

The Implications of UK Implementation of the End-of-Life Vehicles Directive

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Background

The EU's End-of-Life Vehicle Directive (2000/53/EC) came into force on 21 October 2000, with a view to improving the waste management of scrapped cars (or 'end of life vehicles' – ELVs - as they are known in Eurospeak). Its main requirements are as follows:

- The use of lead, mercury, cadmium and hexavalent chromium in materials and components of vehicles is to be banned from 1 July 2003, apart from some specified uses;
- ELVs and waste parts are to be collected and transferred to permitted facilities for treatment;
- The delivery of an ELV to an authorised treatment facility is to be at no cost to the final user after 1 January 2007;
- Manufacturers, on the other hand, are to meet all, or a significant part of this cost from 1 July 2002 for vehicles put on the market after this date, and for all vehicles from 1 January 2007;
- By 1 January 2006 on average at least 85 per cent by weight of all ELVs is to be reused or recovered and 80 per cent is to be reused and recycled;
- By 1 January 2015, the equivalent figures should be at least 95 per cent and 85 per cent, respectively.

Member States had until 21 April 2002 to transpose the Directive into national law, but, in common with many others, the UK is running late and is still considering how best to implement some aspects of the legislation. It is expected that implementing legislation will now be brought in during this year.

In particular the Government has considered a range of options for how to fund the stricter dismantling and recycling requirements during the transition period from 2002 to

2007, during which time it is not required to put the majority of costs for older cars onto manufacturers. However, the money to do this will clearly need to be raised from one source or another, and this has created a dilemma.

A range of possibilities exists, and these were analysed in a Regulatory Impact Assessment (RIA)¹ last year. The main options are:

- Government takes no action, in which case car dismantlers pass on the extra costs to final owners when they take cars to be scrapped;
- Government funds the extra costs of recycling, either absorbing these in the overall tax burden, or recouping the money through higher motoring taxes;
- The motor industry is forced to pay, either directly or through an intermediate agency.

Subsequently the Minister has announced in a parliamentary written answer on 21 June that the first of these options is to be adopted – ie that no new system will be set up, and the final users of cars will by default be made to bear the extra costs. This decision, however, has important social and environmental consequences, as set out below.

Social Equity

The RIA does not consider the social equity implications of the proposed measure in any detail, confining itself to the comment that final owners ‘may’ be less well off than owners of newer cars. This is in contrast to its detailed consideration of possible costs to the motor industry (discussed below).

This is a far from adequate treatment of this issue, however. The government’s National Travel Survey confirms, as one would expect, that there is indeed a strong inverse link between wealth and age of cars owned. The following data are taken from background analysis by the authors from the National Travel Survey². These figures are a few years old now, but there is no obvious reason why this pattern will have changed significantly; indeed, with more older cars remaining in the fleet, and more of the poorer households acquiring cars as time goes on, it may have intensified.

¹ *Regulatory Impact Assessment (RIA) on Implementation Options pre-2007 for Directive 2000/53/EC of the European parliament and of the Council on End of Life Vehicles (the ‘ELV’ Directive)*, Department of Trade and Industry, London, 20 June 2002

² NTS data prepared for authors’ report: M Fergusson and I Skinner, *Transport Taxation and Equity*, Institute for Public Policy Research, London, November 1998.

Table 1: Percentage of cars by age and household income

Age of cars	Household income level (quintile)					
	Lowest	Second	Third	Fourth	Highest	All
Up to 3 years	12	16	19	25	35	25
Over 3 to 10 years	55	57	60	57	51	56
Over 10 to 13 years	21	17	14	11	8	12
Over 13 years	12	10	7	6	6	7

From these figures it can be seen that amongst motorists in the least wealthy fifth of the population, one third of all the cars are over ten years old – ie of an age at which they are likely to have to be scrapped in the coming years, and hence to incur the costs of disposal discussed below. In the wealthiest fifth, only 14 per cent of cars are of this age; and these are likely to be of a higher quality, better maintained and in generally better condition as well, and therefore less likely to need to be scrapped. From this it can be clearly concluded that the impact of the Government’s proposals will be strongly regressive, with the poorest motorists two and a half or three times more likely to have to incur the costs of disposal than the richest. It is also obviously unfair for final owners unexpectedly to have to bear this cost, as they typically drive their cars less far, and have derived less value from them, than earlier owners did.

