



General Certificate of Secondary Education  
2016

Centre Number

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Candidate Number

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# Economics

Paper 1

[G9271]

MONDAY 6 JUNE, AFTERNOON



G9271

## TIME

1 hour 15 minutes.

## INSTRUCTIONS TO CANDIDATES

You should write your report in the spaces provided in this question and answer booklet. If you do not have enough space to complete your answer, extra lined pages are provided at the back of the booklet.

## INFORMATION FOR CANDIDATES

The total mark for this paper is 60.

The task and marking criteria are described on page 2.

Your quality of written communication will be taken into account in assessing your report.

This paper is accompanied by a Case Study.

## ADVICE TO CANDIDATES

You are advised to spend at least 10 minutes:

- Reading the task
- Reading through the Case Study
- Identifying parts of the Case Study that you might use in writing your report.

Writing your report should take about one hour. You may include diagrams where appropriate.

For Examiner's  
use only

Question Number	Marks
AO1	
AO2	
AO3	

Total  
Marks

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## The Task

As an economics student, you have studied information about the energy efficient car market in the UK. You have been asked to write a report on this topic for your school magazine.

Using the Case Study, any other relevant information you have studied and your own knowledge and understanding of economics, write the report which clearly explains the factors that influence demand and supply of energy efficient cars in the UK. Your report should also discuss the social costs and benefits associated with car usage, and the extent to which government measures to promote more environmentally friendly car and travel options are successful.

In your report, you should:

1. give a brief introduction setting out what your report is about
2. describe the trends in the sales of new cars in the UK between 2007 and 2014
3. explain the factors that affect the demand for new cars in the UK
4. explain the factors that affect the supply of new cars in the UK
5. discuss the social costs and benefits associated with owning and using a car
6. evaluate whether the measures followed by the government to promote more environmentally friendly car use have been successful and recommend policies for the future.

## Assessment

Your report will be assessed on your ability to:

- recall, select and communicate your knowledge and understanding of economic concepts, issues and terminology **(15 marks)**;
- apply economic skills, knowledge and understanding about the energy efficient car market in the UK **(18 marks)**; and
- analyse and evaluate evidence, make reasoned judgements and present appropriate conclusions **(27 marks)**.

## 1. Introduction

## 2. Trends in the sales of new cars between 2007 and 2014

9925

### 3. Factors that affect the demand for new cars in the UK

Examiner Only	
Marks	Remark

[illegible]

Examiner Only	
Marks	Remarks

**4. Factors that affect the supply of new cars in the UK**

Examiner Only

Marks Remark

[illegible]

Examiner Only	
Marks	Remark

## 5. Social costs and benefits associated with owning and using a car

Examiner Only	
Marks	Remark



[illegible]

Examiner Only	
Marks	Remark

**6. Evaluation of policy measures to promote environmentally friendly car use and recommendations for the future**

Examiner Only

Marks Remark

[illegible]

Examiner Only	
Marks	Remarks

Continuation page (use this page if you need more space to complete your report).

[illegible]

Examiner Only	
Marks	Remarks

Continuation page (use this page if you need more space to complete your report).

Examiner Only	
Marks	Remarks

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**THIS IS THE END OF THE QUESTION PAPER**

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General Certificate of Secondary Education  
2016

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# Economics

Case Study  
for use with Paper 1  
The Energy Efficient Car  
Market in the UK



G9271

**[G9271]**  
**MONDAY 6 JUNE, AFTERNOON**

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You must use **this** clean copy of the Case Study in the examination  
and not your own annotated copy.

## Case Study: The Energy Efficient Car Market in the UK

### Introduction

In the UK, over two million new cars and eight million used cars are sold every year. When making personal transport choices such as buying a new car for home or work, the government is encouraging consumers to choose more environmentally friendly cars that reduce carbon dioxide (CO<sub>2</sub>) emissions. The European Union (EU) has set challenging targets for the car industry that require it to reduce CO<sub>2</sub> emissions by 45% between 2007 and 2020. Progress is good, but to achieve this target, more people will need to choose cars that emit lower emissions.

