

[John Hills](#)

Safeguarding social equity during fiscal consolidation: which tax bases to use?

Book section

Original citation:

Originally published in Hills, John (2013) *Safeguarding social equity during fiscal consolidation: which tax bases to use?* In: Princen, Savina and Mourre, Gilles, (eds.) *The Role of Tax Policy in Times of Fiscal Consolidation*. Economic papers(502). [European Commission](#), Brussels, Belgium, pp. 80-93. ISBN 9789279323287

DOI: [10.2765/54257](https://doi.org/10.2765/54257)

© 2013 [European Union](#)

This version available at: <http://eprints.lse.ac.uk/58294/>

Available in LSE Research Online: July 2014

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (<http://eprints.lse.ac.uk>) of the LSE Research Online website.

This document is the author's submitted version of the book section. There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.



European
Commission

ISSN 1725-3187

EUROPEAN ECONOMY

Economic Papers 502 | August 2013

The role of tax policy in times
of fiscal consolidation

Savina Princen and Gilles Mourre



Economic and
Financial Affairs

European Commission
Directorate-General for Economic and Financial Affairs

The role of tax policy in times of fiscal consolidation

Proceedings of the workshop organised
by the Directorate General for Economic and Financial Affairs
held in Brussels on 18 October 2012

Edited by Savina Princen and Gilles Mourre

Economic Papers are written by the Staff of the Directorate-General for Economic and Financial Affairs, or by experts working in association with them. The Papers are intended to increase awareness of the technical work being done by staff and to seek comments and suggestions for further analysis. The views expressed are the author's alone and do not necessarily correspond to those of the European Commission. Comments and enquiries should be addressed to:

European Commission
Directorate-General for Economic and Financial Affairs
Publications
B-1049 Brussels
Belgium
E-mail: Ecfin-Info@ec.europa.eu

This paper exists in English only and can be downloaded from the website
ec.europa.eu/economy_finance/publications

A great deal of additional information is available on the Internet. It can be accessed through the Europa server (ec.europa.eu)

KC-AI-13-502-EN-N
ISBN 978-92-79-32328-7
doi: 10.2765/54257

© European Union, 2013

CONTENTS

1. INTRODUCTION	6
1.1 PURPOSE OF THE WORKSHOP	6
1.2 A FEW LESSONS FROM THE 2012 COMMISSION REPORT 'TAX REFORMS IN EU MEMBER STATES' by Gilles Mourre	8
1.2.1 The policy context	8
1.2.2 Tax reforms adopted in 2011 – 2012, when consolidation gains momentum	8
1.2.3 Main challenges relevant for tax policy in consolidation times	10
2. SUMMARY OF THE WORKSHOP	14
2.1 SESSION ON CONSOLIDATION ON THE REVENUE SIDE AND ITS MACROECONOMIC IMPACT	15
2.2 SESSION ON THE REDISTRIBUTIVE EFFECTS OF CONSOLIDATION ON THE REVENUE SIDE	18
2.3 CONCLUDING POLICY PANEL	21
3. SESSION I: CONSOLIDATION ON THE REVENUE SIDE AND ITS MACROECONOMIC IMPACT	22
3.1 TAX POLICY FOR CONSOLIDATION AND GROWTH by Michael Keen	23
3.1.1 The near-term	23
3.1.2 The medium- and longer-terms	24
3.1.3 Concluding	26
3.2 THE ROLE OF TAX POLICY IN FISCAL CONSOLIDATION: INSIGHTS FROM MACROECONOMIC MODELLING by Matthias Burgert and Volker Wieland	28
3.2.1 Introduction	28
3.2.2 A brief review of some recent findings	31
3.2.3 Macroeconomic models for evaluating the role of tax policy in fiscal consolidation	34
3.2.4 The impact of permanent changes in income taxes under different assumptions concerning government spending and debt	37
3.2.5 Fiscal consolidation with lower consumption and capital taxes	46
3.2.6 Monetary and fiscal policy interaction at the zero-lower-bound on nominal interest rates	47
3.2.7 Model comparison	50
3.2.8 Conclusions Appendix	52 56
3.3 DISCUSSION by Werner Röger	62
3.4 DISCUSSION by Salvador Barrios and Bert Saveyn	65
3.5 MEASURING CONSOLIDATION EFFORTS ON THE TAX SIDE by Savina Princen	68
3.5.1 Definition of discretionary tax measures	68
3.5.2 Size and composition of discretionary tax measures	68
3.5.3 Cyclicity of discretionary tax measures	69
3.5.4 Conclusions	72

3.6 CONSOLIDATION ON THE REVENUE SIDE: IRELAND by Gary Tobin	73
3.6.1 Introduction	73
3.6.2 Path to Recovery in Ireland	74
3.6.3 Front Loaded Fiscal Consolidation	75
3.6.4 Case Study: Universal Social Charge	75
3.6.5 Case Study: Jobs Initiative – Targeted Temporary Reduction in VAT	76
3.6.6 Concluding Remarks	78
4. SESSION II: REDISTRIBUTIVE EFFECTS OF CONSOLIDATION ON THE REVENUE SIDE	79
4.1 SAFEGUARDING SOCIAL EQUITY DURING FISCAL CONSOLIDATION: WHICH TAX BASES TO USE? by John Hills	80
4.1.1 Meanings of ‘social equity’	80
4.1.2 Fiscal consolidation options	81
4.1.3 General spending cuts and tax increases	82
4.1.4 Specific options for fiscal consolidation	84
4.1.5 Conclusions	91
4.2 DISCUSSION by Marcel Gerard	94
4.3 SHOULD WE MAKE THE RICHEST PAY TO MEET FISCAL ADJUSTMENT NEEDS? by Thomas Piketty	99
4.3.1 The rise of European wealth-income ratios	99
4.3.2 A proposal for a European wealth tax	101
4.3.3 Conclusion	101
4.4 DISCUSSION by Francesco Figari	103
PROGRAMME	108

List of speakers and discussants

Madis Aben, Ministry of Finance, Estonia (*Speaker*)

Salvador Barrios, European Commission – Joint Research Centre (*Discussant*)

Matthias Burgert, Goethe University of Frankfurt, Germany (*Speaker, Co-author of the commissioned paper on Tax modelling*)

Vieri Ceriani, Ministry of Economy and Finance, Italy (*Speaker, Panellist*)