The RIA further argues that the impacts of the various possible measures to implement the ELV Directive will be ‘broadly similar across different sectors of society’. However, if the chosen approach leads to a steep rise in the number of abandoned vehicles (see below), this will probably not be the case. Clearly the proportion of very old cars is highest in the poorest neighbourhoods, and the temptation to avoid paying the costs of disposal of an old car will probably be greatest for the least well off. Indeed, particularly when scrappage results from a sudden breakdown or MOT failure, many of the least well-off motorists may find themselves in a ‘can’t afford to fix it; can’t afford to scrap it’ dilemma. Thus it seems likely that dumped or burned out cars will become even more common in deprived areas. The potential impact of this is underlined by a recent circular from the then DTLR³, which comments that:

‘Research has indicated that the presence of abandoned vehicles on the streets encourages crime and can set a strongly detrimental (and visually harmful) tone to deprived communities.’

How Many Cars will be Abandoned each Year?

The number of cars abandoned each year is already startlingly high – local authority estimates suggest that up to 350,000 cars are dumped annually (although there are more conservative estimates as well). If this figure is correct, it represents around one in every six of the two million or so cars and light vans disposed of each year.

³ *Arson and Abandoned Motor Vehicles*, Department of Transport, Local Government and the Regions, London, 13 December 2001.

Furthermore, the number of abandoned cars is already rising steeply, because the value of scrap metal has plummeted, and the market for second hand parts has declined. In the past, scrap car dealers would typically have offered a small sum in cash to the owner of an ELV, thereby providing an incentive for final owners to dispose of their vehicles properly, or for totters to collect and deliver abandoned cars to a dismantler. Now, however, there is no cash incentive, and in some cases, firms are already charging owners up to £30 to take a car or van from them, particularly in the south. Furthermore, this adverse underlying trend is likely to continue irrespective of the new requirements of the ELV Directive, for example as the landfill tax increases, and as restrictions on landfilling scrap tyres become increasingly stringent.

This situation has already led to a substantial upsurge in the numbers of abandoned cars, and the imposition of an extra charge to implement the requirements of the ELV Directive will perhaps triple the sum payable for disposal, pushing it up towards £100 in some areas.

Clearly the Government's proposal will greatly aggravate the problem of abandoned cars, but it is almost impossible to estimate by how much. The RIA argues that an additional 147,000 vehicles will be abandoned, but Box 1 illustrates some of the uncertainties in this estimate, and suggests that the true figure may be much higher.

Box 1: Observations on the RIA's estimate of the increase in abandoned vehicles

The RIA includes calculations of the likely increase in numbers of abandoned vehicles from both the licensed and unlicensed parts of the car and van stock.

There are estimated to be up to two million vehicles in the UK for which the DVLA has no reliable data on the registered keeper, and most illegally dumped cars are from this part of the stock. For unlicensed cars, the RIA argues that the value of illegally abandoning them will add only 2.5 per cent to the financial benefits of avoiding road tax, insurance, etc, and hence that the population of unlicensed cars will rise by only this percentage. This gives rise to a calculation of only a 7,000 increase in the number of unlicensed vehicles abandoned, in comparison to the 280,000 which are currently abandoned annually. There are however a number of major flaws in this argument:

