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THE CASE AGAINST FURTHER GREEN TAXES

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Foreword by Matthew Elliott



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Foreword

Green taxes have become enormously popular amongst all the main political parties in recent months. The Government has doubled Air Passenger Duty, the Conservatives have indicated that they will “rebalance” the tax system from taxing income to taxing carbon emissions, and the Liberal Democrats have proposed raising Vehicle Excise Duty for the most polluting vehicles to £2,000 a year. The forthcoming Quality of Life policy group, chaired by John Gummer and Zac Goldsmith, is also expected to put forward plans for environmental taxes later this month.

Calling for new or higher green taxes allows politicians to portray themselves as responsible defenders of the environment. Higher green taxes can also be sold as a sensible economic move towards taxing “bads”, such as CO₂ emissions or landfill waste, rather than “goods” like corporate profit or earned income.

To date, no proper cost-benefit analysis of green taxes has been carried out, probably because of the strength of feeling over the potential dangers of global warming. The TaxPayers' Alliance neither holds nor expresses an opinion on the science behind climate change – this report is not an attempt to address the scientific case for or against the idea that global warming exists, is caused by humans or will have serious effects.

This report takes at face value the conclusions of experts in the field from the Intergovernmental Panel on Climate Change to academics such as William Nordhaus, the “father of climate change economics”, and more pessimistic studies such as the report produced by Sir Nicholas Stern for the Treasury. Our approach is to compare these studies’ recommendations of the price we should be prepared to pay to combat climate change with the actual state of British climate change policy. Such a comparison is the only way of knowing whether environmental taxes address root problems or whether they merely form a new revenue-stream for HM Treasury.

Our new audit also casts doubt on the rosy picture of green taxes that has often been presented. Green taxes and charges are not always a benign alternative to more traditional forms of taxation: they can impose substantial costs on, amongst others, Northern manufacturers, the NHS and the less well-off.

This report raises serious questions about the merits of imposing new or higher environmental taxes. We hope that politicians of all parties will take our findings seriously.

Matthew Elliott

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Executive Summary

This paper presents a case against the imposition of further green taxes in the United Kingdom. For the first time it outlines the negative impact of environmental taxes on consumers, businesses and public sector organisations such as the NHS; shows how many of these taxes already exceed the level necessary to meet academic and official estimates of the social cost of carbon emissions; and reveals that others may be ineffective or even be counter-productive.

The key overall finding is startling in its implications. Taking an average of the most widely quoted official and academic estimates of the social cost of CO₂ emissions shows that green taxes in the UK are already well in excess of the level they need to be to meet these social costs:

- Taking an average of official and academic estimates of the social costs of CO₂ emissions, the social cost of Britain's entire output of CO₂ was £11.7 billion in 2005 (the latest year for which full data is available).
- In 2005-06, the total burden of green taxes and charges – Fuel Duty and Vehicle Excise Duty (net of road spending), Climate Change Levy, Landfill Tax and the net cost of the EU Emissions Trading Scheme – was £21.9 billion. (This figure excludes Air Passenger Duty as emissions from international aviation are not included in national CO₂ emissions totals.)
- This means that green taxes and charges are already £10.2 billion in excess of the level they need to be to meet the social cost of Britain's CO₂ emissions. This excess is equivalent to over £400 for each household in Britain. Green taxes are therefore already too high if they really are a means of internalising environmental externalities rather than simply revenue-raising measures.

This paper investigates each of the green taxes and charges in turn and reveals that each one has serious flaws. Because there has been so little debate on the efficacy of green taxes until now, any new green taxes are likely to have similar problems.

Fuel Duty and Vehicle Excise Duty

- Fuel Duty, currently over 50p per litre of regular unleaded petrol, and Vehicle Excise Duty raise almost £20 billion above the amount spent on roads. This is between 3.6 and 40.9 times higher than the level needed to ensure that drivers cover the official and academic estimates of the social cost of CO₂ emissions, costing each motorist an average of between £548 and £743 each year.
- Ignoring road spending, Fuel Duty alone raises more than five times the Intergovernmental Panel on Climate Change's estimate of the social cost of Britain's entire annual output of CO₂ emissions.

- Further increases in taxation on motorists are not justified on environmental grounds; indeed, Fuel Duty and Vehicle Excise Duty should actually be significantly reduced.
- Given that middle class and poorer households spend proportionately more on motor oils (including petrol) than richer households, reducing Fuel Duty would be a progressive move.

Climate Change Levy

- Under the Climate Change Levy, which taxes the use of energy in industry, commerce and the public sector, the North East, England's poorest region, pays over 35 per cent more as a proportion of regional Gross Value Added than the South East, England's richest region outside London.
- The Climate Change Levy is contributing to the continuing decline in manufacturing, with 1 million manufacturing jobs lost since the levy was introduced.

Air Passenger Duty

- The doubling of Air Passenger Duty announced in last year's Pre-Budget Report, from £5 to £10 for an economy short-haul flight and from £20 to £40 for an economy long-haul flight, is actually likely to have increased total emissions from air travel, incentivising longer flights within the short-haul and long-haul bands.
- We also estimate that the levy costs the tourist industry £156 million a year.

"Bin taxes" and the Landfill Tax

- Planned local authority taxes on rubbish collection, supported by central government and the EU Landfill Directive, could cost up to £1,000 a year per household.
- Comparison with the introduction of parking charges in the 1990s shows that "bin taxes" will not be a substitute for a portion of council tax, but will represent yet another supplementary charge on stretched household finances.
- Landfill Tax, which has been increased a number of times by the current government, is already raising up to £620 million more than would be sufficient to meet the social costs of methane emissions from landfill.

Emissions trading

- One of the main effects of emissions trading schemes will be to transfer emissions from firms operating within the scheme to firms in other countries. To the extent that the overseas firms are less energy-efficient



(emitting a greater quantity of emissions for each unit of output), the net effect of emissions trading schemes may actually be to increase global emissions.

- The EU's Emissions Trading Scheme has resulted in an annual £470 million subsidy from the UK to the majority of EU countries that have not placed strict targets for overall reductions in emissions.
- The Emissions Trading Scheme has allowed a number of oil companies to make multi-million-pound profits while at the same time costing the NHS nearly £6 million.
- Measures which increase the price of domestic electricity are highly regressive, given that poorer households pay a far greater proportion of their income on electricity than richer households.

In many cases, green taxes are failing to meet their objectives, are set at a level in excess of that needed to meet the social cost of Britain's CO₂ emissions, and are causing serious harm to areas of the country and industries least able to cope. Green taxes should not be seen as a benign alternative to taxation of income and profits. Plans for new green taxes need a serious re-think.

1. The big picture

Before we analyse individual green taxes and charges currently used to cut the emissions of greenhouse gases in the UK, one question needs answering. When all greenhouse gas emissions from the UK are compared to the total burden of green taxes and charges, how do they compare?

The rationale behind green taxes is that the untaxed prices of fossil fuels do not capture the “social cost” of CO₂ (and other) emissions, and therefore green taxes need to fill the gap. The correct policy under this logic is to set green taxes at the social cost of CO₂.

Box 1.1: Why is the “social cost” important?

The social cost of CO₂ emissions represents the value of the harm done to the rest of the world, now and in the future, by emitting one tonne of CO₂. Green taxes can reduce the quantity of CO₂ emitted in an economy by making activities that result in emissions more expensive. If a green tax is set at the true social cost then the socially optimum amount of carbon will be emitted, i.e. emissions will be cut until the costs of emitting less are equal to the environmental benefits.

In this way, the social cost can be used as a guide for an appropriate level of tax to correct for the negative externalities that CO₂ emissions entail. The Intergovernmental Panel on Climate Change states that “if taxes were used, then they should be set equal to the SCC [social cost of carbon]”.¹

A number of academic and official estimates of the social cost of CO₂ emissions exist. The most widely-quoted estimates are summarised below:



Nordhaus (2007). William D Nordhaus is Stirling Professor of Economics at Yale University and a member of the National Academy of Sciences. He was a member of the Council of Economic Advisers to the Carter administration in the late 1970s. The *Economist* has described him as the “father of climate-change economics”.² His 2007 study is based upon a model which has been refined over more than 30 years.



