

HM Treasury

The reform of Vehicle Excise Duty to ensure a cleaner environment

Response from Friends of the Earth

1 Friends of the Earth

Friends of the Earth exists to campaign actively, effectively and imaginatively to protect and improve the conditions for life on earth, now and for the future.

Friends of the Earth Trust undertakes charitable status research, education and public information work programmes on environmental and related economic and social issues.

FOE believes that society must be transformed in order to prevent environmental degradation and alleviate related social misery and economic waste. We must shift the dominant paradigm of excessive consumption and ever more economic growth, which causes this degradation, misery and waste, so that the needs of people and ecological systems are met simultaneously, and not traded off against each other.

Friends of the Earth has campaigned on transport issues for almost twenty five years. Our principal concern has been the growth in road traffic. Road traffic is a major cause of air quality problems in the UK at a local and regional level. Road traffic contributes significantly to emissions of carbon dioxide, the principle cause of global warming. Traffic threatens wildlife directly through roadkill, through the transport of oil and through habitat destruction from road-building and road-based development. The manufacture of road vehicles consumes vast amounts of natural resources. Their use kills thousands of people annually and pollutes river systems. Their disposal causes further pollution - from tyre dumps to landfill.

Although measures can be taken to minimise many of these effects, it is impossible to eliminate them. Most impacts of traffic however can be reduced through reductions in the level of road traffic. Friends of the Earth is therefore campaigning for a 10% reduction in overall road traffic levels in the UK by 2010, as compared to 1990 levels. Friends of the Earth is also campaigning for the wider use of technology to reduce the impacts of traffic, particularly through changes to vehicle design.

Friends of the Earth therefore welcomed the Government's commitment to vary Vehicle Excise Duty (VED) such that "*more efficient, less polluting cars will pay less and less efficient ones will pay more*"¹. Friends of the Earth welcomed the Chancellor's announcement in the Budget Statement of March 1997 that "*from next year, VED for the cleanest and smallest cars would be cut by £50*". Friends of the Earth welcomes the opportunity to comment on the detail of the Government's proposals. **We are happy for our comments to be made available to others.**

2 The proposed system for new cars

2.1.1 Friends of the Earth believes that a reformed system of Vehicle Excise Duty **should take account of both emissions of carbon dioxide and emissions of regulated pollutants** (carbon monoxide, nitrogen oxides, hydrocarbons and particles).

2.2 Carbon dioxide

2.2.1 Carbon dioxide (CO₂) is the principal cause of global warming and the transport sector is the fastest growing source of CO₂ emissions. Friends of the Earth supports the European Union's '*CO₂ from Cars*' strategy and believes that, as the UK does not impose an acquisition tax/rebate on the purchase of new cars (and therefore cannot vary such a tax), varying VED to encourage the purchase of cars that are more fuel efficient is an important measure (in addition to the fuel duty inflator and labelling initiatives) toward the achievement of the strategy's target.

2.2.2 Friends of the Earth believes that **the CO₂ emission rate** (grammes of CO₂ per km) **should be used as one basis for VED for new cars**. We note that type approval CO₂ emission data exist for all new cars, that this data is robust and that use of the CO₂ emission rate will provide a fuel-neutral measure of environmental damage (ie: it takes account of the difference in density between petrol and diesel).

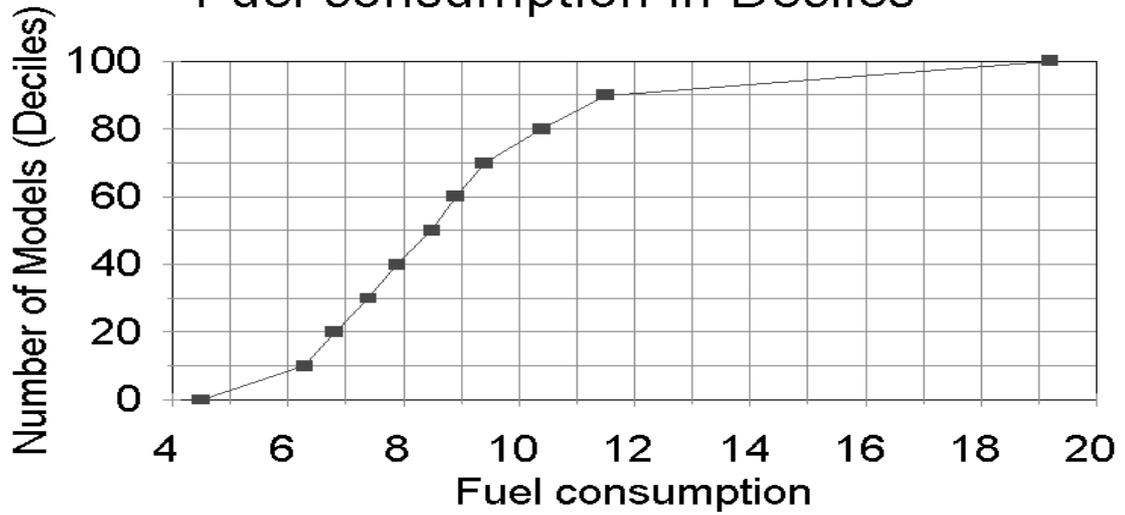
2.2.3 Friends of the Earth believes that **VED for new cars should be charged on the basis of a continuous scale**. In reaching this conclusion, we have considered the need for the system to be robust, long lasting and to give an incentive for all manufacturers to improve their fuel efficiency. We have carried out our own analysis of the fuel consumption of different models for the Information and Labelling Group of the Cleaner Vehicles Task Force. Although this does not translate directly into CO₂ emission rates, its conclusions are broadly relevant.