Francesco Figari, University of Insubria, Italy (*Discussant*)

Georg Fischer, European Commission - Directorate General for Employment, Social Affairs and Inclusion (*Chair of Session II, Panellist*)

Marcel Gérard, Catholic University of Louvain, Belgium (*Discussant*)

John Hills, London School of Economics, UK (*Speaker*)

Michael Keen, International Monetary Fund (IMF) (*Speaker*)

Thomas Larsen, Ministry of Taxation, Denmark (*Speaker*)

Gilles Mourre, European Commission – Directorate General for Economic and Financial Affairs (*Organiser, Keynote address, Panellist*)

Lucio Pench, European Commission – Directorate General for Economic and Financial Affairs (*Introduction and Chair of Session I*)

Thomas Piketty, Paris School of Economics, France (*Speaker*)

Savina Princen, European Commission – Directorate General for Economic and Financial Affairs (*Co-organiser, Speaker*)

Werner Röger, European Commission – Directorate General for Economic and Financial Affairs (*Discussant*)

Bert Saveyn, European Commission – Joint Research Centre (*Discussant*)

Gary Tobin, Department of Finance, Ireland (*Speaker*)

Volker Wieland, Goethe University of Frankfurt, Germany (*Co-author of the commissioned paper on Tax modelling*)

Acknowledgements

The workshop was coordinated by Savina Princen and organised under the supervision of Gilles Mourre (Head of Unit, DG ECFIN) and under the direction of Lucio Pench (Director, DG ECFIN). Patricia Tuite provided excellent administrative support to the organisation of the workshop and Eugeniu Colesnic contributed in a valuable way to the editing of these proceedings. We thank all the participants of the conference for their vivid presentations, insightful discussion and fruitful contributions.

4. SESSION II: Redistributive effects of consolidation on the revenue side

4.1 Safeguarding social equity during fiscal consolidation: which tax bases to use?

*John Hills**

This paper explores some of the equity issues that are – or at least should be – central to decisions about the composition of fiscal consolidation measures. It starts by discussing the varied possible criteria for assessing ‘social equity’ in the context of the crisis. It then sets out the possible options for fiscal consolidation and then compares the impacts of the overall choice between general reductions in public spending and increases in taxation. It then looks at four specific options in a little more detail, before concluding.

While most of the issues are general to any Member State, some of the illustrations are made using UK data, and discussed from a perspective of a country which starts with one of the highest levels of income inequality in the EU, and where over the medium term more than four-fifths of fiscal consolidation is planned to come from reductions in public spending, rather than increases in taxation. The paper does not discuss the appropriate scale or rate of consolidation from a macroeconomic perspective or the efficiency differences between different approaches.¹⁸

4.1.1 Meanings of ‘social equity’

An immediate issue in approaching this topic is that ‘safeguarding social equity’ could mean several different things, depending on one’s perspective. There could be at least eight interpretations, running roughly from the least to the most distributionally progressive:

- In coping with the unexpected national shock, all households should make an *equal contribution* – for instance through effectively lump sum tax increases, or through losses in services or cash benefits that have an equal value to each household.
- Governments should *withdraw gains* that people had previously made as a result of its activities that were in the long run unsustainable – for instance, by reversing public spending increases (or tax cuts) that were made at a time when there was what turned out to be an over-optimistic view of the public finances. That is, we were living beyond our means, and now need to adjust back to what was always the underlying reality.
- Contributions through higher taxes or losses of services should have an *equal proportionate impact* on each household depending on its resources, such as disposable income – that is, the effects should be neutral across the income distribution as measured at the start of the consolidation.

*Director, Centre for Analysis of Social Exclusion, London School of Economics and Political Science. The author is grateful to the UK Economic and Social Research Council for support of his time to write this paper (under Professorial Fellowship RES 051-27-2034), to Holly Sutherland and Tony Atkinson for advice and comments on an earlier draft, and to Marcel Gérard and other participants in the ECFIN Workshop of October 2012 for helpful comments on the original presentation.

¹⁸ See the papers by Michael Keen and Matthias Burgert and Volker Wieland in this collection, and European Commission (2012), chapter 5.

- A related requirement could be that impacts should be neutral between *generations*, either in absolute terms, or in proportion to their relative resources.
- Contributions should be *progressive*, with ‘the broadest shoulders carrying the largest burden’.
- Fiscal consolidation should be carried out in a way that *offsets* the distributional effects of other aspects of the crisis, such as rising unemployment or changes in real wages, that is, restores levels of inequality to pre-crisis levels.
- Contributions should come from those who had the largest gains *before the crisis*, on the grounds that it was the whole operation of the economy, and the growth in inequality in many countries, that was unsustainable, not just taxes and public spending.
- The burden should be borne by those judged to have *caused* the crisis, such as those in the financial sector.

Each of these interpretations would suggest a different evaluation of a particular package of measures. It might be noted, though, that in the current European context only in the first two cases would a regressive set of changes be consistent with the concept of social equity (with the possible addition of the fifth, if in a particular case the effect of the crisis had borne proportionately more heavily on the better-off than on the worse off). Several of the other concepts of equity would suggest that the impact of adjustment should in some way be progressive, and most that it should not be regressive.

4.1.2 Fiscal consolidation options

Governments have at their disposal a wide range of ways in which they could improve the fiscal balance. Each will have its own distributional and equity implications, and these will vary from country to country. These categories include the following (with those discussed in more detail below highlighted in bold):

- **General spending reductions**, across all public services and transfers.
- **Spending reductions targeted** by income or other criteria.
- Cuts in public sector wages.
- Specific indirect tax increases – such as on alcohol, tobacco, or motoring.
- Increases in VAT rates or **broadening of the VAT base**.
- Environmental taxes, such as an increase in the **Carbon price**.
- Income tax rates, reductions in income tax allowances or allowable deductions.
- Social insurance contribution rates or base-broadening (e.g. to the retired population, or through increasing ceilings for contributions).
- Stronger taxation of investment income or capital gains.
- **Reduction of tax privileges** – for instance for owner-occupied housing, pension contributions or other forms of saving.
- **Property or wealth taxes**.¹⁹
- **Taxes on wealth transfers** such as inheritance (on donor or donee basis) or gifts.