Consumers demand cars to meet their own particular preferences, for example, space, utility and performance. However, cars are not always the most economical or environmentally friendly transport choice. Choosing a private car as your transport choice generates social costs and benefits.

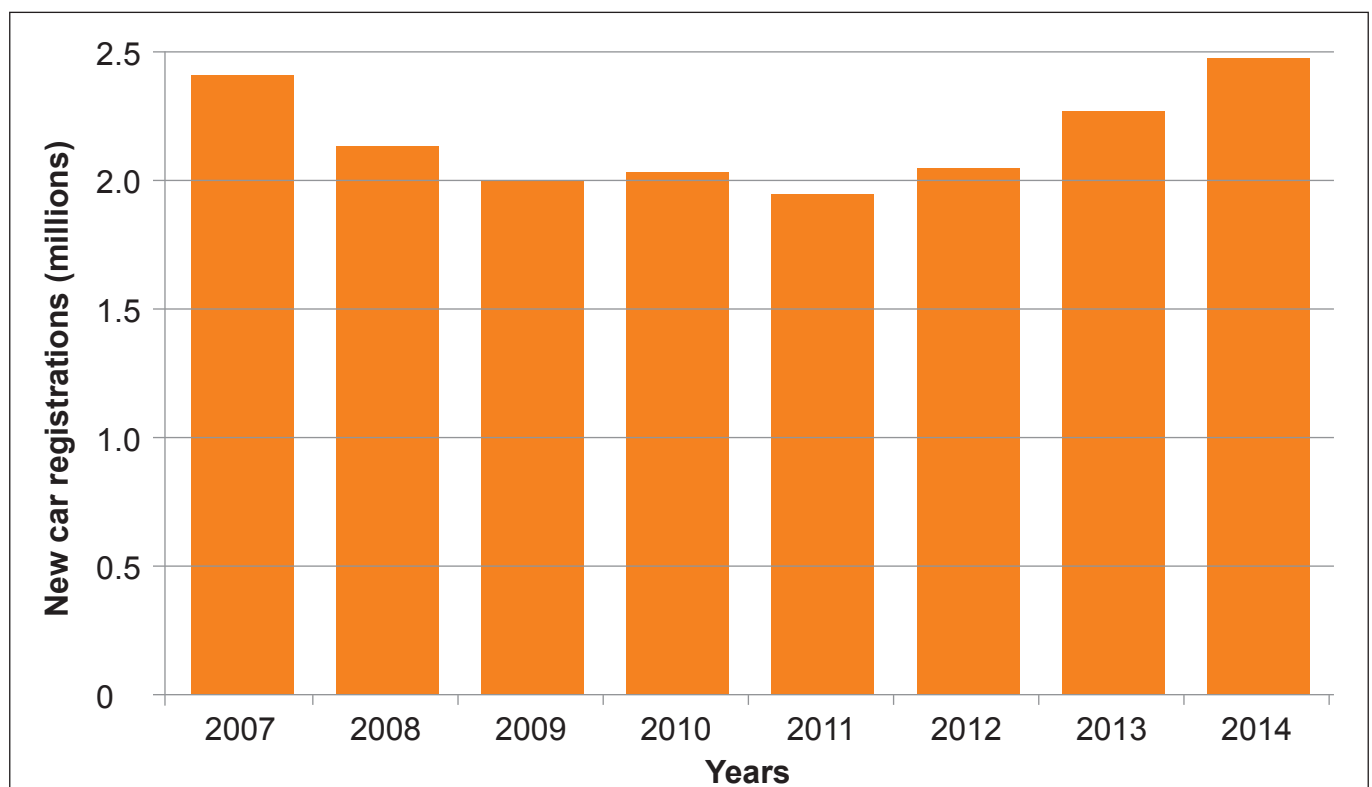
Car producers aim to meet the needs of consumers by producing a broad range of vehicle types. Many car manufacturers are investing heavily in research and development to develop more environmentally friendly models of cars that meet the diverse needs of consumers.