Intergovernmental Panel on Climate Change (IPCC) (2007). The United Nations body established in 1988 that is generally described as the “scientific consensus” on climate change. Its estimate of the social cost of CO₂ is an average (mean) of over 100 peer-reviewed studies.

¹ Parry M.L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., 2007, *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, UK.

² Economist, “How to value a grandchild”, December 2006



Tol (2005). Richard Tol is Senior Research Officer at the Economic and Social Research Institute in Dublin, Principle Researcher at the Institute for Environmental Studies in Amsterdam and Adjunct Professor at the Department of Engineering and Public Policy of the Carnegie Mellon University in Pittsburg. He is an author (contributing, lead, principle and convening) of Working Groups I, II and III of the Intergovernmental Panel on Climate Change. His estimate of the social cost of CO₂ is an average (mean) of 103 estimates from 28 published studies.



Stern (2006). Sir Nicholas Stern was Chief Economist and Senior Vice President of the World Bank between 2000 and 2003. Between 2003 and 2005 he was Second Permanent Secretary at HM Treasury with responsibility for public finances and the Government Economic Service. He was commissioned by HM Treasury in July 2005 to review the economics of climate change.

Table 1.1: Estimates of the social cost of one tonne of CO₂ emissions³

Organisation/ person	Social cost of carbon, per tonne, \$	Social cost of CO ₂ , per tonne, \$	Social cost of CO ₂ , per tonne, £
Nordhaus (2007)	N/A	\$7.40	£4.07
IPCC (2007)	N/A	\$12.00	£6.59
Tol (2005)	\$93.00	\$25.38	£13.94
Stern (2006)	N/A	\$85.00	£46.70

Given the amount of CO₂-equivalent greenhouse gas produced by the UK in 2005, a range of estimates of the total social cost of greenhouse gas emissions can be generated based on estimates of the social cost of carbon shown in Table 1.1. Figures for 2005 are used as this is the latest year for which full energy use data is available. These estimates range from £2.7 billion to £30.5 billion (*NB: Figures throughout the report are generally rounded to the nearest £0.1 billion.*)

³ Nordhaus, W. "The Challenge of Global Warming: Economic Models and Environmental Policy", July 2007, http://nordhaus.econ.yale.edu/dice_mss_072407_all.pdf; Intergovernmental Panel on Climate Change, "Climate Change 2007: Impacts, Adaptation and Vulnerability", April 2007, <http://www.ipcc.ch/SPM13apr07.pdf> on 05/06/2007; Tol, R. S. J. "The marginal damage costs of carbon dioxide emissions: an assessment of the uncertainties", Energy Policy, Volume 33, Issue 16, November 2005; Stern, N. et. al. "Stern Review: The Economics of Climate Change", HM Treasury, 2006. The estimates given in the reports are expressed in USD, and have been converted to GBP using the 2005 (same year as the latest year for which full emissions data is available) conversion rate of USD 1.82 = GBP 1 (Lawrence H. Officer, "Exchange rate between the United States dollar and the British pound, 1791-2005" Economic History Services, EH.Net, 2006 <http://eh.net/hmit/exchangerates/pound.php>). The Tol estimate uses the social cost per tonne of carbon, which has been converted to the social cost per tonne of CO₂ by a ratio of 100:27.29 (1 tonne of CO₂ contains 0.2729 tonnes of carbon – see IPCC report, op. cit.).

Table 1.2: Estimates of the social cost of UK greenhouse gas emissions⁴

Organisation / person	CO ₂ equivalent emissions from UK, 2005, millions of tonnes	Social cost of CO ₂ , per tonne, £	Social cost of total UK greenhouse gas emissions, 2005, £ billion
Nordhaus	654 million	£4.07	£2.7 billion
IPCC	654 million	£6.59	£4.3 billion
Tol	654 million	£13.94	£9.1 billion
Stern	654 million	£46.70	£30.5 billion
Average		£17.83	£11.7 billion

These social cost estimates can be compared with the net burden of green taxes and charges of £21.9 billion in the corresponding year (2005-06):

- This is net of road spending of £8.4 billion in 2005-06.⁵ Public spending on roads can be seen as a subsidy to road transport, which should therefore be set against Fuel Duty and Vehicle Excise Duty.
- Air Passenger Duty has been left out as international aviation is not included in national greenhouse gas emissions totals. Emissions from domestic aviation are, however, included in national CO₂ emissions totals – our estimates, by not including Air Passenger Duty at all, are therefore on the conservative side.

Table 1.3: The net burden of green taxes and charges in 2005-06⁶

Green tax/charge	Revenue, 2005-06, £ billion
Fuel Duty	£23.4 billion
Vehicle Excise Duty	£5.0 billion
Landfill Tax	£0.7 billion
Climate Change Levy	£0.7 billion
EU Emissions Trading Scheme net contribution	£0.5 billion
Sub-total	£30.3 billion
<i>Less spending on roads</i>	<i>£8.4 billion</i>
Total	£21.9 billion

⁴ DEFRA, "e-Digest Statistics about: Climate Change – UK Emissions of Greenhouse Gases", January 2007, <http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

⁵ HM Treasury, *Public Expenditure Statistical Analyses 2007*, April 2007, Table 5.2. Roads spending is the sum of "national roads"; "local roads"; "other road transport".

⁶ HM Treasury, "Budget 2007", March 2007 and Open Europe, "The high price of hot air: Why the EU Emissions Trading Scheme is an environmental and economic failure", July 2006

Table 1.4: Social cost of UK greenhouse gas emissions compared with the net burden of green taxes and charges

Organisation/ person	Social cost of total UK greenhouse gas emissions, 2005, £ billion	Net burden of green taxes and charges, 2005-06, £ billion	Green taxes and charges in excess of social cost of greenhouse gas emissions from UK, 2005, £ billion
Nordhaus	£2.7 billion	£21.9 billion	£19.1 billion
IPCC	£4.3 billion	£21.9 billion	£17.5 billion
Tol	£9.1 billion	£21.9 billion	£12.7 billion
Stern	£30.5 billion	£21.9 billion	-£8.7 billion
Average	£11.7 billion		£10.2 billion

Table 1.5: Discrepancy between social cost of emissions and green taxes per household

Organisation/ person	Green taxes and charges in excess of social cost of greenhouse gas emissions from UK, 2005, £ billion	Number of households, million ⁷	Excess green taxes per household, 2005, £
Nordhaus	£19.1 billion	25.29 million	£757.64
IPCC	£17.5 billion	25.29 million	£692.46
Tol	£12.7 billion	25.29 million	£502.35
Stern	-£8.7 billion	25.29 million	-£344.99
Average	£10.2 billion		£401.87

This comparison shows that only under Stern's particularly high social cost estimate are green taxes and charges not already sufficient to account for total UK greenhouse gas emissions. In fact, the average difference is so large that reducing green taxes and charges to the amount needed to internalise the social cost of emissions actually requires a tax reduction of nearly £10.2 billion or over £400 per UK household.

Box 1.2 on p.11 gives details of the negative effects of setting green taxes above the social cost of carbon.

Box 1.3 on p.12 shows why the estimate of the social cost of carbon emissions given by Stern should be seen as less credible than the other, lower, estimates, such as that from the Intergovernmental Panel on Climate Change. By including Stern's social cost figures, our report produces a cautious estimate of how far green taxes are already in excess of the level needed to cover Britain's CO₂ emissions.

⁷ Source: Office of the Deputy Prime Minister; National Assembly for Wales and Scottish Executive

Box 1.2: Negative effects of setting green taxes above the social cost of carbon

Unfairness

- All of the products subject to “green taxes” also pay VAT. Often, as with fuel duty, VAT will actually be charged on the post-“green tax” price which magnifies the green tax’s effect and results in an effective double taxation. Companies that pay green taxes like the Climate Change Levy or pay for credits under the EU Emissions Trading Scheme also pay other corporate taxes. They have paid their way.
- While it is possible to justify singling out consumers of carbon-emitting products and carbon-emitting companies in order to offset the social cost of carbon, taxing them radically more, as is the case for motorists with Fuel Duty for example, is unjust.
- This unfairness is compounded by the fact that these taxes are often regressive. They either hit the poorest regions disproportionately, as with the Climate Change Levy, or poorer people, as with Fuel Duty.