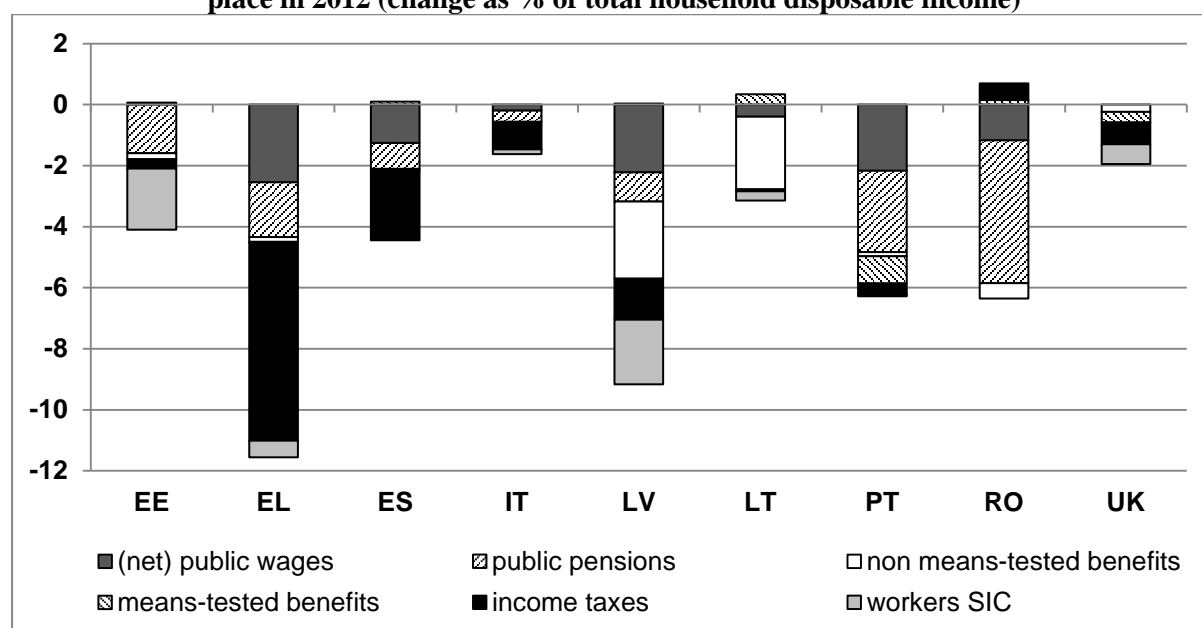
¹⁹ See Thomas Piketty’s contribution to this collection.

- Financial transactions taxes (such as ‘Tobin taxes’ or more traditional stamp duties).
- Measures to counter tax evasion or to reduce avoidance through closing down loopholes or tax havens.

4.1.3 General spending cuts and tax increases

While the impact of specific spending cuts or tax increases can vary greatly from that of general cuts or tax increases, the scale of the consolidation now being implemented by most governments makes it hard for them to be very selective. As a prelude to looking at implications of specific measures, it is important therefore to look at the difference between general – across the board – spending cuts and increases in all taxes. As shown in Michael Keen’s contribution to this symposium the IMF’s assessment of fiscal adjustments between 2010 and 2012 suggests that in the advanced countries under most fiscal pressure, tax increases represented just over 1.0 per cent of GDP, but spending reductions about 4.4 per cent. In other advanced countries, the average adjustment was much smaller, but spending cuts also accounted for at least 80 per cent of the total.

Figure 1: Aggregate effect of simulated household income-based fiscal consolidation measures in place in 2012 (change as % of total household disposable income)



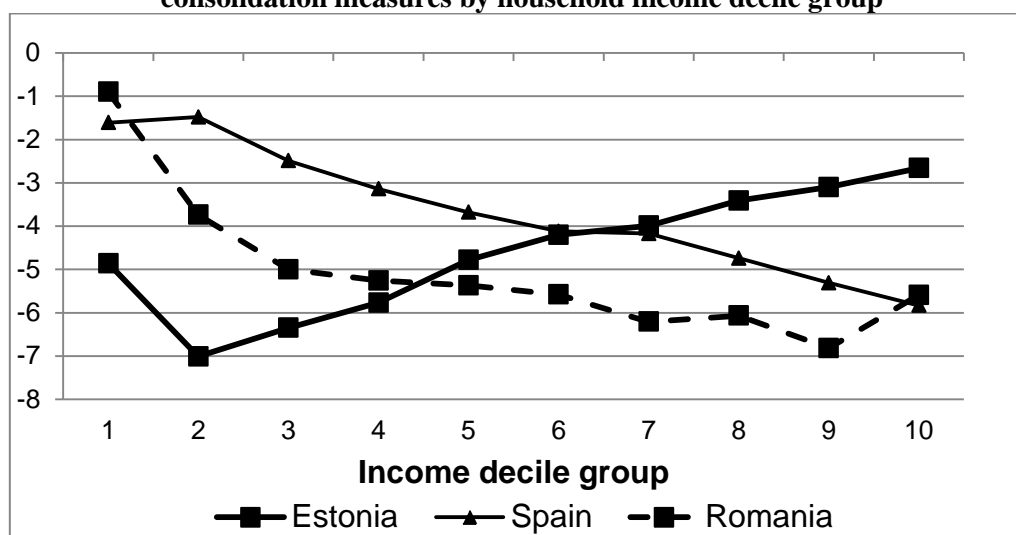
Source: Avram, *et al.* (2012), figure 1, based on results from EUROMOD.

This balance varies greatly between countries, however, and with it, distributional effects. Figure 1 shows the measures whose distributional effects have recently been examined for nine EU Member States by Avram, *et al.* (2012) using the simulation model, EUROMOD. The measures covered are only some of those which have contributed to each country’s total, importantly excluding indirect taxes increases and cuts in services. They include, however, increases in direct taxes, cuts in benefits of different kinds, and reductions in public sector wages. The analysis relates only to measures in place by June 2012. In some cases, such as the UK, the balance of early measures has been much more weighted to tax increases – which are easier to implement quickly – than is planned for the medium-term. While in Greece (EL) and Spain (ES), income tax accounted for half or more of these early measures, in countries

such as Portugal (PT) and Romania (RO) nearly all of the adjustment came on the spending side. In Estonia (EE), half of the adjustment came from employee social insurance contributions.

