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## TRANSFORMING THE MARKET: CLEANER VEHICLES

*Optional Road vehicles have brought great advantages, but also significant adverse impacts on the environment. One important way of reducing these impacts is to transform the market to cleaner, more fuel efficient vehicles. Giving consumers more information about the impacts associated with different vehicles is a key step in this process, but technological improvement and fiscal incentives are also important.*

### Introduction

Britain's rising wealth and prosperity since the middle of the last century has resulted in a threefold increase in household disposable income. Alongside a decrease in the real costs associated with vehicle ownership this has stimulated a ten-fold increase in car ownership. In 1950 there was just two million cars registered in the UK, with only 14% of households owning one. By 1999 there were 22.8 million with over 70% of households owning at least one car.

This increase in vehicle ownership has brought people enormous benefits, not least in greatly increasing personal freedom. However, there are downsides. The rise in traffic levels fuelled by increasing vehicle ownership (and other socio-economic factors) has led to greater congestion, which is estimated to cost the economy billions of pounds a year. Air pollution is also an issue of concern. According to a report published by the Department of Health in 1998, the deaths of up to 24,000 vulnerable people are brought forward a year as a result of the short-term impacts of air pollution. Road transport is by no means the only source of air pollution, but for the two pollutants for which it will be most difficult to meet the health-based objectives the Government has set out in the Air Quality Strategy, nitrogen dioxide (NO<sub>2</sub>) and particulates, transport is a significant contributor. In fact, nationally, road transport is responsible for around half of emissions of NO<sub>x</sub> – the precursor of NO<sub>2</sub>, and about a quarter of emissions of particulates.

Emissions of CO<sub>2</sub> from road vehicles contribute to climate change, the greatest environmental threat facing the world today. Transport has been the fastest growing contributor to climate change in recent years, and road transport is responsible for a fifth of all CO<sub>2</sub> emissions in the UK. This is in contrast to emissions of local air pollutants, where levels have fallen drastically over the past decade (by about 50%).

The Government has set out its policy on developing a more sustainable transport system in a number of documents. The most comprehensive is the 1998 Integrated Transport White Paper – *A new deal for transport – better for everyone*. Government policies concentrate both on widening choice and so encouraging people to use modes of transport other than the car for all or parts of journeys, and on reducing the environmental impacts of particular journeys.

The rest of this article concentrates on the second of these.

## Encouraging the purchase of cleaner, more fuel efficient vehicles

The environmental performance of different vehicles varies widely. A useful source of further information on this is a publication from the Cleaner Vehicles Task Force, the *Environmental impacts of road vehicles in use – Air quality, climate change and noise*. In broad terms, for local pollutants heavy duty vehicles (like buses and lorries) tend to be more polluting than light duty vehicles, older vehicles tend to be more polluting than newer ones, and diesel vehicles tend to emit higher levels of some local air pollutants than petrol vehicles. Over the past twenty years, levels of emissions of local air pollutants from road vehicles have been subject to increasingly stringent regulatory standards. It now takes 20 of the cars built today to produce the same local air pollution as just one vehicle produced in the 1970s. Improvements have also been made to fuel quality – for instance lead in petrol has been completely removed. Whilst there are different standards that have to be met for different vehicles – heavy duty vehicles, for instance, have to meet different standards to light-duty vehicles (cars and vans), all cars have to meet the same standards. This means that a large car will not necessarily produce higher levels of emissions of local air pollutants than a small car.

The situation is different for CO<sub>2</sub>. CO<sub>2</sub> emissions are directly related to fuel consumption – so the more fuel-efficient a vehicle is, the less CO<sub>2</sub> it produces. There are wide variations, even cars of similar sizes can vary by up to 45%. As there are no regulations governing emissions of this gas, the influence of the market is very important in determining what products manufacturers offer.

One very important initiative to reduce CO<sub>2</sub> emissions is the European Commission's CO<sub>2</sub> from Cars Strategy which aims to reduce the average for new cars to 120 g/km CO<sub>2</sub> from the current average of 186. A key part of the strategy to achieve this are the voluntary agreements with motor manufacturers. These should reduce average CO<sub>2</sub> emissions to 140 g/km by 2008-09.

The Government has put in place a number of measures to encourage manufacturers to produce, and consumers to buy, more fuel efficient vehicles. Probably the best known of these measures was the fuel duty escalator. Introduced by the previous Government in 1993, this brought in automatic above inflation increases in fuel duty with the aim of encouraging the production and purchase of more fuel efficient vehicles, the reduction of unnecessary journeys and the adoption of more fuel efficient driving styles. The escalator was increased from 5 to 6% in 1997 when the current Government was elected. The Chancellor announced the end of the escalator in November 1999. It is estimated that, in total, the operation of the escalator from 1996 to 1999 saved 1–1.5 million tonnes of carbon. The Chancellor announced at the March 2000 Budget the details of two reforms designed to give consumers very direct messages about the impact on the environment of their new car. From March 2001 vehicle excise duty will be graduated according to CO<sub>2</sub> emissions. From April 2002, the benefit in kind taxation levied on those who have an employer provided car that is responsible for their private use will also be based on the CO<sub>2</sub> emissions of the car.