Economic Distortion

- By putting disproportionate taxes on particular industries *excess* green taxes (i.e. green taxes set above the social cost of carbon) distort the economy. Successful industries and technologies will increasingly be the ones that manage to avoid the excess green taxes rather than those that make economic sense.
- One example of such a distortion, discussed in more detail in Chapter 3, is a shift in taxation which will particularly hurt manufacturing firms. This will exacerbate existing trends and cause all the serious social problems that are associated with industries and regions in decline.

Competitiveness

- Many other countries have imposed no green taxes at all and most others have not imposed green taxes at rates as high as Britain's. The difference can be seen most clearly with the EU Emissions Trading Scheme where other countries set much lower targets and, hence, placed far less of a burden upon their industries.
- The difference in the burden of green taxation between Britain and other countries will result in British firms finding it harder to compete with other firms abroad. Green taxes may even make them unable to compete with foreign firms that put out greater quantities of greenhouse gases. This would lead to increased global emissions.

Efficiency

- Many green taxes are highly inefficient. They cause relatively large social and economic harms for a given amount of income raised. One example is Air Passenger Duty which discourages foreign tourists from visiting Britain. Another example is the EU Emissions Trading Scheme which creates huge administrative costs. Both of these examples are discussed in the relevant chapters of this report.

Box 1.3: Stern versus the IPCC

Our report uses a linear average of four studies which assess the social cost of carbon: Nordhaus (2007), the Intergovernmental Panel on Climate Change (2007), Tol (2005) and Stern (2006). This average accounts for a range of views between the estimates of Nordhaus, "father of climate change economics", the IPCC, the body usually cited as the "scientific consensus" view of climate change, and Stern's outlier estimate.

However, by treating the extremely high estimate of social cost arrived at in the Stern report as equally credible to the IPCC and other estimates we are probably giving a distinctly cautious estimate of the extent to which green taxes in Britain are excessive. Another approach would be to use the IPCC estimate of the social cost of CO₂ emissions. This would mean significantly larger estimates of how excessive British green taxes are, as can be seen from the tables throughout this report.

The IPCC

- The United Nations body usually cited as the "scientific consensus" on climate change. Most of the criticism it has received has been from sceptics of anthropogenic global warming, who would certainly not believe that its estimate of social cost is too low.
- Estimate of the social cost of carbon based upon an average of over 100 peer-reviewed academic estimates of social cost.

Stern

- A temporary British government team established by the Treasury in July 2005. Its final report has received criticism from "eminent" climate-change economist Richard Tol and the "father of climate-change economics" William Nordhaus (descriptions from the *Economist*⁸):
- Nordhaus:⁹
 - Pointed out that the study's conclusions rely entirely upon a controversial ethical assumption, that utility should be treated as equally valuable across generations.
 - This assumption appears not to be shared by ordinary people who discount utility over time when, for example, planning what to leave to their children.
 - A majority of the harms described in Stern occur after 2800. Under the same logic of taking costly action to prevent uncertain harms far into the future extreme positions could be justified in, for example, foreign policy.
- Tol (frequently cited within the Stern report):¹⁰
 - Called the study "alarmist and incompetent".
 - Described how the study takes no account of the potential of adaptation to minimise the harms of climate change.
 - Accused the report of "cherry-picking", always taking the most pessimistic estimates of potential damage from the reports it studied.
 - Noted that Stern's social cost estimate is an outlier in the marginal damage cost literature and little explanation is given to justify such an extreme estimate.

⁸ Economist, "How to value a grandchild", December 2006

⁹ Nordhaus, W. "The Stern Review on the Economics of Climate Change", May 2007

¹⁰ Tol, R. S. J. "The Stern Review of the Economics of Climate Change: A Comment", November 2006, <http://www.fnu.zmaw.de/fileadmin/fnu-files/reports/sternreview.pdf>

2. Fuel Duty and Vehicle Excise Duty

Fuel duty is the largest indirect tax after VAT and raises £23.6 billion a year, £901 per motorist in the United Kingdom.¹¹ Vehicle Excise Duty raises a further £5.1 billion, bringing the total revenue raised from motoring taxes to £28.7 billion, £1,095 per motorist.¹²

Table 2.1: Revenue raised from motoring taxes¹³

Year	Fuel Duty revenue, £ billion	Vehicle Excise Duty revenue, £ billion	Total, £ billion
2005-06	£23.4 billion	£5.0 billion	£28.4 billion
2006-07	£23.6 billion	£5.1 billion	£28.7 billion

Part of the revenue raised by Fuel Duty and Vehicle Excise Duty is spent on road building and maintenance, which can be seen as a subsidy to road transport. Motoring taxes, however, are far in excess of spending on roads; the difference amounts to around £755 per motorist.

Table 2.2: Revenue raised from motoring taxes, net of road spending¹⁴

Year	Total revenue from motoring taxes, £ billion	Total road spending, £ billion	Net motoring taxes, £ billion
2005-06	£28.4 billion	£8.4 billion	£20.0 billion
2006-07	£28.7 billion	£8.9 billion	£19.8 billion

Earlier assessments of whether motoring taxes are set at the appropriate level have compared them to a range of different externalities from noise to air pollution and congestion:¹⁵

- Noise and air pollution are created by a vast spectrum of industrial activity. They are controlled by regulation which limits acceptable levels of noise and particle emissions in different geographical areas. If Fuel Duty is intended to correct for these localised externalities then two questions need to be asked. Why is road transport taxed for localised externalities while other industries are not? And, if these externalities are being corrected for by motoring taxes, why are they also regulated?
- By far the largest externality identified in the earlier study is congestion. There are problems with using Fuel Duty or Vehicle Excise Duty to correct for congestion. First, the taxes do not alter by the time of day or the location of the road. Second, the costs of congestion are internalised

¹¹ WhatCar? "Number of cars on UK roads increases", March 2006

¹² Ibid.

¹³ HM Treasury, *Budget 2007*, Table C8: Current receipts, March 2007.

¹⁴ HM Treasury, *Public Expenditure Statistical Analyses 2007*, April 2007

¹⁵ Leicester, A. "The UK Tax System and the Environment", Institute for Fiscal Studies, November 2006. <http://www.ifs.org.uk/comms/r68.pdf>

within the body of road users and create an incentive to use other methods of travel, as such they are not a pure externality.

The only externality that Fuel Duty and Vehicle Excise Duty can effectively correct for is CO₂ emissions by raising the cost of road fuels and of owning a car.

The social costs of CO₂ emissions given in Table 1.1 can be compared with CO₂ emissions from road transport and revenue raised from Fuel Duty and Vehicle Excise Duty, net of road spending.

Given the number of tonnes of CO₂ emissions currently produced by UK road transport, a range of estimates of the total social cost of UK road transport CO₂ emissions can be generated. These estimates range from £488 million to £5.6 billion.

Table 2.3: Estimates of the social cost of CO₂ from UK road transport¹⁶

Organisation/ person	Social cost of CO ₂ , per tonne, £	CO ₂ emissions from UK road transport, 2005, millions of tonnes	Social cost of CO ₂ emissions from UK road transport, 2005, £ billion
Nordhaus	£4.07	119.9 million	£0.5 billion
IPCC	£6.59	119.9 million	£0.8 billion
Tol	£13.94	119.9 million	£1.7 billion
Stern	£46.70	119.9 million	£5.6 billion

This range of social cost estimates can then be compared with the £20 billion raised from Fuel Duty and Vehicle Excise Duty, net of road spending, in the corresponding year.

Table 2.4: Social cost of UK road transport compared with Fuel Duty revenue

Organisation/ person	Social cost of CO ₂ emissions from UK road transport, 2005, £ billion	Net motoring taxes, 2005-06, £ billion	Net motoring taxes/ Social cost of CO ₂ emissions from UK road transport, 2005
Nordhaus	£0.5 billion	£20.0 billion	40.9
IPCC	£0.8 billion	£20.0 billion	25.2
Tol	£1.7 billion	£20.0 billion	11.9
Stern	£5.6 billion	£20.0 billion	3.6

Such a comparison shows that net motoring taxes are between 3.6 and 40.9 times the level needed to correct for the negative externality of CO₂ emissions, meaning that the average motorist is paying between £548 and £743 each year in excess motoring taxes. Therefore, the current level of tax

¹⁶ DEFRA, "e-Digest Statistics about: Climate Change – UK Emissions of Greenhouse Gases", January 2007, <http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

on road transport does not have an environmental justification and further rises would simply be a revenue-raising measure. Indeed, the estimates presented above suggest that Fuel Duty and Vehicle Excise Duty rates should actually be significantly reduced.