2.2.4 Graph 1 below shows the distribution of fuel consumption in deciles. As can be seen there are pronounced tails - especially at the higher fuel consumption end of the graph. Ninety per cent of new cars have a fuel consumption between 4.5 and 11.5 litres/100 km (and eighty per cent fall between 11.5 and 6.5 litres/100 km), whereas the fuel consumption of the remaining ten per cent varies between 11.5 and 19.2 litres/100km. Graph 2 below shows the number of models in bands of one litre/100km width. Again, it is clear that the overwhelming majority of cars falls within a narrow range of 6-12 litres/100 km while there is a small number that achieve 100 km for less than 6 litres and a small number of 'gas guzzlers' with fuel consumption of more than 12 litres/100km.

2.2.5 Friends of the Earth has considered two possible forms of banding. Firstly, models could be banded in deciles. The advantage of this is that equal numbers of models are allocated to each band.

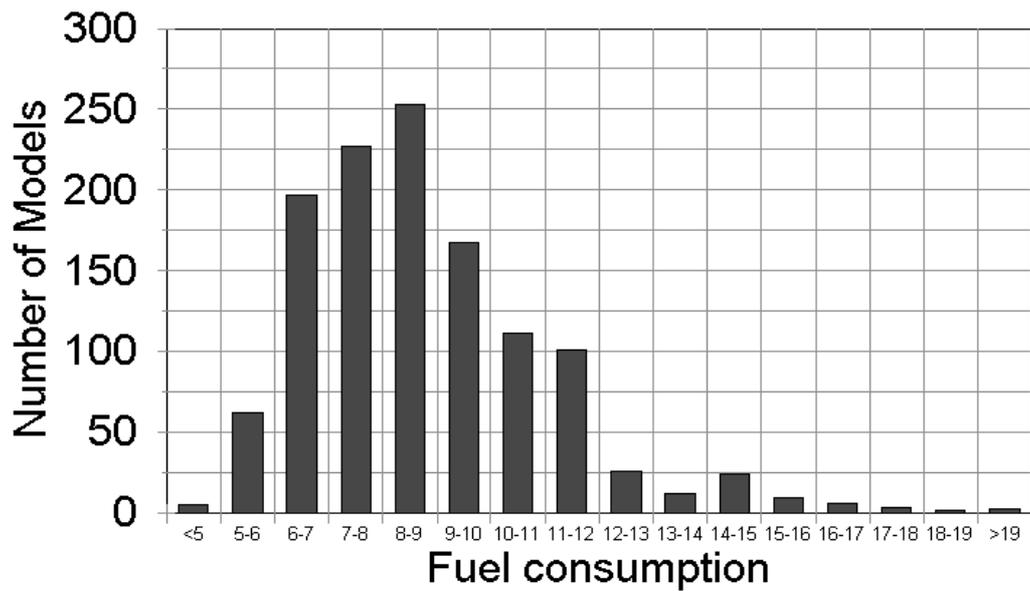
Graph 1

Fuel consumption in Deciles



Graph 2

No. of Models by fuel consumption



- 2.2.6 The disadvantages are firstly that it would divide the majority of cars into a series of narrow, seemingly arbitrarily defined bands. As type approval fuel consumption data is only an indication of the average consumption of cars of a given model, this would inevitably make the system open to charges that some efficient cars were charged more than some inefficient ones (the consumption of a given version or an individual car varies slightly from the type approved figure). Secondly it would place all the gas guzzlers in the same band, giving the worst performers little incentive to improve. Thirdly, the system would have to be revised each year - as the average fuel consumption of the new car fleet improved. This would make it difficult for purchasers to predict the VED they would pay in future years.
- 2.2.7 Secondly, models could be banded in groups simply on the basis of their consumption. This would have the advantage of giving the gas guzzlers an incentive to improve. Such a system would also not need updating from year to year. However it could seem arbitrary at the breakpoints between the bands, especially given the variation of different versions and different individual cars around the type approved figure.
- 2.2.8 **Charging cars on a continuous scale would have the advantage of giving manufacturers of all models an incentive to improve. It would not impose arbitrary breakpoints. Nor would it need updating every year.**
- 2.2.8 One further point about a banded scale of charges is worth making. The Chancellor, in his Budget speech, talked about reducing VED for the cleanest, most efficient cars. He did not talk about increasing it for the dirtiest and least efficient cars. However, it is clear from Graph 2 that in terms of fuel consumption (and presumably CO₂ emission rates), simply reducing duty on the most efficient models would scarcely change the current system. For example, cutting duty on cars achieving 100 km for less than 6 litres would only affect 67 models - less than 7% of the total range. Cutting duty on all those achieving 100 km for less than 7 litres would affect 264 models - about a quarter of the range. However, if motor industry commitments to improve the efficiency of new cars are implemented, the average fuel consumption of the new model range will overtake this standard within a few years - making the new system redundant. Neither would there be any incentive for the gas guzzlers to improve their performance.
- 2.2.9 **Friends of the Earth therefore believes that VED should be increased for the most inefficient cars and that the best way of doing this would be to charge cars on a continuous scale according to their CO₂ emissions rate.** We do not believe this need impose any serious administrative problems as the charge would be a simple product of the CO₂ emissions rate and the Government's charge scale.