This mix affects the overall distributional impact. Figure 2 contrasts the modelled effects of these changes in Estonia, Spain and Romania. In all three countries the total effect of the modelled measures is between 4 and 6 per cent of GDP. In Estonia, the overall impact is regressive, with a smaller proportionate impact the higher one goes up the income distribution. This reflects the regressive effects of cuts to public pensions alongside a general proportional effect of increased social insurance contributions. By contrast, in Spain the increases in direct taxes are progressive and larger in scale than the (somewhat regressive) cuts to public pensions. The overall impact on households in the top half of the distribution is largest in Romania – from a combination of cuts in public sector wages (progressive) and a large contribution from reduced public pensions (with a roughly proportional effect, but little impact on the poorest tenth).²⁰ If VAT rate increases are allowed for (5 percentage points in Spain and Romania, 2 percentage points in Estonia), the regressive effects in Estonia are increased, while the progressivity of the changes in Spain and Romania is reduced.²¹

Figure 2: Percentage change in household disposable income due to simulated fiscal consolidation measures by household income decile group



Source: Avram *et al.* (2012), figure 2, based on results from EUROMOD.

A substantial part of public spending is not covered in analyses of this kind, however – that on services or in kind benefits (to the extent it is not covered by changes in public sector wage levels). In kind benefits are usually equivalent to a much larger proportion of the disposable incomes of those with lower than of those with higher incomes. Verbist, Forster and Vaalavuo (2012, table 7) find that they averaged the equivalent of 76 per cent of the disposable income of the poorest fifth across 27 OECD countries, but only 14 per cent of

²⁰ Details for each country presented in figure 3 of Avram, *et al.* (2012).

²¹ Avram, *et al.* (2012), figure 5. The pattern is similar in the other countries covered, with, for instance, the early UK measures emerging as mildly regressive across the distribution from second to ninth decile groups if VAT is included, but as mildly progressive before it is included. As the data sources underlying EUROMOD do not include data on expenditure alongside those for income, the estimates of the impact of VAT changes are imported from other sources.

those in the top fifth. By implication, adding in the effects of cuts in public services where these have been made would – unless they were strongly targeted by income (see below) – show a more regressive picture than the kinds of analysis shown above.

To compare across-the-board changes in public spending or taxation as a whole requires data on who is affected by both, as well as what can be uncertain assumptions about their incidence. For instance, higher employer social insurance contributions could potentially be reflected either in lower gross wages or in reduced net revenues for employers. Equally, spending cuts affecting particular areas could depress local house prices and so be capitalised in lower asset values.

In the UK the Office for National Statistics makes annual estimates of the effects of the bulk of social spending and for taxes that can be attributed to households.²² Using these one can contrast the distributional effects of on the one hand equal percentage cuts in all social benefits and services (in cash and kind) and on the other equi-proportional increases in taxes. Using data for 2008-09, every £1,000 raised per household would be equivalent to 3.5 per cent of disposable household income. If this were raised through an increase in all taxes, this would represent 3.4 per cent of the income of the poorest fifth of households, and 3.7 per cent of the income of the richest fifth. The impact, on ONS's incidence assumptions, would therefore be roughly proportional.²³ But if the same amount was raised through balanced cuts in public social spending, the loss would be equivalent to 11.9 per cent of disposable income for the poorest fifth, and only 0.9 per cent of income for the richest fifth.²⁴

4.1.4 Specific options for fiscal consolidation

This section looks in a little more detail at four specific elements of fiscal consolidation, using evidence from the UK case to argue that careful attention needs to be given to distributional and related issues, if a requirement of social equity is taken seriously.

(a) Broadening of the VAT base

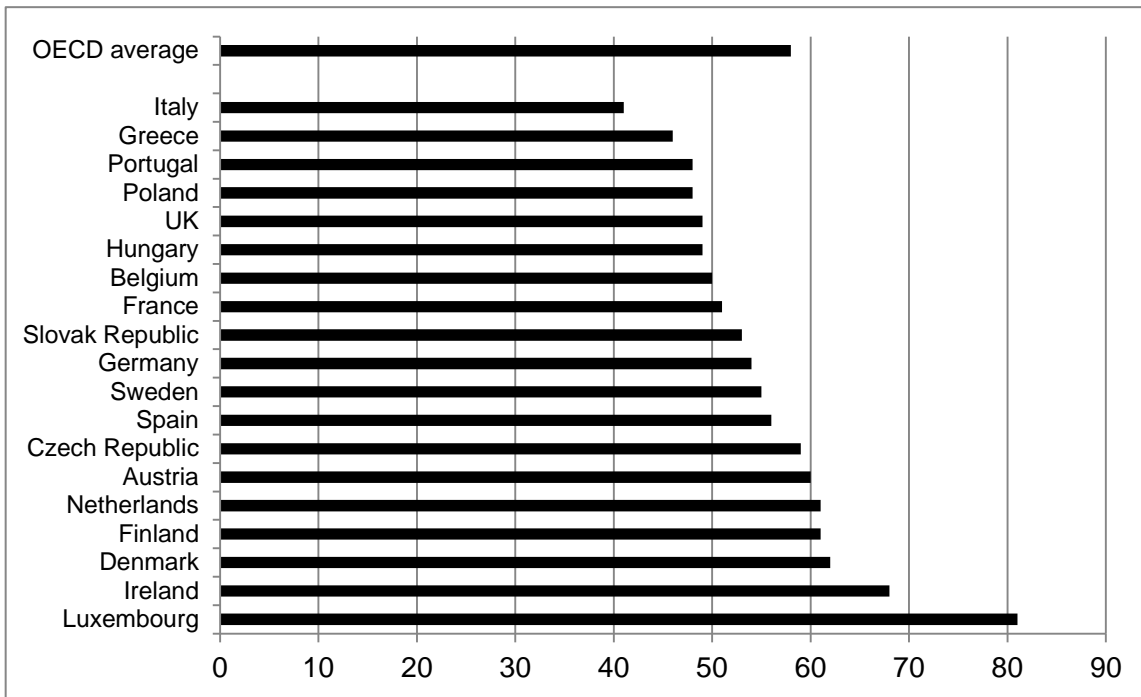
While policy-makers in general try to avoid visible increases in tax rates, increased revenue can also be gathered through widening the base of particular taxes. This is clearly the case in many countries as far as VAT is concerned, as Figure 3 shows. This presents analysis carried out for the Mirrlees Review of the actual yield of VAT in various OECD countries by comparison with what could be raised if the VAT base covered all consumption at the country's standard rate. In all of them this yield falls short as a result of explicit exemption or zero-rating, reduced rates for particular forms of consumption, or the non-inclusion of some less visible forms of consumption from the base. In six of the countries, including the UK, the actual yield of VAT was less than half of the theoretical uniform potential yield.

