmentally friendly models of cars.

Income

- Source 2 outlines how PPI Insurance payouts, combined with cheap finance, have helped to increase demand at a time when the economy has not been performing well
- The low interest rate environment may also have had an impact as loans to buy new cars will be cheaper.

Legislation/Changes in taste and fashion

- The switch to environmentally friendly cars could be caused by a change in legislation, and, to achieve this, the government has set up a system of Vehicle Excise Duty (VED) rates that favour low CO_2 emitting cars.
- This explains a change in taste rather than an overall shift in demand.
- High levels of excise duty on petrol and diesel have had an influence on shifting demand to more environmentally friendly cars as VED and fuel are complements to cars. When the prices/costs of these increase, the demand for cars decreases, and/or there will be a switch in demand towards buying more diesel fuelled and alternative fuelled models. (Source 5)
- Government subsidies to consumers, such as the £2000 in the scrappage scheme in 2009/2010 (Source 2), and the £5000 towards the purchase of an ultra-low emissions vehicle (Source 4), are influencing consumer demand and changing taste and fashion in relation to the purchase of a new car.
- The lacklustre demand for new cars at some periods between 2007 and 2013 could also be explained by the success of substitutes such as better bus service or alternative modes of transport such as bicycles. (Source 6)
- There may also have been a change in taste and fashion as people's attitudes to owning and using cars are changing and they are opting for healthier, as well as environmentally friendly, options. Candidates may draw on Sources 7 and 8 for this analysis.

Candidates may explain the change in demand within the car market as well as the overall increase in demand for cars.

Explain factors that affect the supply of new cars in the UK.

The supply of new cars, like any product, may be influenced by some of the following factors:
costs of production and effects on productivity, taxes and subsidies (grants), weather conditions, new technology.

Investment/Costs of production/new technology

The introduction and Source 3 outline the investment by car manufacturers in environmentally friendly models of cars that meet the diverse needs of consumers.

AVAILABLE MARKS

These include:
- increased numbers of AFV models, from 18 in 2007 to 47 in 2013 (Source 3)
- improved efficiency of petrol and diesel fuelled cars
- investment in enabling car manufacturers to develop products that consumers want and production techniques that will allow them to mass produce these new models so that they can reduce the average cost and pass on the benefits of economies of scale to the buyers in the form of lower prices. In spite of this, the selling prices of AFV models remain high. (Sources 7 and 4)

Subsidies
- Government subsidies are also affecting the supply of cars. Source 4 outlines how the government will invest £500 million by 2020. Some of this will be spent on supporting the infrastructure such as charging points for electrically powered vehicles and investment in new technology
- The scrappage scheme, while a subsidy for consumers, influenced manufacturers towards increasing production of more energy efficient cars.

Global market pressures such as the high increase in oil prices in 2009 stimulated interest in fuel efficient cars.
EU directives and targets as indicated in Source 2 have had a profound impact on the direction of the market and the type of cars that manufacturers are supplying.

Weather conditions are not a relevant factor for this context.

Discuss the social costs and benefits associated with owning and using a car.

Social costs and benefits are the private costs and benefits plus the external costs and benefits, positive and negative externalities.

Possible social costs and benefits associated with owning and using a car are:

Private benefits	**Private costs**
• Convenience – door to door transport • Cost of transporting the whole family relative to using public transport • Can be faster than using public transport • Fun – some people enjoy owning a nice car and driving e.g. convertible models on a sunny day	• Purchase cost of the car • Running costs such as insurance, car tax, fuel, repairs, MOT • Parking costs and any fines incurred • Vehicle Excise Duty (VED) • Toll charges and congestion charges
Positive externalities	**Negative externalities**
• Demand for cars, and keeping them roadworthy, creates jobs and contributes to the economy • 50% of the purchase price of fuel goes on tax – thought to be the highest in Europe, and contributes £40 billion per year to the government's revenue that is used to fund public services • Vehicle Excise Duty contributes £6 billion each year to government revenue • Good transport communications helps to foster social cohesion	• Pollution • Congestion that slows down travel times for people and business – this is estimated to be a substantial cost to the economy • Damages health if people drive too much rather than walking or cycling for shorter journeys. Eventually, this will cost the NHS and reduce life expectancy • Cost of accidents leads to high car insurance premiums

Discuss whether the measures followed by the government to promote more environmentally friendly car use have been successful and recommend policies for the future.