The government is also playing an important role in strengthening the market through targeted policies to influence the demand and supply. There are many risks involved in designing appropriate policies and making sure that investment is targeting the most relevant areas and supporting appropriate technology. Alongside these developments, consumer attitudes to owning cars and using car transport are changing and the future is difficult to predict.

© Beltramello, A. (2012), "Market Development for Green Cars", OECD Green Growth Papers, No. 2012-03, OECD Publishing, Paris.

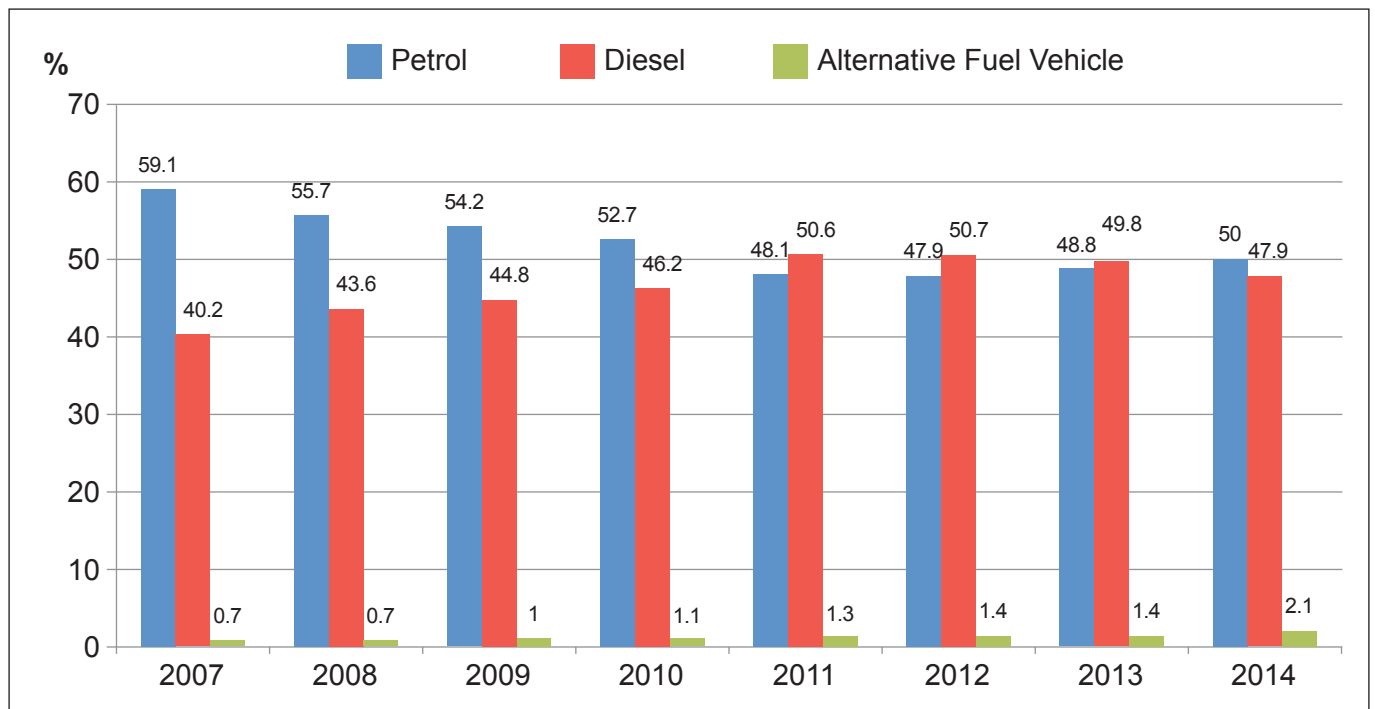
### Source 1: UK car sales

#### New Car Sales in the UK 2007–2014



© The Society of Motor Manufacturers and Traders (SMMT)