²² See, for example, Barnard (2010), which sets out the particular assumptions made about the incidence of cash benefits, direct and indirect taxes and public services. The latter include education, health care, and certain housing subsidies.

²³ Note, though that this is only the case because of the assumption that all taxes, direct as well as indirect, are raised in proportion. Within the UK system it is only income tax and social insurance systems that emerge as progressive. Other elements are regressive, if not balanced by these.

²⁴ Author's calculations based on Barnard (2010).

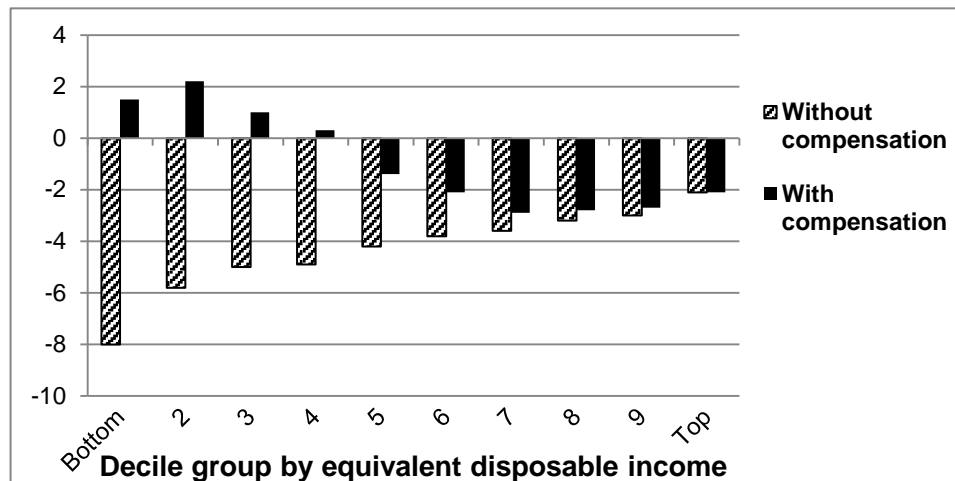
Figure 3: VAT revenue as percentage of potential yield from all consumption at standard rate, 2005



Source: Crawford, Keen and Smith (2010), table 4.2. Figure shows C-efficiency – VAT revenue divided by standard VAT rate times final consumption expenditure (minus VAT).

For a government wanting to avoid tax rate increases, base broadening could therefore be attractive. However, unless compensated for in some way, this would – in the UK, at least – be regressive, as exemptions and reduced rates (for items such as food or domestic fuel) may be a larger share of the consumption of the basket for poorer than richer households. As Figure 4 shows, if there were no compensation, VAT broadening would cost the poorest tenth of households the equivalent of 8 per cent of their disposable incomes, falling to 2 per cent for the richest households. However, the revenue from this could be used to compensate poorer households. The second set of bars shows what the distributional pattern would be if much of the revenue was used to increase means-tested social assistance benefits and tax credits by 15 per cent. On average the bottom three tenths of the income distribution would be net gainers from a package of this kind. However, within even the bottom groups there will still be some losers – reflecting lack of take up of means-tested benefits and tax credits (see Figure 6 below for a related example).

Figure 4: VAT broadening in the UK with and without compensation



Source: Crawford, Keen and Smith (2010), figures 4.1 and 4.2. Figures based on unifying VAT at 17.5% in 2005-06. Compensation is 15% rise in means-tested social assistance and tax credits.

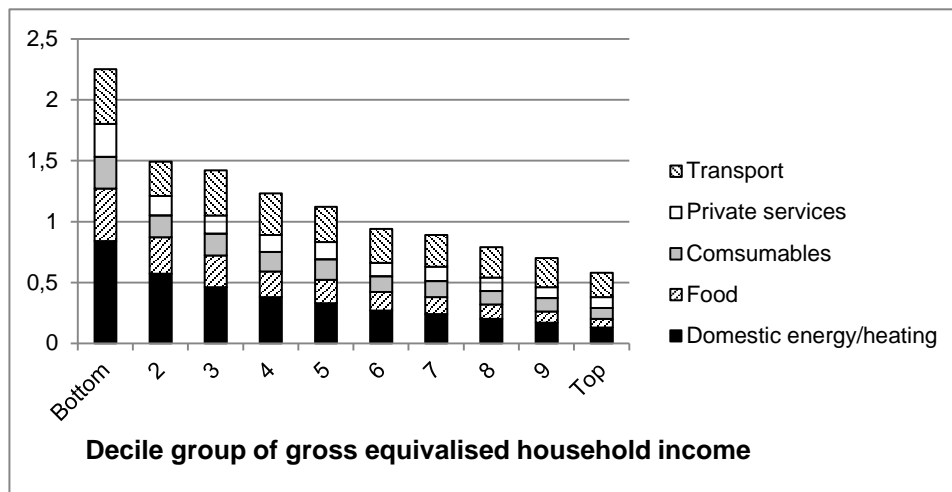
Base broadening could in theory therefore be carried out while not affecting the overall progressivity of the tax and transfer system. But there are three issues when considering this as part of fiscal consolidation:

- First, the compensation needed from offsetting changes to protect low-income households can be considerable. Indeed in the final recommendations of the Mirrlees Review (2012) itself, *all* of the increased revenue is spent on a package of increases to tax allowances and thresholds, tax credits, a cut on the main income tax rate, other means-tested benefits, state pensions, and child allowances. But in the context of fiscal consolidation, the aim is revenue-raising, so by definition what would be available for compensation would be much more limited, leaving a larger proportion of low-income households exposed to losses.
- Second, while the aim of base-broadening is increased efficiency through achieving a more neutral tax system, some forms of targeted compensation will themselves have an efficiency cost. This is particularly the case where means-tested benefits are made more generous. In countries such as the UK where means-testing is already extensive, this could mean exposing more households to the very high effective marginal tax rates that can emerge from the combination of overlapping means tests and direct taxes (the 'poverty trap').
- Third, there must be some doubts as to whether such compensation measures would, in fact, be continued in the long-run. Their rationale would be an increase in the cost of living measured specifically for low-income households as a result of higher indirect taxes. But in the long-run it is likely that the overall generosity of such benefits would be judged politically in real terms using a general price index or in relation to average incomes. In these terms, the one-off increase might eventually be eroded as anomalous. Of course, this would boost the long-run revenue raising from base-broadening, but by the same token the regressivity implicit in it would re-emerge.