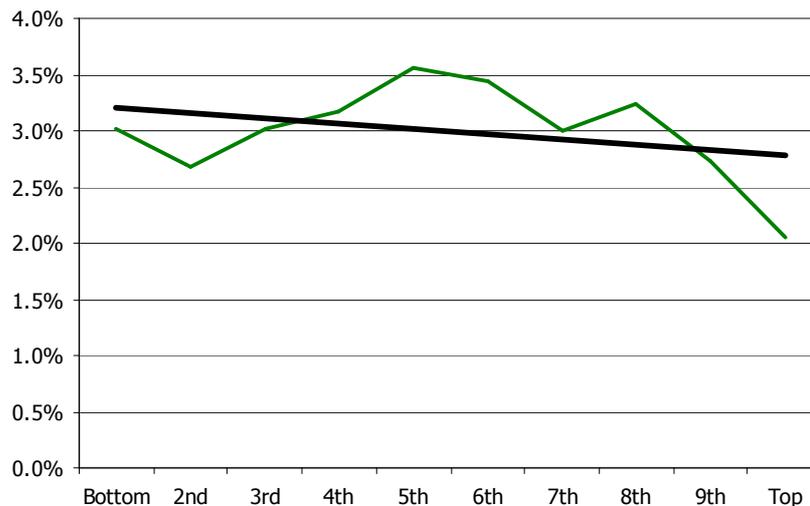
Table 2.5: Excess Fuel Duty paid per motorist¹⁷

Organisation/ person	Net motoring taxes in excess of social cost of UK road transport CO ₂ emissions, 2005, £ billion	Number of cars on the road, million	Excess motoring taxes paid per motorist, 2005
Nordhaus	£19.5 billion	26.2 million	£742.71
IPCC	£19.2 billion	26.2 million	£731.17
Tol	£18.3 billion	26.2 million	£697.54
Stern	£14.4 billion	26.2 million	£547.68
Average	£17.8 billion		£679.78

As Fuel Duty and Vehicle Excise Duty raise so much more than can be justified on environmental grounds they should not be understood as green taxes. They are just two more regressive taxes that take money, disproportionately from poorer people in Britain,¹⁸ to go into the pot of general taxation. Reducing these taxes would be a progressive move.

As Chart 2.1 below shows, middle class and poorer households spend more of their gross income on motor oils (including petrol) than richer households, meaning that they face a relatively higher Fuel Duty burden.

Chart 2.1: Spending on motor oils as a percentage of gross weekly income by household income decile, 2005-06¹⁹



¹⁷ WhatCar? "Number of cars on UK roads increases", March 2006

¹⁸ Tindale, S. "Can the left learn to love the car?" *Prospect Magazine*, Issue 57, November 2000.

¹⁹ Office for National Statistics, *The Effects of Taxes and Benefits on Household Income 2005-06*, Table 24, Appendix 1; Office for National Statistics, *Family Spending 2005-06*, Table A8

3. Climate Change Levy

On 1 April 2001 the government introduced the Climate Change Levy. Under the levy the use of energy in industry, commerce and the public sector is taxed. The rates vary depending upon the fuel being used. For very energy-intensive sectors of the economy Climate Change Agreements can be negotiated which include a discount on the Climate Change Levy.

The Climate Change Levy raised £772 million in 2004 (the latest year for which regional energy use figures are available). This charge was not supposed to represent a net cost to business as it was compensated with a cut in employer National Insurance Contributions. It can therefore be said to represent a prototype for the revenue-neutral shift towards green taxation that is being promoted across the political spectrum. But analysing the effect of the Climate Change Levy on the various regions in England presents a rather different picture.

The amounts raised by the Climate Change Levy in different regions are not published. It is possible, however, to estimate the regional breakdown using official numbers for commercial and industrial energy usage by region. Total levies for each region are then estimated by multiplying the amount of energy from a given source by that source's Climate Change Levy rate. That total is then divided by regional Gross Value Added (GVA), to give a raw amount for the regional Climate Change Levy without Climate Change Agreements.²⁰

The totals are then adjusted for Climate Change Agreements using the raw Climate Change Levy/GVA estimate as a measure of the region's energy intensity. This regional energy intensity is used as a proxy for the number and size of Climate Change Agreements. Each region's levy estimate is reduced, in line with its energy intensity, until the total cost is the same as in the HMRC figures.²¹

²⁰ NB: Liquefied Petroleum Gas (LPG) is not included in this survey as regional data on its commercial and industrial use is not available. This is not ideal but it is highly unlikely that the inclusion of LPG would make a significant difference to the results.

²¹ DEFRA, Climate change agreements: The Climate Change Levy, <http://www.defra.gov.uk/environment/climatechange/uk/business/ccl/intro.htm>; Department for Business, Enterprise and Regulatory Reform, *Regional Energy Consumption Statistics 2004*, <http://www.dti.gov.uk/energy/statistics/regional/>; HMRC, Table T1.2a, http://www.hmrc.gov.uk/stats/tax_receipts/1_2a_dec05.pdf (2004-05 CCL revenue used).

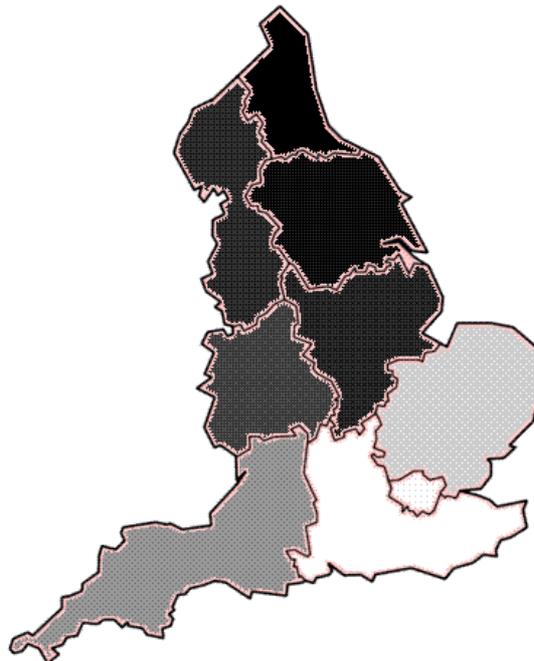
Table 3.1: Regions with Climate Change Levy as a percentage of GVA

	Region	Total Climate Change Levy payments, 2004, £ million	Climate Change Levy as a % of regional GVA
1	North East	£32.4 million	0.094%
2	Yorkshire	£69.9 million	0.093%
3	East Midlands	£61.5 million	0.091%
4	North West	£92.2 million	0.090%
5	West Midlands	£71.6 million	0.088%
6	South West	£64.9 million	0.080%
7	East of England	£74.6 million	0.074%
8	Greater London	£120.7 million	0.070%
9	South East	£111.5 million	0.069%

The final results show that this tax produces very real losers. Our estimates suggest that in 2004 under the Climate Change Levy the North East paid over 35 per cent more, as a proportion of regional GVA, than the South East.