### Annual UK new car registrations by fuel type



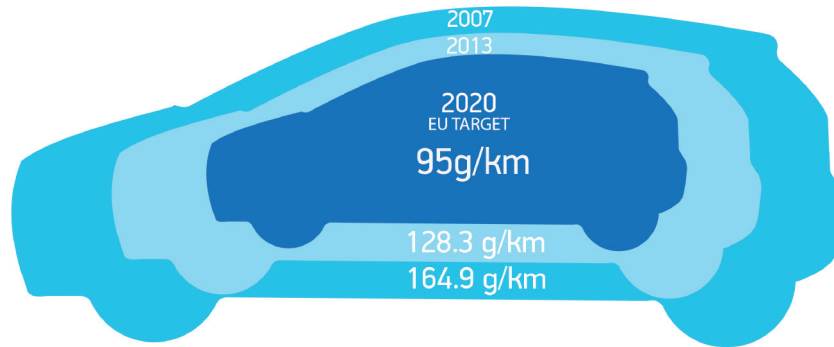
© The Society of Motor Manufacturers and Traders (SMMT)

The Society of Motor Manufacturers and Traders (SMMT), the trade association that represents the industry, reported that UK car sales in 2014 reached their highest level since 2007. Growing consumer confidence was thought to be the main factor that caused this change. New cars were being bought by many of the consumers who had received compensation from the financial sector following the mis-selling of payment protection insurance (PPI). The £3500 average PPI payout helped many to fund a deposit. The market was also boosted by the availability of cheap finance deals from the motor retailers.

The Chief Executive of the SMMT commented that it was hard to measure the precise impact of PPI compensation on the car industry. However, 600 more cars were sold every day throughout 2013 compared to 2012 at a time when car sales across Europe were falling. One economist warned that while PPI compensation and cheap credit have helped promote new car sales, this situation was unlikely to continue unless the economy improves.

© UK car sales at highest since onset of financial crisis by Angela Monaghan. Published by The Guardian, 07 January 2014

## Source 2: The UK car market is going 'green'



**Diagram 1. Average CO<sub>2</sub> Emissions of New Cars are falling**

The UK car market is shifting to lower CO<sub>2</sub> emitting cars. In April 2009, the government supported a voluntary discount scheme whereby motor dealers gave car owners a discount of £2000 towards buying a new car if they traded in a car that was over 10 years old. The aim of the scheme was to provide a boost in demand and immediate support on a short term basis to the new car industry and its supply chain, due to falling sales during the recession. The scheme also aimed to remove older vehicles from the road and encouraged motorists to invest in a new, safer and potentially environmentally friendly car. By January 2010, 300 000 new cars were bought through the 'scrappage scheme'.

In 2013, 63.3% of new car registrations met the EU's 2015 target and this reduced their liability for vehicle excise duty (VED). Car manufacturers have invested heavily in technology that reduces the CO<sub>2</sub> emissions of their conventional petrol and diesel models. They have also invested in the development of Alternative Fuel Vehicles (AFV) that use a range of more environmentally friendly fuel types such as alcohol, electricity and liquefied petroleum gas (LPG).

© The Society of Motor Manufacturers and Traders (SMMT)

**Source 3: Alternative Fuel Vehicles – the future?**

The number of Alternative Fuel Vehicle (AFV) models available to consumers 2007–2013			
<b>Fuel Type</b>	<b>2007</b>	<b>2010</b>	<b>2013</b>
Petrol/fuel electric hybrid	5	10	24
Diesel electric hybrid	0	0	5
Pure electric	2	5	12
Other plug-in vehicle	0	0	5
Other (e.g. Alcohol and LPG fuel)	11	6	1
<b>Total number</b>	<b>18</b>	<b>21</b>	<b>47</b>

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Report - Social Trends 41: Transport by Office for National Statistics. ISSN – 2040-1620

Alternative Fuel Vehicles (AFV), so called “green cars”, could make an important contribution to reducing the greenhouse gases that are blamed for polluting the environment and damaging health. Other benefits include reducing reliance on imported fuel and providing the government with new sources of economic growth and competitiveness.