(b) Carbon taxes

A second area where there are efficiency reasons of a different kind for increases in taxation (or equivalent charges) is environmental taxation, specifically increasing the cost of Carbon emissions. Here higher taxes could both raise revenue and correct an externality – indeed the greatest ever economic externality, in the assessment of the 2006 Stern Review. The downside is again distribution and hence equity. Figure 5 shows the underlying problem. This presents greenhouse gas emissions of all kinds (as kg of CO₂-equivalent) resulting from the consumption of UK households, taking account of the emissions embodied in imported goods, shown per pound of income of each income group. Total emissions of richer households are, of course, greater than those of poorer households, because they consume more. But the carbon-intensity of consumption of poorer households, weighted to items such as domestic fuel, is much greater – more than 2 kg of CO₂e per £ of income for the poorest tenth, compared to only just over 0.5kg for the richest tenth.

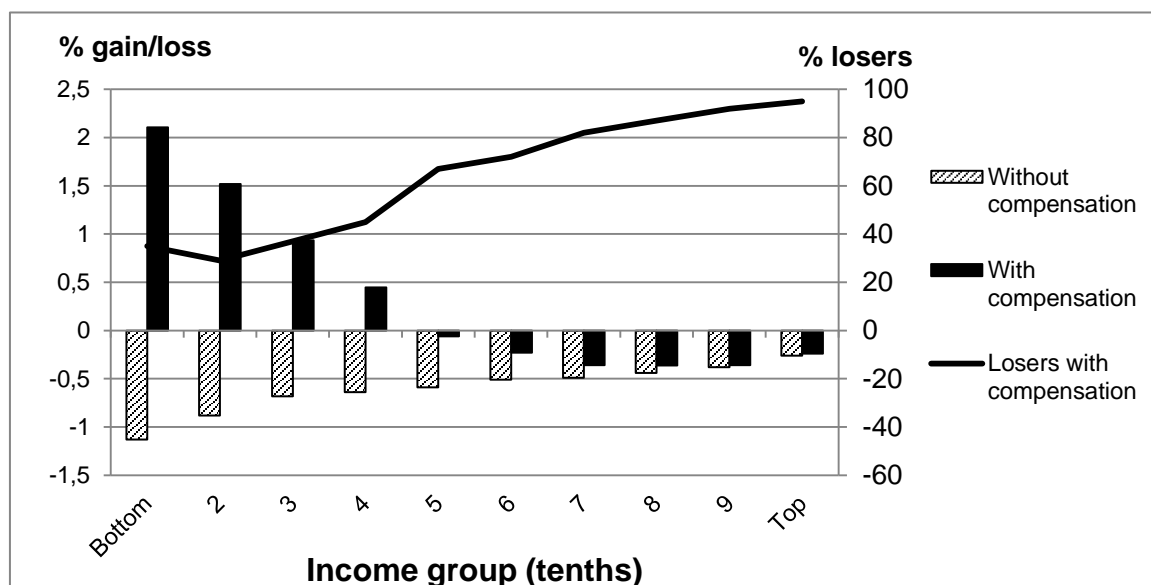
Figure 5: Greenhouse gas emissions (kg CO₂e) per £ of household income (UK, 2006)



Source: Gough et al. (2011), figure 8. Includes indirect emissions (e.g. from imported goods).

By implication, a Carbon tax, even if broadly based, and so catching all kinds of consumption, not just the easier targets such as domestic fuel or transport, will be regressive. Again, of course, from a measure that raises revenue, some of that revenue can be used to try to compensate losers and to offset the regressivity. Figure 6 shows an example of this kind of package, and how its overall regressive effect could be compensated. In this case, a Carbon tax of £30 (€35) per tonne of CO₂ is imposed on domestic fuel. The effects of this are shown both without compensation and in the case where *all* of the revenue gained is used to finance a package of increases in means-tested benefits and tax credits.

Figure 6: Impact of Carbon price (£30/tonne of CO₂) on domestic fuel (UK, 2008-09)



Source: Hills (2009), table 15.6, based on Dresner and Ekins (2006). Compensation uses all revenue raised to increase means-tested benefits and tax credits.

This sort of analysis again suggests some equity problems with this kind of measure, unless there are carefully designed offsetting measures.²⁵ In this example, a clearly progressive overall effect can be achieved. However, note that even where *all* of the revenue is used for this kind of compensation through transfers, there are still significant numbers of low-income losers, as shown by the solid line in the figure (against the right hand scale). More than a quarter of those in the bottom three income groups would still be losers. If the increase in the cost of carbon was intended to raise net revenue – as it would be if implemented as part of fiscal consolidation, the proportion of low-income households that would be losers would inevitably be higher. In UK terminology, the problem of ‘fuel poverty’ would be exacerbated.

This problem – that a package can be made progressive overall, but still have low-income losers – reflects not just problems with take-up of means-tested benefits, but also variations in fuel consumption *within* income groups, much of this stemming from the poor energy efficiency of many UK homes, including those occupied by low-income households. To avoid making the problems of some of the most vulnerable households worse, a corollary of measures that increase the cost of Carbon is not just some form of compensation through short-term income improvement, but also direct action to improve energy efficiency of the housing stock. This is likely to be good value for money in cost-benefit terms,²⁶ but it again implies that significant amounts of revenue raised from increasing the cost of Carbon would need to be spent in this way, but this further limits how much it can contribute to fiscal adjustment, if social equity is to be protected.

²⁵ See European Commission (2012), box 5.5, for discussion of this issue across a wider range of countries.

²⁶ See Hills (2012) for a detailed discussion.