- 2.2.10 We note, at this point, that many other European countries charge far higher rates of VED for larger models. Table 1 shows some examples from neighbouring countries (calculations were up to date in February 1998):

Table 1 - VED for different models in selected EU countries				
MODEL	UK	BELGIUM	GERMANY	IRELAND
Suzuki Swift	£150.00	£65.82	£40.51	£77.90
Ford Fiesta	£150.00	£86.10	£52.67	£138.02
Ford Mondeo	£150.00	£146.74	£72.92	£257.41
Ferrari F50	£150.00	£1082.62	£190.41	£677.39

2.3 Regulated pollutants

- 2.3.1 Emissions of regulated pollutants by cars (carbon monoxide, nitrogen oxides, hydrocarbons and particles) are a major cause of air quality problems. Government analyses suggest that current measures will be insufficient to ensure that air quality targets are achieved in terms of nitrogen oxides, particles or ozone. Increasing the rate at which newer cleaner cars are introduced is important in achieving these targets as quickly as possible.
- 2.3.2 The use of fiscal instruments to encourage the purchase of new cars is explicitly allowed in European Directives on emissions standards. However fuel duty levels cannot be used (save to influence the purchase of alternatively-fuelled vehicles or the balance between petrol and diesel purchases) as emission rates do not depend on fuel consumption. In theory, an acquisition rebate coupled with some form of scrappage allowance could be used to encourage turnover in the car fleet. However, this would cost the Exchequer. In practice, varying VED is the only fiscal instrument the UK could use to encourage the purchase of cleaner vehicles.
- 2.3.3 It should be noted however that type approval data for the emissions of new cars are not robust indicators of the comparative emissions of those cars. Unlike type approval data for fuel consumption (and CO₂ emissions), the procedure for calculating type approval data for regulated emissions is not designed to calculate an 'average' emission level for the model range or production run. It is merely designed to ensure that the model range complies with European emission standards. Friends of the Earth therefore accepts that it is not currently possible to use type approval data to discriminate between the emissions of different models of new car.
- 2.3.4 However, in the near future it is likely that manufacturers will begin to type approve cars to meet the Euro III standards. Soon after that, some manufacturers may type approve cars to meet Euro IV standards as well. Manufacturers have told us that the introduction of fiscal incentives to encourage the introduction of cleaner cars, coupled with the introduction of clear zones where dirtier cars were banned, would give them an incentive to type approve to the new standards, where possible, before they are introduced.

2.3.5 **Friends of the Earth believes that differential VED rates should be introduced to encourage the introduction of Type IV standard cars, in particular.** As all new cars will have to meet Type III standards by the time the new VED system is introduced, there is little point in giving them a VED incentive.

2.3.6 As emission standards vary between petrol and diesel cars, **Friends of the Earth also believes there is a case for charging different rates of VED to take account of these different levels of emission.** This could be done by charging a supplement for diesel vehicles, however the level of this may need to be varied depending on the emission standard the diesel cars meet.

3. The proposed system for existing cars

3.1 For the same reasons as we have outlined above, Friends of the Earth believes that a system of variable vehicle excise duty should also be introduced for existing cars. This system should reflect both their CO₂ emissions (in so far as this is possible) and their emissions.

3.2 CO₂ emissions

3.2.1 Friends of the Earth accepts that because the collection of type approval data for CO₂ emissions has only been a recent requirement, it is not possible to base a system of taxation for existing cars on their CO₂ emission rates. We also accept that because type approval fuel consumption data is not available for many older cars, this measure cannot be used either.