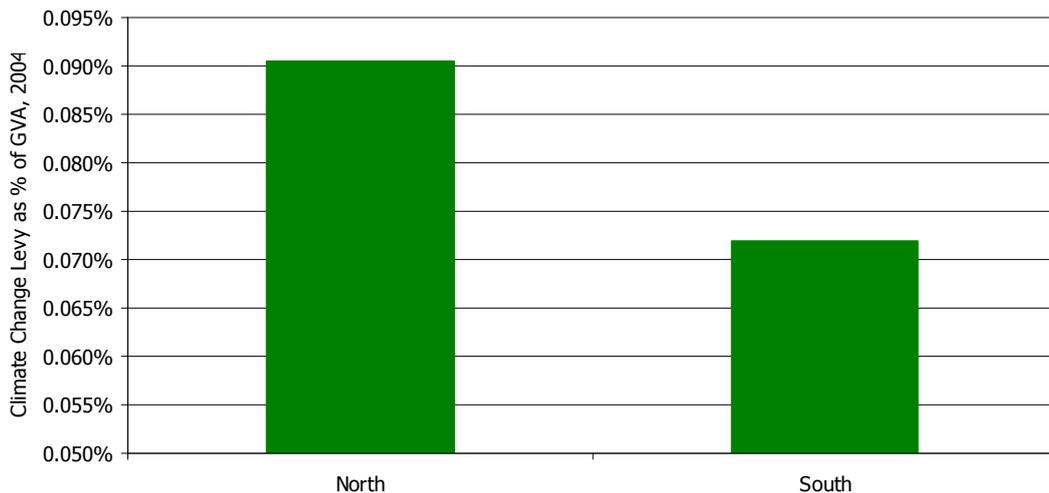
The map below shows our estimate of the Climate Change Levy as a proportion of Gross Value Added for the different regions in England. Each region is shaded with its brightness proportional to the share of GVA it pays under the Climate Change Levy. Darker areas pay more:

Chart 3.1: Regional breakdown of charges under the Climate Change Levy, 2004



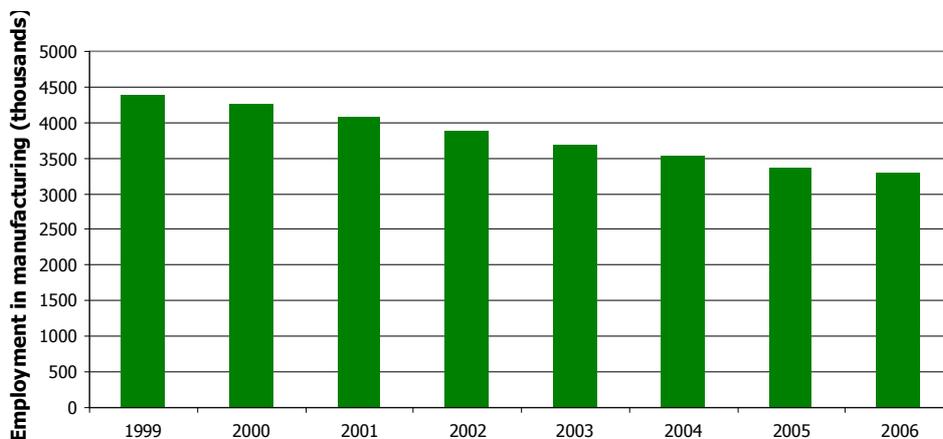
There is also a clear North-South divide, with the North and Midlands paying 0.091 per cent of GVA and the South paying 0.072 per cent. The scale on Chart 2.2 may seem small but as it is a percentage of total regional income it represents millions of pounds. This percentage will only increase with any further revenue shift towards green taxation.

Chart 3.2: The North-South Divide under the Climate Change Levy



The Climate Change Levy has therefore hit businesses in the North hardest. The compensating reduction in employer National Insurance Contributions is spread evenly across all business so will not fully compensate Northern firms. Many of them compete with foreign companies in countries such as India and China that don't face the levy so they cannot pass on the costs to retailers.

Chart 3.3: Manufacturing Employment since the announcement of the Climate Change Levy²²



²² Office for National Statistics, Workforce jobs by industry (LOLO) time series, <http://www.statistics.gov.uk/StatBase/tsdataset.asp?vlnk=495&More=N&All=Y>



The Climate Change Levy has contributed to the continuing decline in manufacturing employment. Since the Climate Change Levy was announced manufacturing employment has declined by over one million jobs, from 4.4 million to 3.3 million.

One of the main effects of the levy will therefore be to transfer greenhouse emissions from firms operating in the UK to those operating overseas. To the extent that the overseas firms are less energy-efficient (emitting a greater quantity of emissions for each unit of output), the net effect of the Climate Change Levy may actually be to increase global emissions.

The Climate Change Levy is seen as a benign, revenue-neutral way of reducing CO₂ emissions, and therefore as a prototype for future green taxes. In reality, it is a highly regressive tax on already struggling manufacturing industries in the North of England.

Box 3.1 on pp.20-21 shows how the Climate Change Levy and other green taxes and charges can result in production shifting to other countries that may be less energy-efficient, which could lead to rises in global emissions.

Box 3.1: The dangers of exporting emissions

There are three possible ways that UK emissions can be reduced by green taxes:

1. British firms produce the same with greater energy efficiency.
 2. Less is produced overall.
 3. Goods previously produced in Britain are instead produced abroad.
- The best result would be for British firms to produce the same with greater energy efficiency as it does not involve accepting economic damage:
 - Unfortunately, opportunities for firms faced by green taxes to make big efficiency gains are likely to be limited. Firms in competitive industries (many competing with firms in developing countries that have far lower labour costs) and facing high energy prices already have a big incentive to save money by using energy efficiently. This is particularly true in an economy like Britain's which is relatively open to international competition.
 - A common method for assessing the plausible scope of efficiency savings is to look at international standards. Emissions intensity is one way of assessing how efficient, in terms of emissions, an economy is. By that measure British industry is already relatively efficient (see Table 3.2 below). Part of this will be due to Britain's economy focussing more than others on service industries but it also suggests that many affordable efficiency savings have already been made in Britain.
 - Industries that are not internationally competitive, for example road haulage, are likely to produce less overall as a result of environmental taxes. If green taxes make buying a product from British firms more expensive and there are no cost-effective alternatives consumers may simply consume less of it. This is the result that leads to the biggest emissions saving but is a direct cost to people's consumption.
 - If goods previously produced in Britain are instead produced abroad, it poses a challenge to any green tax policies not formed at a global level:
 - In many industries British firms compete with others abroad. While British firms have advantages such as easy access to the British and European market they also have disadvantages such as high labour costs. It is entirely possible that green taxes on firms, whether directly or indirectly (fuel duty increases the costs of firms that need to move goods about the country, for example) will tip the balance in many competitive industries and move economic activity abroad.
 - This will not only reduce prosperity in Britain but will also lead to an increase in total emissions if the foreign firm that benefits is less energy-efficient. If green taxes move British economic activity to China, which has no green taxes, global emissions from that activity may more than double as China's emissions intensity is more than twice Britain's. Emissions will also be further increased by the need to transport goods further if production is for the British or European market.

Table 3.2 – Emissions intensity by country for the 25 largest emitters²³

Country	Emissions intensity: tonnes of CO ₂ eq. / \$m GDP (PPP)
Ukraine	2,369
Russia	1,817
Iran	1,353
Saudi Arabia	1,309
Pakistan	1,074
China	1,023
South Africa	1,006
Poland	991
Australia	977
Turkey	844
Indonesia	799
Canada	793
India	768
South Korea	729
United States	720
Brazil	679
Argentina	659
Mexico	586
Spain	471
Germany	471
United Kingdom	450
Japan	400
Italy	369
France	344

For green taxes to reduce emissions even by a small amount it is necessary that the reductions in emissions that come from energy efficiency and lower production outweigh any increase due to production being transferred to less efficient plants abroad. If they do not then green taxes can increase global emissions.

²³ Baumert, K. A., Herzog, T. & Pershing, J. "Navigating the Numbers: Greenhouse Gas Data and International Climate Policy", Chapter 5, http://pdf.wri.org/navigating_numbers_chapter5.pdf, World Resources Institute

4. Air Passenger Duty

Air Passenger Duty raised £1 billion in 2006-07.²⁴ The 2006 Pre-Budget Report announced a doubling of the rates to £10 for an economy short-haul flight and £40 for an economy long-haul flight, while non-economy class passengers pay twice these rates. In 2007-08, revenue from Air Passenger Duty is consequently set to double, to £2.1 billion.²⁵

Table 4.1: Air Passenger Duty rates²⁶

Type of flight	Air Passenger Duty rate pre-February 2007, £	Air Passenger Duty rate post-February 2007, £
Intra-EU economy	£5	£10
Intra-EU non-economy	£10	£20
Long-haul economy	£20	£40
Long-haul non-economy	£40	£80

Table 4.2: Revenue raised from Air Passenger Duty²⁷

Year	Air Passenger Duty revenue, £ billion
2005-06	£0.9 billion
2006-07	£1.0 billion
2007-08	£2.1 billion

This increase in Air Passenger Duty, however, is unlikely to have the environmentally-friendly effects its proponents would suppose. In fact, according to a recent paper published by the Economic and Social Research Institute in Dublin, its effect is likely to be counter-productive, increasing rather than reducing total emissions.²⁸

The blunt way in which the duty operates explains why it functions poorly as a green tax. Air Passenger Duty applies one charge to all short-haul flights and another to all long-haul flights, while rates are double for non-economy passengers. Two problems ensue:

- Firstly, the vast disparities in distance flown, and emissions generated, between flying from London to Paris and Rome (both within the short-haul band) and London to New York and Sydney (both within the long-haul band) are ignored. Air Passenger Duty therefore reduces the difference in price between trips of different distances within the short-haul and long-haul bands. In this way, it actually incentivises flying longer distances.