(c) *Capital and related taxes*

A third area where there is a strong case for broadening the tax base as a whole is the structure for taxing wealth and income from it.²⁷ Direct taxes are often focussed on income, and within that on earned income in particular. But wealth offers an additional component of personal economic resources, which on horizontal as well as vertical equity grounds should be captured within the overall tax base. In recent decades personal wealth has become far more important in relation to personal incomes in some countries such as France and the UK. At the same time, wealth is more unequally distributed than income, making wealth taxes attractive in distributional terms. As far as economic efficiency is concerned, wealth taxes of various kinds offer opportunities to ‘tax the fixed factor’ and so minimise economic distortions, such as through taxing unimproved land values or inheritances. Greater taxation of wealth therefore offers revenue-raising, economic efficiency, and social equity advantages.

In fact, however, the relative contribution of wealth taxes has been diminishing. In the UK case, for instance, capital related taxes (inheritance, capital gains and stamp duties on transfers) fell from 2.0 per cent of GDP in 1948 to 1.1 per cent of GDP in 2010.²⁸ This presents a paradox, with the explanations suggesting political and other barriers to moving in what appears to be the logical direction:

- Crucially, both the stock of wealth and many of the ways in which it gives its owners a return – such as capital gains or the imputed rent of owner-occupiers – do not generate a cash flow which can easily be intercepted by the authorities before people receive them. At the same time, the invisibility of some of these flows creates a public acceptability barrier.
- Some of the ways of avoiding taxing implicit flows – such as delaying capital gains tax until realisation or property taxes until death – can create inefficient ‘lock-in’ effects, as well as reducing cash flow (and usually net present value) to the state.
- A particular barrier is presented by ‘asset rich/income poor’ households if capital taxes are run separately from other direct taxes, rather than there being some kind of integrated assessment of taxable capacity which takes account of both.
- For taxes on the stock of wealth or property, revaluation issues arise. If revaluation is only periodic, relative changes can be large, creating significant losers as well as gainers; at the same time, using out of date valuations is inequitable. But frequent revaluations are both expensive and can be intrusive. This creates a political vicious circle, where revaluations are avoided because of the scale of change they would create for some, but the tax base becomes less and less related to reality.
- Many forms of saving benefit from favourable tax treatment, but there can be technical problems in assessing exactly what someone’s gain in economic resources is – for instance, when the present value of future defined pension rights increases as a result of improvements in life expectancy, or because of a fall in expected long-run returns elsewhere in the market.

²⁷ See Thomas Piketty’s contribution to this collection.

²⁸ See Hills, *et al.* (2013), chapters 8 and 9, for more detailed discussion.

- Public views may not match those implicit in economic assessments of what are equivalent sets of resources – for instance, the pejorative branding of inheritance taxes as ‘death taxes’²⁹ or as double taxation on income that (may have been) already taxed.

Such problems suggest that what may seem logical ways of extending the tax base in ways that are both economically efficient and socially equitable may in fact be problematic in political and administrative terms. The very inequality of wealth holdings in itself creates a powerful lobby with an interest in accentuating such difficulties.

(d) Progressive spending cuts?

Faced with the regressive impacts of cuts to many forms of public spending discussed in Section 3, one solution is to try to concentrate cuts in transfers or in public services only on those with higher incomes. This might allow fiscal adjustment without violating some of the equity criteria laid out above, and without increases in marginal tax rates that governments want to avoid.

But doing so is likely also to affect economic incentives: introducing or strengthening means-tests will increase the effective marginal tax rate on those affected by them. If designed poorly this may affect the rates that are already highest and most likely to create problems. As a case study example of this general problem, a recent UK example has been the unintended side-effects of a reform to university financing in England. This has involved a trebling in fees for most universities (from £3,000 to £9,000 or €10,000 per year). The logic of this reform is that most students will have above average earnings later in life. The fees are not collected up front, but only as a percentage (9 per cent) of earnings above a threshold. This in itself creates a later marginal tax rate (for many students, the ‘debt’ will in fact, never be repaid if their lifetime earnings are not particularly high).

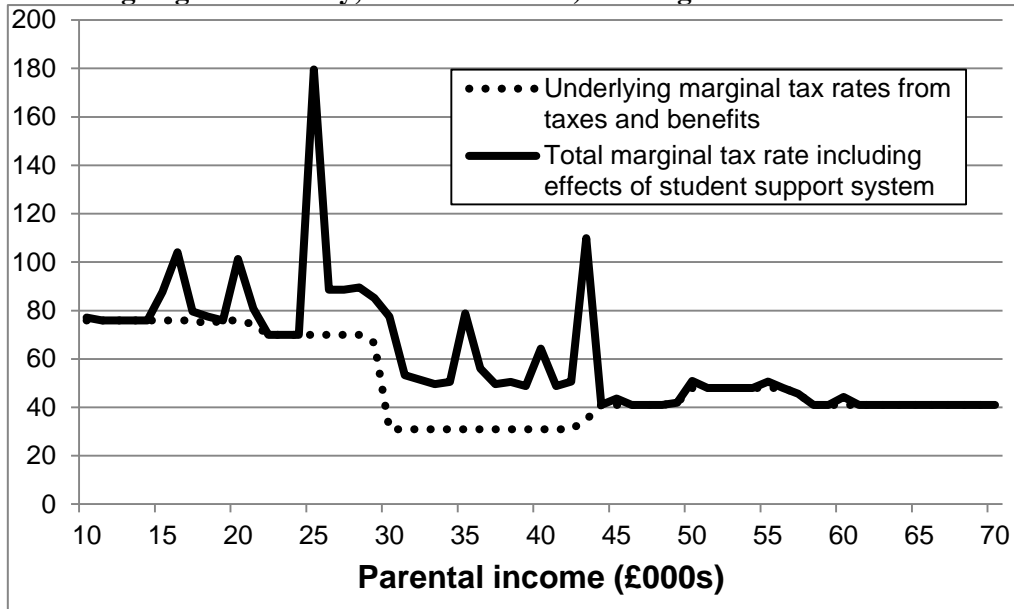
But social mobility considerations have also led to concern that prospective students from low-income backgrounds – with less information about potential benefits from higher education – may be put off applying for it by the prospect of a large ‘debt’ on leaving university. The government already runs a system of living cost grants for students with lower-income parents and has now encouraged universities to design their own systems of means-tested bursaries and fee reductions which depend on recent parental income. The result of this can be chaotic, and has created some very large (retrospective) effective marginal tax rates, if the situation of parents and children is considered together.³⁰ Figure 7 shows the scale of this on average across 27 of the larger or more prestigious universities. The dashed line shows the effective marginal tax rates that a two-child one earner family would already have faced (in the year that is used for assessing parental income) from the direct tax and tax credit system. The solid line then adds in the effects of higher parental income on the means-tested bursaries and fee reductions that a student would be entitled to. The marginal rates shown are based on relatively large – £1,000 – income changes (to avoid even more extreme ‘cliff edge’ effects at particular thresholds). Even so, there are income ranges where the combined – retrospective – rates exceed 100 per cent, and a very wide range where they

²⁹ Graetz and Shapiro (2005).