The Government believes that fiscal incentives are key to encouraging a market transformation, and ensuring that people take account of the environmental impacts of a vehicle when they are choosing which one to buy. This appears to be starting to happen. The 2000 RAC report on motoring survey of motorists found that 82% of the motorists they surveyed were very or fairly concerned about pollution. When the motorists were asked about what factors they took into account when buying a car, 25% said they took account of the environment, and 60% said they took account of fuel efficiency.

One way of boosting the numbers of people taking account of the environment in their purchasing decisions is through environmental labelling. Since 1983 it has been a requirement for manufacturers to display information about the fuel efficiency of new cars. The Cleaner Vehicles Task Force (CVTF) is a body set up by the Government in 1998 to bring together representatives from Government, industry and other interested parties to find practical ways to reduce the environmental impact of road vehicles. It has been very interested in vehicle labelling, and set up a sub-group to consider this issue. The Task Force's final report – *The way forward – the final report of the Cleaner Vehicles Task Force* – published on 6 June, recommended that vehicles' labels giving environmental information, backed up with training for vehicle dealers and promotional material are needed. Prompted in part by the Task Force's deliberations, the Society of Motor Manufacturers and Traders has brokered a voluntary agreement between motor

manufacturers to display a label giving information about fuel efficiency, noise levels, emissions of CO<sub>2</sub> and regulatory emissions standards on all new cars in showrooms. Vehicle environmental labelling will be placed on a legislative footing from next January as a result of a European directive mandating the use of such a label on all new cars.

One of the main areas of activity for the CVTF's information and labelling sub-group was to act as the steering group for a piece of research looking at vehicle environmental rating schemes. This study has looked at the type of information that is available to consumers across the world, and at what information they find to be the most helpful. Consumer reaction to different labels, including to those that make comparisons between the fuel consumption of different vehicles ('energy labels') was tested as part of the project. The project report will not be finalised until later this summer, so the Task Force's final report was not able to take it into account. However, they have recommended that the Government consider carefully how to take forward the recommendations of the report when it is finalised.

As well as vehicle labelling, the Task Force has placed great emphasis on providing consumers with an easy to use guide to the environmental performance of the fleet as a whole to help them make their purchasing decision. For some years the Vehicle Certification Agency has published, on behalf of DETR, a guide to the fuel consumption of new cars. At the Task Force's request, this was expanded last year to include information about emissions of local pollutants and noise. It was also placed on the internet with a facility allowing interested consumers to refine their search by a number of criteria – such as finding the ten most fuel efficient cars.

Two other Task Force recommendations are worth a brief mention. The Task Force noted that there was currently no easily accessible official source of information about the environmental impacts of second hand cars, heavy goods vehicles or motorbikes, although there is a body of data published in specialist magazines. The DETR is taking forward a short piece of research looking at what information is available about the fuel efficiency of heavy goods vehicles and whether there is scope for improving and/or standardising it. The Task Force also noted that, although the majority of vehicle environmental impacts are associated with their use, the production and disposal of vehicles also consumed energy, produced pollution and soon. A recently completed project, carried out by the Centre for Automotive Industry Research for DETR looked at whether there was sufficient information about these other phases to provide consumers with more information. The researchers concluded that some such information was available, but further consideration of how best to collect and present the information was needed.

Another Task Force scheme – Motorvate – aims to encourage fleets to play a role in transforming the market. Fleets signing up to the scheme, launched by Transport Minister Lord Macdonald on 6 June, have to reduce their emissions of CO<sub>2</sub> by 12% over three years. 3% of this reduction must come from reducing mileage. Companies and organisations who join Motorvate will be advised by energy, transport and environment experts on the benefits of buying greener vehicles, achieving better environmental performance and the best techniques for achieving fuel savings. Those participating will be awarded points on a five-star rating system according to their 'green credentials'. As well as the environmental case, there is a strong business argument for participating in a scheme like Motorvate. A typical, 440 strong fleet could save up to £50,000 a year on their fuel bill by meeting the scheme's targets.

## Conclusions

Transforming the market to cleaner, more fuel-efficient vehicles is a key step in delivering a more sustainable transport system. Manufacturers are taking forward important technological improvements to deliver such vehicles, and Government is putting in place fiscal incentives to encourage people to buy more environmentally friendly cars. However, neither of these will achieve their full potential unless consumers want to buy such vehicles. Persuading consumers to take more account of environmental factors in making their purchasing decisions is therefore key in delivering a cleaner, more fuel-efficient vehicle fleet. Consumers need clear information to help them make these decisions, and vehicle labels and rating guides are useful sources of such information.

## Notes

Copies of Cleaner Vehicles Task Force reports are available from DETR Free Literature, OO Box 236, Wetherby, LS26 7NB. Tel. 0870 122 6236. Alternately, see the Task Force's website at <http://www.roads.detr.gov.uk/cvtf/index.htm>

The VCA guide to emissions from new cars is available on the Task Force's website at <http://www.roads.detr.gov.uk/vehicle/fuelcon/index.htm>

For more information on Motorvate, call the Motorvate hotline on 0808 100 9 100, or see <http://www.greenerfleet.org.uk/>

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