3.2.2 **Friends of the Earth believes that, as soon as is practicable, the Government should move to calculating VED in terms of first fuel consumption and then CO₂ emissions and that it should indicate its intention to do so. In the interim, we believe the Government should use engine capacity as a proxy for these more accurate measures of CO₂ emissions.**

3.2.3 We note that the collection of type approval data for the CO₂ emissions of new cars has been a requirement for over a year. **We recommend that the system being adopted for new cars also be applied to cars bought during this period (in order to avoid creating a class of separately treated cars which will remain an anomaly in the vehicle fleet for the next 12-15 years).**

3.2.4 For similar reasons to those applied above in respect of new cars, Friends of the Earth believes the system applied to existing cars should be based on a continuous scale. This would avoid the creation of arbitrary breakpoints or the need to revise the system every year. Again, since the calculation of the rate of tax would be a simple product of the engine capacity and the tax rate, it would not be too difficult to calculate.

3.3 Regulated pollutants

- 3.3.1 As with new cars, the type approval data collected for existing models is insufficiently robust to enable models to be compared with each other. It can only be used to indicate which emission standard the model meets. For the reasons outlined above, **Friends of the Earth believes that Vehicle Excise Duty should be used to encourage the purchase of second hand Euro I and Euro II cars and the disposal of cars that do not meet even the Euro I standard. As with new cars, VED rates should be used to discriminate against dirtier diesel vehicles in particular.**
- 3.3.2 However, **the use of VED in this way raises some legitimate concerns.** Firstly, the Institute for Public Policy Research (IPPR) has published evidence showing that using VED to encourage the disposal of older cars will adversely affect poorer motorists². IPPR has suggested that VED be abolished and that fuel duties be increased to compensate the Exchequer for the cost of doing so. Friends of the Earth would not support this move because, as we said above, VED is the only fiscal instrument that can be used to encourage the purchase of less polluting cars.
- 3.3.3 However, we accept that the imposition of higher rates of VED for (older) more polluting cars will cause hardship. Furthermore there will be a particular discrepancy between the rates charged to cars made in the late 1970s and early 1980s and the rates charged to cars made before 1973, which are exempt from VED. **We believe the Government should look again at the possibility of introducing a scrappage allowance for older cars in order to partially compensate the owners of these cars for the imposition of the new rates of VED.** This scrappage allowance needn't be tied to the purchase of a new car.
- 3.3.4 Furthermore, Friends of the Earth believes the Government needs to consider how the many changes being made to motoring taxation (including VED, the fuel duty inflator, reform of company car taxation and the introduction of road pricing and workplace charging) will impact on the poorer motorist, particularly in rural areas. Friends of the Earth believes that the welcome increase in funds for rural bus services is still far from sufficient and should be matched by further increases in future years.
- 3.3.5 Secondly, in the imposition of differential rates of VED for existing cars, allowance will have to be made for owners who upgraded pre-1992 cars to meet 1992 standards by installing catalytic convertors. Some form of certification will be required to enable those owners to pay a lower rate of VED to reflect their lower emissions.

4. Other Issues

4.1 Other Vehicles

- 4.1.1 Friends of the Earth is aware that the availability of type approval data for the CO₂ emissions, fuel consumption and regulated emissions of vans, light goods vehicles, motorcycles, heavy lorries, buses and alternatively fuelled vehicles varies widely according to the type of vehicle being considered. We are not in a position to advise on the introduction of differential VED systems for these types of vehicle.

- 4.1.2 However, in principle, we believe the Government should firstly support new European Directives that require, as part of type approval, the measurement and collection of CO₂ emissions, fuel consumption and emissions of regulated pollutants of all sorts of road vehicle.
- 4.1.3 Furthermore, we believe in principle that the Government should move toward varying vehicle excise duty for each class of vehicle according to the environmental damage that the vehicle causes. This would complement the introduction of variable VED for cars, the lower rate of VED charged to cleaner lorries and even the principle of varying charges for lorries according to the damage they do to roads.

5.0 Conclusion

- 5.1 Friends of the Earth welcomes the Government's proposals for the reform of Vehicle Excise Duty. Friends of the Earth believes that Duty on new cars should be charged according to their CO₂ emissions (on a continuous scale) and the emissions standard they reach. Friends of the Earth believes the Duty on existing cars should be charged according to their engine capacity (on a continuous scale) and the emission standard to which they were manufactured.
- 5.2 Friends of the Earth is concerned about the impact of the proposed changes on poorer motorists and therefore calls on the Government to consider the case for a scrappage allowance for old cars, as partial compensation. Friends of the Earth also believes the Government should further increase rural bus subsidy to increase the availability of alternatives to the car in rural areas.

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References

1. The Labour Party 1996 "*Consensus for Change*" p.17
2. Institute for Public Policy Research 1998 "*Transport Taxation and Equity*"