- It assumes that there is a linear, one-to-one relationship between the value of having an unlicensed car and the number of such cars on the road. In reality this relationship is unknown, and there appears to be no strong reason to adopt the value suggested here.
- It assumes that drivers are fully aware of all the costs avoided and are capable of performing the rather complex calculation set out in the RIA. In reality most motorists are in any case unaware of most of their motoring costs apart from fuel costs, and apply a rather high discount rate to costs and benefits in the past or future, so they would almost certainly perceive the extra disposal cost as a far bigger cost increase than is suggested here.
- It assumes that the driver of the unlicensed vehicle has the benefit of cheap motoring throughout the five years between 2002 and 2007. In fact the relevant period is only four and a half years to begin with, and is likely to shrink further before UK provisions are in place. Also, many will not have the car in question throughout this period. For example, many unlicensed cars will (by definition) need to be scrapped before the end of 2006, so the benefits to their owners will be less. Furthermore, an unknown (but potentially very large) number of additional motorists may be tempted to 'un-license' their cars as they near the end of their useful lives, with a view to abandoning them later.
- The calculation of the numbers is critically dependent upon the charge payable to dispose of an ELV, and the total payable may well turn out to be higher than the £60 indicated.

Each of these points suggests a significantly higher number of abandonments, and comparing the estimated increase to the current number of abandonments of unlicensed cars each year, it can easily be argued that this estimate is likely to be far too low.

For licensed vehicles, the rate of illegal abandonment is currently very low – perhaps 70,000 out of nearly two million ELVs scrapped per year. This, the RIA document rightly argues, is largely based on a *perception* that the risk of being traced and punished is high. In fact, however, the risk of being successfully prosecuted is, to quote government sources, 'negligible'; and if the rate of abandonments were to increase and this fact received the sort of press attention which was recently devoted to abandoned fridges, then public perception of the risk might change rapidly. As a consequence, many more previously law-abiding

motorists might be tempted to dump or torch their old cars.

The RIA suggests that the number of licensed cars abandoned each year might treble as a result of the scrappage cost, but this is based on a similar set of microeconomic calculations as those criticised above; and in the same way, it seems very likely that this estimate is also too low.

On this basis it can easily be argued that the real increase in abandonments may be much higher – possibly several hundred thousand, which could take the annual total to well over half a million.

How Much would the Options Cost?

Table 2 below summarises the costs estimated by the DTI for the purposes of the RIA of the ELV Directive.

Table 2. Total Estimated Costs of ELV Directive

	LOP (last owner pays)	PP (producer pays)	EP (exchequer pays)
Treatment costs			
Treatment costs for current abandons	£60 * 350,000 ELV = £21 million	£60 * 350,000 ELV = £21 million	£60 * 350,000 ELV = £21 million
Treatment costs for increased abandons	£60 * 147,000 ELV = £9 million or £60 * 350,000 ELV = £21 million		
Treatment costs for legally disposed ELV	£60 * 1,503,000 ELV = £90 million or £60 * 1,300,000 ELV = £78 million	£60 * 1,650,000 ELV = £99 million	£60 * 1,650,000 ELV = £99 million
Subtotal for treatment costs	£120 million	£120 million	£120 million
Additional costs of implementation			
Collection costs for increased abandons	£40 * 147,000 ELV = £6 million or £40 * 350,000 ELV = £14 million		
Administration costs		£24 million or £32 - £43 million	£26 - £27 million or £36 million
Total costs			
Total costs	£126 million	£144 million	£146 million

	or £134 million	or £163 million	or £156 million
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Source: RIA of ELV Directive

The Government has concluded from this that the do-nothing option (ie making last owners pay for disposal) remains the cheapest thing to do, even though it has undertaken to compensate local authorities for the additional cost of removing the extra number of cars abandoned. The RIA's calculation is in essence that this extra cost for removing dumped cars is less than that of setting up a new funding system.