²⁴ HM Treasury, *Budget 2007*, Table C8: Current receipts, March 2007.

²⁵ Ibid.

²⁶ HM Treasury, *Pre-Budget Report 2006: Chapter 7 – Protecting the Environment*, paragraph 7.82

²⁷ HM Treasury, *Budget 2007*, Table C8: Current receipts, March 2007.

²⁸ Mayor, K. & Tol, R. S. J. "The impact of the UK aviation tax on carbon dioxide emissions and visitor numbers" Working Paper FNU-131, Economic and Social Research Institute, Dublin, April 2007

- Secondly, although the number of flights determines the amount of emissions generated by air travel, the charge is levied per passenger journey, not per aircraft journey. Airline companies are therefore given no incentive to completely fill aircraft. In one of the most extreme cases, a British Airways franchise operated an empty flight daily from London to Cardiff simply to hold on to its lucrative slots at Heathrow.²⁹

The first of these problems is by far the most serious. The Economic and Social Research Institute analysed the effect of the doubling of Air Passenger Duty using the Hamburg Tourism Model.³⁰ Their analysis showed that the Air Passenger Duty increase would direct passengers from the UK to more distant destinations and passengers to the UK to other destinations. This would have two harmful effects:

- The increase in Air Passenger Duty was found to have only a slight effect on emissions, but in the form of an *increase*. In other words the effect of the tax rise is directly counter-productive.³¹
- Abolishing Air Passenger Duty would increase arrivals to the UK by 332,000 per year compared to doubling it.³² The average visitor spends £470 while they are in the UK.³³ Abolishing Air Passenger Duty would therefore provide a £156 million boost to Britain's tourism industry.

It is again clear that Air Passenger Duty, like Fuel Duty, is functioning not as a green tax but as another device to raise revenue, hitting those for whom budget airlines have made flying affordable for the first time.

²⁹ O'Connell, D. and Chittenden, M., *The Flight Now Leaving Heathrow is ... Empty*, The Times, 11 March 2007 <http://www.timesonline.co.uk/tol/news/uk/article1496766.ece>

³⁰ Mayor, K. & Tol, R. S. J. "The impact of the UK aviation tax on carbon dioxide emissions and visitor numbers" Working Paper FNU-131, Economic and Social Research Institute, Dublin, April 2007

³¹ Ibid.

³² Ibid.

³³ Visit Britain, "*Britain's tourism deficit soars despite record visitor numbers*", December 2005

5. "Bin taxes" and the Landfill Tax

The idea of imposing charges for the collection of household rubbish has been gaining ground in all layers of government:

- Local authorities are keen to find a new way to raise revenue, given that council tax increases are capped at 5 per cent. The Local Government Association has said "the Chancellor's three-year spending review has awarded councils a funding rise of just 0.6 per cent in the first year – a cut in real terms [...] The settlement for the next two years – around one per cent over inflation – will be quickly eaten up by already cash starved services."³⁴
- Central government has also supported the idea of reducing weekly bin collections and charging for non-recyclable waste.³⁵ The Government has increased Landfill Tax rates by £3 per tonne to £24 per tonne from April 2007 and plans to increase it by £8 per tonne in each year from 2008 until at least 2010-11³⁶ while revenue from the tax has risen from £700 million in 2005-06 to a projected £900 million in 2007-08.³⁷
- The EU's Landfill Directive sets stringent targets to reduce landfill waste. The National Audit Office noted that "the Prime Minister's Strategy Unit suggested that the United Kingdom could be fined up to £180 million a year".³⁸

The final cost that households could face under a "bin tax" scheme is unclear. A number of estimates have put it at around £120 per household per year.³⁹ Richard Hobbs, Chief Waste Officer of Wandsworth Council, has looked at the cost of administering the scheme and charges in the areas of the Republic of Ireland where it has been introduced and, in a letter passed to the TaxPayers' Alliance by an anonymous supporter, predicted that the final charge could be as high as £1,000 per year.⁽⁴⁰⁾

As well as these direct financial costs to households there are wider costs, in terms of harms to the physical environment, if bin taxes encourage fly-tipping. The risk of this happening has been recognised for some time. Increases in fly-tipping around Dartmoor were attributed to charges for disposing of business waste as far back as 2002.⁴¹

³⁴ Bird, H. "Waste targets cannot be delivered without funding, says LGA", Local Government Association, August 2004, <http://www.lga.gov.uk/PressRelease.asp?lSection=0&id= SX95EE-A7826EF9>

³⁵ BBC News, "Bin charges 'to boost recycling'", May 2007

³⁶ HM Treasury, *Budget 2007*, Paragraph 7.90: Landfill Tax, March 2007.

³⁷ HM Treasury, *Budget 2007*, Table C8: Current receipts, March 2007.

³⁸ National Audit Office, *Department for Environment, Food and Rural Affairs: Reducing the reliance on landfill in England*, July 2006

³⁹ Wilson, G. "Families face £120 a year tax on their rubbish", *Daily Telegraph*, February 2007

⁴⁰ See Appendix for a copy of the letter in full.

⁴¹ BBC News, "Fly tipping blights Dartmoor", <http://news.bbc.co.uk/1/hi/england/2586393.stm>, December 2002

Despite claims to the contrary, the experience of the introduction and increase of local authority parking charges in the 1990s suggests that any introduction of charges for rubbish collection will not result in an equal and compensatory reduction in council tax:

- In 2005 councils raised a record £1.2 billion from parking charges, an increase of 82 per cent over the amount nine years earlier.⁴²
- Over the same period average council tax bills rose by 76 per cent.⁴³

It is clear, therefore, that new bin taxes are likely to be levied in addition to rising council tax. This is partly due to local authorities' demand for more revenue, and partly because higher landfill charges are being imposed upon town halls, both from the Government's Landfill Tax increases and from the threat of fines under the EU's Landfill Directive.

The objective of both the Landfill Tax and proposed new measures such as bin taxes is supposed to be to increase the amount of recycling and cut the amount of waste going to landfill. New measures, or an increase in Landfill Tax, can be justified if there are significant externalities to people choosing to dispose of their rubbish at landfill instead of by recycling, that are not accounted for under the present system. This, however, is unlikely to be the case:

- More energy is generally used in producing new products rather than recycling old ones but this energy use will be taxed, when the new good is produced, by other green measures such as the EU Emissions Trading Scheme and the Climate Change Levy.
- There may be externalities to those living or working in a small geographical area around a landfill site; one possible example is the smell. However, in this regard landfill is little different to other industrial sites that also produce noise or smells. Planning regulation is the accepted way in which Britain, along with most other countries, regulates where such externalities are acceptable.

Therefore, the only externality which Landfill Tax, bin taxes and other measures designed to encourage recycling are appropriate measures to correct is any global warming effect of methane emissions from landfill sites. It can be shown, however, that the existing Landfill Tax is already more than sufficient to cover this externality.

Methane emissions are converted to CO₂ equivalent at a rate of 1 tonne of methane:21 tonnes of CO₂.⁴⁴ Given the amount of methane produced by UK

⁴² Daily Telegraph, "Motorists pay record £1bn parking bill", June 2006

⁴³ Office of the Deputy Prime Minister, "Statistical Release: Levels of council tax set by local authorities in England, 2006-07", March 2006

⁴⁴ European Environment Agency, "carbon dioxide equivalent – Glossary – EEA", downloaded from http://glossary.eea.europa.eu/EEAGlossary/C/carbon_dioxide_equivalent on 8/8/2007

landfill in 2005, a range of estimates of the total social cost of landfill methane emissions can be generated based on the estimates of the social cost of carbon shown in Table 1.1. These estimates range from £79.3 million to £910.1 million.