³⁰ See Hills and Richards (2012) for detailed discussion. This analysis treats fee reductions and bursaries as equivalent, although for some students their long run value may differ for technical reasons.

exceed 50 per cent. In the most extreme case – where the bursaries are most generous – the combined effect is a 99 per cent marginal rate if the family’s earnings had changed from 70 per cent to 250 per cent of national median earnings.

Figure 7: Combined effective marginal tax rate (%) per £1,000 (single earner couples with one child going to university, one still at home): Average for UK 27 universities



Source: Hills and Richards (2012), figure 8. Parental income is essentially gross earnings in an earlier year, with some minor adjustments. Figure relates to students entering university in Autumn 2012.

This is a parochial example, both geographically and in terms of sector affected. But it illustrates a more general point: introducing further means-tests within an already heavily means-tested system – as in the UK – runs the danger of pushing effective marginal tax rates for particular sub-groups of the population to levels where they are more likely to affect behaviour. If poorly designed – as is more likely, if responsibility for them is decentralised – they may create anomalies in treatment that are seen as horizontally inequitable between people with fairly similar circumstances.

4.1.5 Conclusions

‘Social equity’ will have varied meanings for different observers, so the benchmark applied should be specified before assessing the impact of particular measures. However, most conceptions will be incompatible with packages of fiscal adjustment that are regressive, and some will imply that they should be progressive. In general, across-the-board cuts in public spending will be regressive, although cuts in particular areas may not be, depending on the circumstances of a particular country – with, for instance, the distributional effects of reductions in the real value of public pensions varying between Member States. By contrast, general tax increases are more likely to be distributionally neutral, although this will depend on the progressivity of direct taxes offsetting the regressivity of most indirect taxes.

Member States have a range of instruments at their disposal for improving their fiscal balance. Some of these have efficiency, as well as revenue-raising advantages. However, the examples looked at in more detail in this paper suggest the need for careful assessment of

their equity effects. Most Member States have scope for broadening the VAT base, for instance, but doing so is likely to be regressive, unless much of the revenue is used for compensation measures – and even then avoiding some low-income losses may be difficult. This is also true of environmental taxes, such as measures that increase the cost of Carbon, which are regressive unless compensated for in other ways (which may include direct action on energy efficiency, not just income transfers). There is a strong equity and efficiency case for more use of taxes on wealth and income from it, but a series of practical and political barriers to imposing them. The adverse distributional effects of general cuts in public spending can be moderated through making benefits and services more targeted or selective, but doing so can create or exacerbate efficiency problems that may be far worse than those of the increase in general tax rates that governments are trying to avoid.

Surveying the issues and the evidence, it is hard to avoid the conclusion that safeguarding social equity during fiscal consolidation is likely to require the use of *all* available tax bases and rates of tax, rather than there being a choice between them, and that doing so is likely to be more equitable than most forms of spending cut. But even the most attractive options for extending the tax base bring with them a series of issues that can be challenging, to say the least.

References

- Avram, S., Figari, F., Leventi, C., Levy, H., Navicke, J., Matsaganis, M., Militaru, E., Paulus, A., Rastrigina, O., and Sutherland, H. (2012), *The Distributional Effects of Fiscal Consolidation in Nine EU Countries, Social Situation Observatory Income Distributions and Living Conditions*, Research Note 01/2012, Brussels: European Commission.
- Barnard, A. (2010), *The effects of taxes and benefits on household income 2008/09*, London: Office for National Statistics.
- Crawford, I., Keen, M. and Smith (2010), *Value Added Tax and excises*, in J. Mirrlees (chair), *Dimensions of Tax Design*, Oxford: Oxford University Press.
- Dresner, S. and Ekins, P. (2006), *Economic instruments to improve UK home energy efficiency without negative social impacts*, *Fiscal Studies*, 27, 1, 47-74.
- European Commission (2012), *Tax reforms in EU Member States in 2012: Tax policy changes for economic growth and fiscal sustainability*, *European Economy 6/12*, Brussels: European Commission.
- Gough, I., Abdallah, S., Johnson, V., Ryan-Collins, J. and Smith, C. (2011), *The distribution of total greenhouse gas emissions by households in the UK, and some implications for social policy*, CASE paper 152, London: London School of Economics.
- Graetz, M.J. and Shapiro, I. (2005), *Death by a Thousand Cuts: The Fight over taxing inherited wealth*, Princeton N.J.: Princeton University Press.
- Hills, J. (2009), 'Future pressures: intergenerational links, wealth, demography and sustainability', in J. Hills, T. Sefton and K. Stewart (eds.), *Towards a More Equal Society: Poverty, inequality and policy since 1997*, Bristol: The Policy Press.
- Hills, J. (2012), *Getting the Measure of Fuel Poverty: Final Report of the Fuel Poverty Review*, CASE report 72, London: Department of Energy and Climate Change and London School of Economics.

Hills, J., Bastagli, F., Cowell, F., Glennerster, H., Karagiannaki, E. and McKnight, A. (2013), *Wealth in the UK: Distribution, accumulation and policy*, Oxford: Oxford University Press.

Hills, J. and Richards, B. (2012), Localisation and the means test: A case study of support for English students from Autumn 2012, CASE paper 160, London: London School of Economics.

Mirrlees, J., Adam, S., Besley, T., Blundell, R., Bond, S., Chote, R., Gammie, M., Johnson, P., Myles, G., and Poterba, J. (2011), *Tax by Design: The Mirrlees Review*, Oxford: Oxford University Press.

Stern, N. (2006), *The Stern Review of the Economics of Climate Change*, Cambridge: Cambridge University Press.

Verbist, G., Förster, M. and Vaalavuo, M. (2012), *The impact of publicly provided services on the distribution of resources: Review of new results and methods*, OECD Social, Employment and Migration Working Papers No. 130, Paris: OECD.