

## Don't expect much extra revenue from green taxes, says study prepared for the Mirrlees Review

The UK's green taxes should be reformed to achieve their environmental objectives more effectively, but policymakers should be wary of calls for a big increase in green taxes to finance a significant shift away from the use of other taxes. So argues a study commissioned by the Mirrlees Review of the UK tax system, which is being chaired by Nobel prize-winner Professor Sir James Mirrlees for the Institute for Fiscal Studies.

A switch from taxes on work to taxes on pollution and other undesirable environmental spillovers would not necessarily improve the functioning of the wider economy, according to Don Fullerton (University of Texas), Andrew Leicester (IFS and University College London) and Stephen Smith (University College London and IFS).<sup>1</sup> Just like other taxes, green taxes can raise production costs and output prices, weakening work incentives. So a 'green switch' from labour to environmental taxes would not necessarily provide the beneficial 'double dividend' of improving economic performance as well as protecting the environment that some advocates suggest. So the authors argue that, while there is a good case for environmental tax reform, it "should appeal first and foremost to the potential environmental gains".

The most economically efficient way to reduce greenhouse gas emissions would be the auctioning of tradable emissions permits or a widely-applied carbon or energy tax. This would raise around £13 billion, based on the £80 per tonne price of carbon implied by the Stern Review. But £2.4 billion of this would be raised from road transport, which should arguably be offset by cuts in road fuel duty. Similarly, the Government should probably forgo the £0.7 billion raised from energy use by industry through the Climate Change Levy. This implies that the potential revenue gains would be well under 1% of national income. The potential revenue would be reduced by a further £1.7 billion – and the effectiveness of the policy weakened - if the Government felt it necessary for political reasons to exempt the use of domestic fuel.

Even if there little scope to shift a significant part of the tax burden onto environmental taxes, the study argues that there remains considerable scope for useful reform:

- The UK government should push the EU to introduce full auctioning of permits in the EU emission trading scheme as soon as practicable, and should auction permits in the UK to the greatest extent currently permissible.

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**IMPORTANT: Please note that the research described in this Release is a submission to the Mirrlees Review and that the conclusions reached will not necessarily be adopted in the final report. We are publishing a number of such submissions over the coming weeks and the review team would welcome feedback to [mirrleesreview@ifs.org.uk](mailto:mirrleesreview@ifs.org.uk)**

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<sup>1</sup> <http://www.ifs.org.uk/mirrleesreview/reports/environment.pdf>

- The authors note that road fuel duty is much higher in the UK than the environmental cost of vehicle emissions would appear to justify. The overall level may be justified by the much greater costs of congestion, but taxes on fuel are a very blunt instrument for dealing with this problem. This suggests that a national system of road pricing should be introduced as soon as it is administratively and politically feasible, with the revenue raised from it offset by cuts in road fuel duty.
- The authors welcome the Government's decision to re-think the current 'per passenger' tax on aviation (Air Passenger Duty). They argue that the best available package would combine fuel taxes and ticket excise taxes on domestic flights, coupled with taxes on international departures that vary according to the noise, emissions and other environmental characteristics of the flight. International cooperation would be needed to achieve an optimal aviation tax regime that would avoid disruptive effects on competition and wasteful diversion and avoidance.
- The UK landfill tax has been raised to levels much higher than the environmental costs of landfill justify. Charging for household waste collection by volume or type would probably reduce the amount of waste somewhat, but with only modest potential welfare gains and at the risk of increased dumping and other avoidance. Alternatives that may reduce the risk of dumping include advance disposal fees (such as packaging taxes on drink containers) or deposit-refund systems.

The Mirrlees Review team also asked leading international experts to comment on the proposals made by the authors of the paper and on the wider issues they discuss:

- Paul Johnson (IFS and Frontier Economics) and Nicholas Stern (House of Lords and London School of Economics) argue that climate change differs from other environmental problems - it is global in nature and its effects are very long term, highly uncertain but potentially catastrophic. This leads them to conclude that participation in international emissions-permit trading schemes should be at the heart of policy. They argue that other policies will be needed but, in particular, express concern that the EU renewables target will require very careful design to avoid encouraging countries to reduce emissions in inefficiently expensive ways. Johnson and Stern agree with Fullerton, Leicester and Smith that a sensible green tax regime is unlikely to raise even an extra 1% of national income in revenue for the government. They also agree that motoring should not be moved into a 'cap and trade' system, with road pricing combined with fuel taxes to be preferred.<sup>2</sup>
- Agnar Sandmo (Norwegian School of Economics and Business Administration) argues that if companies under-report their emissions to evade an environmental tax, the Government may set the tax rate too low, but that efforts to reduce pollution may still be allocated efficiently across different firms. He suggests that the existence of a possible 'double dividend' may have taken a greater prominence in the policy debate than it merits in part because economists find it a more effective way to persuade politicians to adopt environmental taxes than appeals to their environmental goals.

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<sup>2</sup> [http://www.ifs.org.uk/mirrleesreview/commentaries/johnson\\_stern.pdf](http://www.ifs.org.uk/mirrleesreview/commentaries/johnson_stern.pdf)

Sandmo also argues that, for distributional reasons, increases in carbon taxes (or reductions in permits issued) in rich countries should be welcomed even if poor countries do not follow suit.<sup>3</sup>

Commenting on the study and commentaries, Robert Chote, Director of the IFS, said:

“The green tax system in the UK is ripe for reform, so as to achieve the Government’s environmental objectives more effectively. A significant ‘green switch’ in taxation also has great rhetorical appeal, but this study suggests that enthusiasts often overestimate the available revenues and claim a “double dividend” of improved environmental and economic performance that may not exist. Perhaps of greater concern to the politicians is the fear that they would be punished by the voters for increasing green taxes without being given much credit for reducing other ones.

We are very grateful to the authors of the main study, and to the commentators, for their important contributions. They are very valuable and interesting pieces of work in their own right, as well as providing food for thought for Sir James and his team when they draw up their final conclusions.”

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Notes to editors:

1. The Mirrlees Review, funded by the Nuffield Foundation and the ESRC, brings together IFS researchers and other international experts to identify what makes a good tax system for any open developed economy in the 21st century and to recommend how the UK tax system might realistically be reformed in that direction (<http://www.ifs.org.uk/mirrleesreview>). The project has been inspired by the 30th anniversary of the 1978 Meade Report, a landmark in the study of tax design and perhaps the most influential output of the IFS to date.
2. The Review is chaired by Nobel Laureate Professor Sir James Mirrlees of the University of Cambridge. The Commission’s work is being directed by Tim Besley (LSE, IFS and Bank of England), Richard Blundell (IFS and UCL), Malcolm Gammie QC (One Essex Court and IFS Tax Law Review Committee) and James Poterba (MIT). The editorial team comprises: Stuart Adam (IFS), Stephen Bond (Oxford and IFS), Robert Chote (IFS), Paul Johnson (IFS and Frontier Economics) and Gareth Myles (Exeter and IFS). The final report will be published by Oxford University Press early in 2009.
3. A wider group of more than 60 IFS researchers and leading experts from around the world has contributed chapters, commentaries and special studies on key themes of the research. Pre-publication versions have been released on the IFS website: <http://www.ifs.org.uk/mirrleesreview/publications.php>. The final versions will be published by Oxford University Press as a companion volume to the final report.

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<sup>3</sup> <http://www.ifs.org.uk/mirrleesreview/commentaries/sandmo.pdf>