In reaching this conclusion, however, it seems to have exaggerated the costs of the alternatives, and underplayed the cost of extra abandoned vehicles. For example:

- The costs of setting up a fund management system are based on directly scaling up the estimated costs per car under a similar system in the Netherlands. However, a UK system would need nearly ten times the capacity of the Dutch equivalent, yet no allowance has been made for the considerable economies of scale which could result. This is important, as all the cost estimates of all the funded options hinge on this figure.
- External costs of police, fire and environmental damage caused by dumped cars are estimated to fall 'potentially to zero' on account of local authorities' new powers to tow away cars more quickly. Clearly there will be reductions, but not to zero. Fire service costs will not fall greatly simply because abandoned cars are picked up more quickly, and could well rise if a substantial number of additional cars are abandoned and torched – a practice which has risen steadily in recent years as a result of increasing abandonments⁴. No estimate of these costs is included, however.
- Estimates of the costs of a system to reimburse dismantlers is based on the assumption that each ELV will have to be invoiced *individually* and that these invoices will be processed manually by both the manufacturer (or administering agency) and the dismantler. This is a bizarre assumption, which would see even an average sized dismantling firm sending over a thousand separate invoices to each of the major manufacturers (or agency) each year. In practice, an automated system is almost certain to be developed, and to be far cheaper to operate. Furthermore, most of the information needed will already have been collected for the purposes of a certificate of destruction, which is already required under the ELV Directive, so the incremental costs of data handling seem to be greatly exaggerated. This however is ostensibly one of the central reasons why a new reimbursement system was ruled out.

A further point is that the RIA assumes that local authorities can remove abandoned cars at an average cost of £40, which appears quite low, given that a notice must be placed on the vehicle; it must then be transported into storage, and then taken on to a dismantler

⁴ Malicious vehicle fires are increasing sharply. For example they rose from 42,200 in 1997 to 63,200 in 1999. Many of these result from joyriding, but the sharp rise has also been associated with the growing numbers of abandoned vehicles on the streets.

after a week or more; and the attendant paperwork must be completed before a vehicle can be disposed of. Furthermore, these costs might rise if the number of abandonments were to increase substantially.

In the first half of the table above the RIA argues that the overall cost of treating cars will not be affected by the implementation method chosen – ie roughly the same number of cars will need to be treated come what may, irrespective of how they get to the dismantlers; and hence that the additional administrative and other costs are the key consideration in deciding on the best system. This is true to a point, but it overlooks the important issue of who pays these costs.

Crucially, if the number of abandonments rises sharply, it will be local government, and hence ultimately the Treasury, which has to face the treatment costs as well as the disposal costs – ie potentially at least £100 per vehicle for perhaps an extra 250,000 to 350,000 ELVs. Not only would this make the chosen option the most expensive of all the possibilities, but it will be the taxpayer who ultimately foots much of the bill.

What is the Alternative?

Putting together the various arguments on costs and benefits from the above, it can be seen that there is in fact little to choose between the three options in terms of their administrative costs and overheads of a new scheme, as against the additional disposal costs of more dumped cars. However, the alternatives to the Government's preferred option (ie to pay directly from the exchequer; to raise motoring taxes, or to force industry to pay) appear to be rather unpalatable. Instead, therefore, we will have a system which is inequitable, will lead to significant increases in the number of dumped cars on the streets, and will probably ultimately impose the greatest burden on the taxpayer.

A far more equitable approach would be to increase vehicle excise duty (VED) by approximately 4 per cent across the board, or about £5 on average – or less, if the Treasury or the motor industry could be persuaded to contribute. This would pay for the entire ELV recycling scheme and obviate the need to raise scrappage charges to final users. It would also be far fairer, in that the cost would be spread across all motorists, and if the additional charge were imposed as a percentage increase, it would be moderately progressive in that wealthier motorists, who tend to drive larger cars, would pay more.

Conclusions

In summary, the main conclusions to be drawn from this analysis are as follows:

- The chosen arrangements will unfairly disadvantage the poorest motorists.
- Many more old cars will be abandoned or torched as a result – perhaps over a quarter of a million per year – and the Government appears to have underestimated these figures.

- The cost to the taxpayer of removing these additional vehicles will run into tens of millions.
- A far more equitable approach would be to increase vehicle excise duty by approximately £5 per car.