Table 5.1: Estimates of the social cost of methane from UK landfill⁴⁵

Organisation/ person	Methane emissions from UK landfill, 2005, tonnes	CO ₂ equivalent emissions from UK landfill, 2005, millions of tonnes	Social cost of CO ₂ , per tonne, £	Social cost of methane emissions from UK landfill, 2005, £ million
Nordhaus	928,000	19.5 million	£4.07	£79.3 million
IPCC	928,000	19.5 million	£6.59	£128.4 million
Tol	928,000	19.5 million	£13.94	£271.8 million
Stern	928,000	19.5 million	£46.70	£910.1 million

This range of social cost estimates can then be compared with the £700 million raised from Landfill Tax in the corresponding year.

Table 5.2: Social cost of UK landfill compared with Landfill Tax revenue⁴⁶

Organisation/ person	Social cost of methane emissions from UK landfill, 2005, £ million	Total revenue from Landfill Tax, 2005-06, £ million	Landfill Tax revenue in excess of social cost of methane emissions from UK landfill, 2005, £ million
Nordhaus	£79.3 million	£700 million	£620.7 million
IPCC	£128.4 million	£700 million	£571.6 million
Tol	£271.8 million	£700 million	£428.2 million
Stern	£910.1 million	£700 million	-£210.1 million
Average	347.4 million		£352.6 million

This comparison shows that only under Stern's unusually high social cost estimate does Landfill Tax alone not account for the entire social cost of landfill methane emissions. Even then the difference is very small and will probably have been wiped out by further rises in Landfill Tax revenues since 2005, given that landfill emissions have declined every year since 1990.⁴⁷

Other estimates suggest that the tax should be significantly reduced. The Intergovernmental Panel on Climate Change estimate implies that Landfill Tax should only be levied at a rate that raises a fifth of its current revenue.

⁴⁵ DEFRA, "e-Digest Statistics about: Climate Change - UK Emissions of Greenhouse Gases", January 2007, <http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

⁴⁶ HM Treasury, *Budget 2007*, Table C8: Current receipts, March 2007.

⁴⁷ DEFRA, "e-Digest Statistics about: Climate Change - UK Emissions of Greenhouse Gases", January 2007, downloaded from <http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm> on 8/8/2007



Once again, planned bin taxes and the Landfill Tax are in excess of the level they need to be to correct for environmental externalities. They have become simply another revenue-raising measure.

6. Emissions trading

The European Union Emissions Trading Scheme (ETS), designed to help EU countries reduce greenhouse gas emissions, has been in operation since 2005. The first stage of the Emissions Trading Scheme is due to be completed by the end of this year. It will be followed by a second stage running from 2008 to 2012.

The first stage has suffered from a number of problems, as highlighted by the Open Europe think tank:

- The EU ETS has meant an annual £470 million subsidy from the UK to the rest of the EU. Each country was allowed to set its own targets for emissions reduction and the UK, which set a strict target, paid a subsidy to other countries which did not. Almost every other nation participating in the scheme made a profit.⁴⁸
- Public sector organisations proved unable to effectively trade emissions. The Russells Hall Hospital in Dudley lost £284,390 under the EU ETS. Many other hospitals in the UK bought permits at the top of the market and the total cost to the NHS was nearly £6 million.⁴⁹
- More experienced traders, including major oil companies such as BP and Shell, managed to make a profit. Shell made £49.9 million out of selling its unused allocation.⁵⁰
- The government's preliminary Regulatory Impact Assessment suggests that the ETS is costing £62 million per year in administrative costs to British firms and public sector bodies alone.⁵¹

Unfortunately, as the following evidence shows, the second stage is unlikely to prove any more effective:

- Phase II includes a mechanism for "importing external Kyoto credits", often from Third World projects that would have gone ahead anyway. The House of Commons Environmental Audit Committee argued that there is "compelling evidence" that Kyoto-credit projects "should be subject to serious doubt".⁵²
- The system subsidises some high-emission industries. Economist Karsten Neuhoff describes how "the level of such subsidies under proposed second-phase NAP is so high that the construction of coal power stations

⁴⁸ Open Europe, *"The high price of hot air: Why the EU Emissions Trading Scheme is an environmental and economic failure"*, July 2006

⁴⁹ Kite, M. "NHS carbon trading sees millions go up in smoke", *Daily Telegraph*, November 2006

⁵⁰ Open Europe, *"The high price of hot air: Why the EU Emissions Trading Scheme is an environmental and economic failure"*, July 2006

⁵¹ Ibid.

⁵² Open Europe, *"Europe's dirty secret: why the EU Emissions Trading Scheme isn't working"*, August 2007

is more profitable under the ETS with such distorting allocation decisions than in the absence of ETS".⁵³

- Germany, despite emitting 75 per cent more CO₂ than the UK, will pay at least €150 million less than Britain under a high emissions price scenario, or almost €200 million less than Britain under a low emissions price scenario. France may make a profit as its emissions target is actually above its current level of emissions.⁵⁴

The EU Emissions Trading Scheme may be a particularly bad example of such trading schemes, but there are a number of common problems in attempts to create a market for emissions.

Any international trading scheme will result in some nations paying money to others whether for just reasons, when they are moving more slowly in cutting emissions, or unjust ones, when the system is set up unfairly as it has been for the United Kingdom under the EU scheme. These kinds of transfers from country to country will make emissions trading particularly difficult as each country attempts to ensure that its interests are not compromised. Six member states are currently suing the European Commission over their allocations

Emissions trading schemes are also subject to large amounts of unpredictability. A study for the American Enterprise Institute found that under the Californian RECLAIM emissions trading scheme, permit prices ranged between \$1,000 and \$45,000 per tonne.⁵⁵ Open Europe report that prices in the EU ETS fell from €30.50 to €9.25 per tonne over the course of a few days.⁵⁶ Longer-term uncertainty is created by the periodic reviews of the method by which annual allocations are set. This instability creates a series of problems:

- Undermines business confidence in investing for the future which will do significant medium-term damage to industry.
- Makes it more likely that organisations taking part in the cap and trade system that have limited trading experience will get things wrong and make significant trading losses.

Even with a well-constructed emissions trading scheme, one of the main effects will be to transfer emissions from firms operating within the scheme to firms in other countries. To the extent that the overseas firms are less energy-efficient (emitting a greater quantity of emissions for each unit of output), the net effect of emissions trading schemes can be to increase global emissions.

⁵³ Ibid.

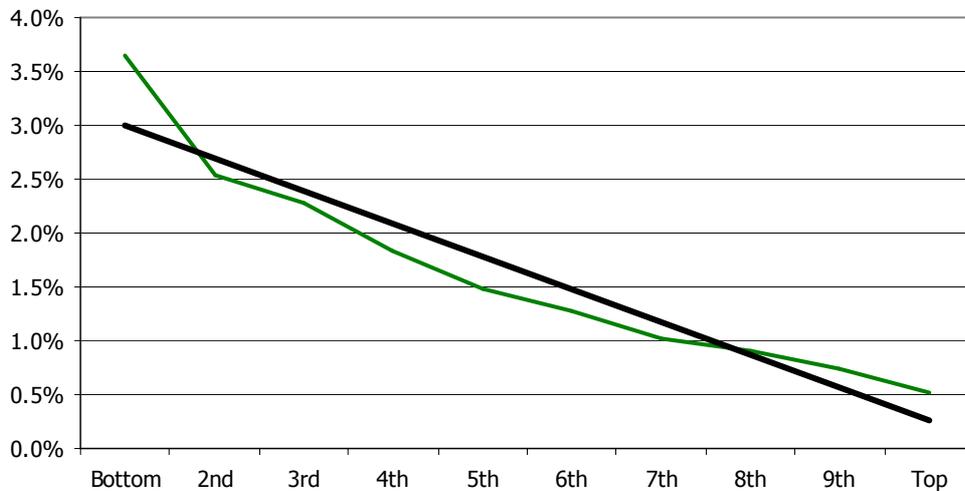
⁵⁴ Ibid.