AVAILABLE MARKS

The Source material outlines a number of government-funded initiatives that have been used to influence environmentally friendly car use. Evidence about the relative success of these measures varies but points may include:

a. A graded system of car tax based on CO_2 emissions, and high rates of excise duty on petrol and diesel that account for 50% of the purchase price at the pump
   - These actions appear to have had a positive influence on consumer choice as average levels of CO_2 emissions are falling on new cars according to Source 2.
   - Higher sales of diesel and AFV cars is evidence of some success. However, car manufacturers consider that sales of new hybrid cars and AFVs are slow and that the government could do more.
   - It could be argued that the policies have been too successful from the government's point of view because of the impact on receipts of tax revenue. As consumers opt for fuel efficient and environmentally friendly cars, tax receipts are expected to fall and this will create a gap in government revenue in the future.
   - Overall, the current system of VED could be viewed as having a regressive impact on consumers.
   - High taxes on fuel have caused protests and may have contributed to an increase in fuel smuggling.

b. Providing subsidies such as research and development grants for car manufacturers and for the provision of fuelling points for electrical cars:
   - Manufacturers have developed a greater range of AFV cars so this is some evidence of the success of policies. However, car manufacturers have invested heavily themselves and the extent to which the low level of government subsidy has helped is open for debate. It is reported that manufacturers think that the government action is too little.

c. Subsidies of up to £5000 to help with the purchase of AFV cars:
   - By 2014, 2.1% of new car sales were classified as AFV models. Based on total sales of over 2 million, this is approximately 32 000 but only the pure electric cars were eligible for the subsidy of up to £5000. The total sum of money allocated by the government is £200 million and this would be sufficient to subsidise 40 000 cars by 2020 or 8000 per year over 5 years. Compared to the total number of cars sold per year, this is a very small proportion. Government subsidy to buy a particular AFV car, for example an electric car, is not having a big impact on the market. But only substitution of an older technology car to a "green" car should reduce pollution. There are arguments that the net effect may not be positive if the full cost of building the "green cars" is included on top of their operating costs.

d. Campaigns such as '*Not far? Leave the car*' in Scotland, and the investment in sustainable transport schemes in England that promote alternatives to using the car such as car sharing, use of public transport, use of bicycles and walking:
   - The source material points to changes in people's attitudes about using cars and choosing more environmentally friendly cars but at this early stage, it is difficult to judge and measure success.
   - Given the slow move towards buying more environmentally friendly vehicles, it would appear that these schemes are certainly supporting changes in behaviour and may also lead to improved health and welfare.

e. Research and Development (R & D)
Source 4 outlines how the government is investing in the promotion of electric and other green cars. This introduction highlights how car manufacturers are investing heavily in the R & D needed to develop more environmentally friendly models of cars and to some extent this is being stimulated by public sector involvement.

- In the current climate of budgetary constraint, it is unlikely that the government will be able to allocate more resources. The car manufacturers appear to view government investment to date as too little so reliance on government finance alone is likely to be unsuccessful. Some interventions have been very successful such as the scrappage scheme and the graded scheme of VED in persuading people to switch.

In relation to the future, the source material points to the need to further reduce CO_2 emission in cars in order to meet the EU target that has been set for 2020. It also highlights uncertainty as consumers' attitudes to buying and using cars is changing. The government is also likely to experience budget problems if tax revenue receipts from car transport fall and may have to look at alternative ways of raising revenue from car transport. An argument could be made that if policies to promote more environmentally transport are too successful, this will not be in the interests of the wider economy as the government will have less revenue to spend on providing public goods and services such as education or health provision. There is also an opportunity cost associated with any government subsidy to the industry.

If the government wants to promote greater uptake of AFV cars, it will need to further support the development of the infrastructure, the refuelling/charging points. It will also need to support research and development and more schemes like the sustainable transport scheme mentioned in Sources 7 and 8.

Levels of response: guidelines for examiners

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

AVAILABLE MARKS

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

AVAILABLE MARKS

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:

AVAILABLE MARKS

Level of response	Description	Mark
0	No relevant skills, knowledge and understanding are applied to the topic of the market for energy efficient cars.	**0**
1	A restricted range of basic skills, knowledge and understanding are applied to the topic of the market for energy efficient cars. Quality of written communication is limited.	**1–6**
2	Some relevant skills, knowledge and understanding are applied to the topic of the market for energy efficient cars. Quality of written communication is satisfactory.	**7–10**
3	A good range of relevant skills, knowledge and understanding are effectively applied to the topic of the market for energy efficient cars. 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 topic of the market for energy efficient cars. Quality of written communication is excellent.	**15–18**

18

(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**

AVAILABLE MARKS

27

Total **60**