“Green cars” are generating increased interest among policy makers, businesses and consumers but their economic and environmental benefits are still uncertain. Several factors are slowing the development of the market. These include the high price of “green” cars relative to conventional petrol and diesel fuelled vehicles, the lack of refuelling and recharging infrastructure and the longer time needed to refuel than with conventional vehicles. Furthermore, many consumers believe that an AFV car would not meet their needs even though 70% of car trips are between 1 and 10 miles.

© The Society of Motor Manufacturers and Traders (SMMT)

#### Source 4: Government investment for “green” car production

The government has promised to spend £500 million before 2020 encouraging the use of electric and other green cars. Their aim is to strengthen demand in a market that appears slow to adopt this new driving technology. The money is expected to be spent on providing infrastructure such as public charging points and on research and development grants. The government is expected to spend £200 million of this investment by extending a scheme that provides a grant of £5,000 towards the purchase of an ultra-low emission vehicle.

Electric cars are considered by many in the car industry as the most likely replacement for traditionally powered vehicles but drivers have given them a lukewarm reception. A spokesperson for the government said that owning an electric car is no longer a dream or an inconvenience. This major investment is designed to make driving an electric car affordable, convenient, and free from anxiety about the battery running out. The government also hopes that it will help to change attitudes and make electric cars more attractive to drivers.

There are a number of factors that influence the supply of new cars. Car makers such as Nissan, Renault, BMW, Toyota and General Motors, which all build electric cars sold in the UK, publicly back the government's attempts to support the market for these vehicles. But executives say privately that the government has not done enough to make the new technology attractive to drivers.

A representative of the SMMT said that the funding package will help secure additional private sector investment that will help to develop affordable and reliable “green” cars. However, more needs to be done to support academic research in this area to develop the skills that will be essential if the UK is to become a global leader in ultra-low emission technologies.

© Clegg announces £500m green car investment by Henry Foy. Published by The Financial Times, 19 April 2014.  
<https://next.ft.com/content/3e61b80a-cef8-11e3-9165-00144feabdc0>

#### Source 5: Vehicle Excise Duty and the revenues from taxing motorists

The rate of vehicle tax for cars is based on the engine size or on fuel type and carbon dioxide (CO<sub>2</sub>) emissions, depending on when the car was registered. The table below shows examples of rates of car tax for 12 months for a selection of new cars when first registered.

Vehicle Excise Duty: Tax Bands related to Levels of Emissions		
Vehicle Excise Duty (VED) Band	CO <sub>2</sub> Emissions/ g per km	Rate of VED (£s) in first year of purchase
A	Up to 100	£0
F	141-150	£140
M	Over 255	£1065

In spite of the increased volume of cars on our roads, tax revenue is expected to fall as consumers switch to more fuel efficient vehicles that attract a lower tax. Most of the tax revenue that drivers pay comes from duties on fuel rather than Vehicle Excise Duty (VED). Taxes on petrol and diesel in the UK are among the highest in the world and bring in £40 billion of revenue to the Treasury while VED only raises £6 billion per year. Historically, fuel duty has been used both to raise revenue for the government, and to a lesser extent, manage the level of car use for environmental reasons. The government is looking at ways to compensate for the reduction in revenue from VED and duties on fuel. VED bands may be reviewed and there is discussion about privatising the road network and charging drivers for use on a per mile basis.

© Tax wheezes that drive motorists to distraction by Philip Johnston. Published by The Telegraph, 29 October 2012 and

© Fuel for Thought, The what, why and how of motoring taxation by P. Johnston, A. Leicester and G. Stoye.

Published by Royal Automobile Club Foundation for Motoring, May 2012

### Source 6: Social attitudes are changing

More people could just as easily walk rather than use their car for many of their shorter journeys of less than two miles, according to a new government survey. Nearly a third of those interviewed said that they could just as easily catch the bus, or cycle if they owned a bicycle.