⁵⁵ Green, K. P., Hayward, S. F. & Hassett, K. A., "Climate Change: Caps vs. Taxes", June 2007

⁵⁶ Open Europe, "The high price of hot air: Why the EU Emissions Trading Scheme is an environmental and economic failure", July 2006

Emissions trading schemes, and other measures, such as the Renewables Obligation, increase the price of electricity for domestic consumers. As such, they are highly regressive. As Chart 6.1 below shows, poorer households spend far more of their gross income on electricity than richer households, meaning that electricity price rises have a much greater impact on their finances. Indeed, concerns have recently been raised about the impact of fuel poverty. Britain has the highest number of avoidable deaths from winter cold in Western Europe.⁵⁷

Chart 6.1: Spending on electricity as a percentage of gross weekly income by household income decile, 2005-06⁵⁸



When emissions trading schemes have been badly set up, as in the case of the EU Emissions Trading Scheme, the results are very much worse. The EU ETS has resulted in an enormous subsidy from Britain to other EU countries, has cost the NHS millions of pounds, and has proved expensive to administer. The second phase of the scheme is unlikely to bring with it either improvements or lower costs to British firms.

⁵⁷ BBC News, *Fuel poverty is new "social evil"*, August 2005

<http://news.bbc.co.uk/1/hi/business/4656517.stm>

⁵⁸ Office for National Statistics, *The Effects of Taxes and Benefits on Household Income 2005-06*, Table 24, Appendix 1; Office for National Statistics, *Family Spending 2005-06*, Table A8

7. Conclusion

This report has presented a case against the imposition of further green taxes in Britain. It has outlined, for the first time, the negative impact of environmental taxes on consumers, businesses and public sector organisations such as the NHS.

Overall, comparing an average of official and academic estimates of the social costs of the UK's entire output of CO₂ emissions with the revenue raised from green taxes and charges (excluding Air Passenger Duty and net of road spending), environmental levies are already £10.2 billion in excess of the level they need to be to cover these social costs. This excess is equivalent to over £400 for each household in Britain. Green taxes are therefore already too high unless they are seen simply as revenue-raising measures.

In many cases, individual green taxes and charges are failing to meet their objectives, are set at a level in excess of that needed to meet the social cost of CO₂ emissions, and are causing serious harm to areas of the country and industries least able to cope:

- Fuel Duty and Vehicle Excise Duty, net of spending on roads, are already between 3.6 and 40.9 times higher than the level needed to ensure that drivers cover the official and academic estimates of the social cost of CO₂ emissions, costing each motorist an average of between £548 and £743 each year.
- Under the Climate Change Levy, the North East, England's poorest region, pays over 35 per cent more as a proportion of regional Gross Value Added, than the South East, England's richest region outside London.
- The doubling of Air Passenger Duty announced in last year's Pre-Budget Report is actually likely to have increased total emissions from air travel, incentivising longer flights within the short-haul and long-haul bands.
- Landfill Tax, which has been increased a number of times by the current government, is already raising up to £620 million more than would be sufficient to meet the social costs of methane emissions from landfill. Planned new bin taxes are likely to represent yet another supplementary charge on stretched household finances.
- The EU's Emissions Trading Scheme has resulted in an annual £470 million subsidy from the UK to the majority of EU countries that have not placed strict targets for overall reductions in emissions.

This report has raised serious questions about the merits of imposing new or higher environmental taxes. In many cases, green taxes are not a benign alternative to taxes on income or profits. In the worst cases, they can even be counter-productive.

Appendix

A letter from Richard Hobbs, Chief Waste Officer of Wandsworth Council, to a TaxPayers' Alliance supporter, makes the case against charges for rubbish collection:



Wandsworth Council

Leisure and Amenity Services Department
The Town Hall Wandsworth High Street
LONDON SW18 2PU

Please ask for/reply to: Richard Hobbs
Telephone: (020) 8871 6938
Fax: (020) 8871 6383
Email: rhobbs@wandsworth.gov.uk

Our ref: LAS/WM/fitzh01/rh
Your ref:
Date: 2 March 2007

Dear [REDACTED]

Charging for waste collections

The Director of Leisure and Amenity Services has asked me to respond to your letter dated 20th February 2007 about "pay-as-you-throw" proposals.

Firstly, the proposal is from the Local Government Association (LGA) who have had requests from some of its members who wish to institute "direct and variable charging" (DVC) as a means of increasing the levels of waste recycled and reducing waste to landfill. The LGA have only requested a power to charge is made available but, so far, there is no suggestion that all authorities would have to adopt it.

As you may be aware, this Council introduced the "orange sack" scheme for collecting dry recyclate (paper and card, and glass, metal and plastic containers) in 2003 for residents whose ordinary rubbish is collected in sacks or small bins. A year later we started to provide "orange banks" for residents whose rubbish is collected in communal bulk bins. Provision of these to the 40% of residents with bulk bins (such as the Royal Victoria Patriotic Building) has taken longer as many blocks have little space for extra bins but we now have orange sack or orange bin recycling services provided to 98% of residents and are looking at the remaining 2%. The orange services have been very popular and immediately doubled our recycling rate, which continues to grow as more residents find how easy it is to recycle.

This Council has worked on the principle that recycling should be made easy for residents, when they will respond. This works and the Council's dry recycling rate is one of the best in London. The London Borough of Barnet has been threatening its residents with prosecution if they do not recycle but still achieves less than Wandsworth, thus we are not persuaded that such threats are worthwhile. Neither are we of the view that DVC is needed to make residents recycle.

Direct charging is used in Eire and elsewhere in Europe. However the experience in Eire leads us to suggest that implementation in England would be difficult, to say the least. To have any practical effect on recycling levels, DVC needs to be based on the amount of residual refuse from each premise. In practice, this means giving residents a wheelie-bin with a radio tag to identify the user and fitting all refuse vehicles with weighing equipment. For premises with bulk bins, fitting tags might require replacing old bins with more suitable new bins but this could be done. However, the motivation of occupiers of flats would obviously be less than those with their own bin.

www.wandsworth.gov.uk

Director of Leisure and Amenity Services: Peter Brennan DMS MCMI AssocMCiWM MinstD
Acting Deputy Director of Leisure and Amenity Services: Peter Robinson F.Inst.SRM.Hons

The Council's refuse and recycling services cost each household about £2 a week (say £1 for general refuse and £1 for recycling). No costings have been carried out on providing a DVC service for households but, one district in Eire charges about £7 a week for each wheelie bin for general refuse but does not make any variation for the weight of refuse. Possibly this would mean DVC charges between £5 and £20 a week for each wheelie bin with a reduction of the Council Tax of £1 a week. The Council will need to wait to see if the Government wishes to allow or require the introduction of DVC. However, it is difficult to see how DVC can be considered to give any value for the extra expenditure.

The Council last considered wheelie-bins in 2003 and decided that they were not appropriate for Wandsworth and is not set to reconsider this in the immediate future.

As you note, the Mayor of London wishes to impose more controls over the way boroughs deal with waste in the capital. Wandsworth does not consider this to be warranted and the Government only proposes limited extra controls. However, Mr Livingstone seems confident that enough MPs will back his proposals so you may wish to let your MP, Mr Sadiq Khan, know your views.

Both the Mayor of London and Government have been suggesting a household waste recycling target of 55 to 60%. It is this Council's view that such levels are impractical in an inner London borough such as Wandsworth. The borough will reach the current Government target of 24% and can see that the present services could eventually achieve 30%. Whilst less developed areas may well be able to collect a lot of garden waste for composting and reach 50+%, Wandsworth has few gardens. Thus a high target might well require an expensive and messy service for collecting kitchen waste as well as collecting available garden waste.

The Council does not consider that the costs of such services can be justified. Instead it believes that the Mayor and Government should focus on the obligations under the EC Landfill Directive which requires the diversion of biodegradable waste from landfill. The Council supports Western Riverside Waste Authority in its plans to build a 585,000 tonne a year Energy-from-Waste (EfW) plant at Belvedere on the Thames in the London Borough of Bexley and a new Materials Recovery Facility at Smugglers Way, SW18. These will provide cost effective facilities for Wandsworth so that the Directive targets are bettered to the benefit of all of London with dry recycling maximised.

I hope that this gives answers to your questions.

Yours sincerely



Richard Hobbs
Head of Waste Management