The survey also showed that 75% of people in 2012, 5% more than in 2011, were willing to buy a car with lower CO<sub>2</sub> emissions to reduce the impact of their travel on climate change.

Alongside this change in attitudes, in England the government is providing £64 million to support sustainable transport schemes at local level such as better cycling and walking infrastructure, and improved co-ordination of bus routes and timetables. Local authorities have to match the funding and show how their projects will:

- Contribute to economic growth
- Benefit the environment
- Increase the numbers of people who cycle or walk
- Improve health
- Streamline door to door journeys for residents.

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Report - British Social Attitudes Survey 2012: public attitudes towards transport by the Department of Transport, July 2013 and  
Local Sustainable Transport Fund 2015 to 2016 from the Department for Transport and Stephen Hammond, 14 July 2014.

### Source 7: “Not far? Leave the car”

A national campaign has been launched to encourage people across Scotland to consider walking or cycling instead of taking short car journeys. The campaign carries the message “Not far? Leave the car” and aims to highlight that making active travel choices for short journeys, rather than using the car, can make the environment cleaner and greener, and improve people’s health and well-being. The Scottish government plans to make it easier and safer for people to get active by investing over £58 million in cycling and walking projects.

The Minister for the Environment stated: “We’re all in the habit of jumping in the car for short trips that we could easily walk or cycle. Mile for mile, it’s the short car journeys that create the most carbon emissions – and with one in three car journeys made in Scotland being under two miles, and nearly a quarter of all trips under a mile – it’s vitally important that steps are taken to encourage people, where possible, to make active travel choices”.

A new “app” has been launched as a fun and interactive way to get people involved, allowing them to track exactly how active travel will benefit them and their surroundings. Getting active is easy, simple and the most effective way to improve health and reduce risk of serious illness. It can add years of quality life, make people feel happier, less stressed and more energised.

Public transport and car sharing are being promoted as great ways to cut carbon emissions especially when walking or cycling are just not possible. Smarter day to day travel choices, like walking to school or work, can have a real impact on improving the environment.

The campaign stresses that people will be amazed at the difference a short blast of fresh air every day can make. Walking is free, green and easy, and helps improve body and mind.

© Crown Copyright. Contains public sector information licensed under the Open Government Licence v3.0. Article - Not far? Leave the car by the Scottish Government, 07 May 2013. <http://www.gov.scot/News/Releases/2013/05/Activetravel07052013>

### Source 8: What is the future for the car?

Cars have been a central part of modern life and their production makes a significant contribution to the economy. In the UK, nearly 750 000 workers are employed directly in the manufacture of vehicles. Car exports account for over £30 billion per year and make up 10% of total exports.

Financing a car is a major part of household expenses after paying rent or a mortgage. Economists predict that sales of cars throughout the developed world have reached their peak and are expected, if anything, to decline.

The recession has had a major impact and people in the UK now make fewer journeys by car. Another trend is that the average age of new drivers is increasing. The cost of insurance for younger drivers, combined with high fuel costs, make owning and running a car for a young person an expensive choice.

A new survey of teenage attitudes found that young people increasingly view cars as appliances rather than something that fulfils their aspirations. Instead of using cars to socialise face to face, young people are using social media as a substitute for some car trips.

Online shopping is also reducing the need to drive to shops and is another factor that is causing people to rethink whether they need to own and run a car. Alternatives to private car ownership, such as car clubs, are gaining in popularity. Households and communities form clubs to share the ownership of cars that are available to hire when needed. Successful schemes in North America and throughout Europe show that a single car that can be hired when needed can replace 15 owned cars.

Some European cities, including London, are planning to drastically reduce the number of cars on their roads in favour of creating more walking and cycling routes. Public bike hire schemes are now a common service in many large cities, eliminating the need for office workers and residents to use cars.

© *Seeing the back of the car*, The Economist Newspaper Ltd, 22 September 2012