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# Dimensions of Tax Design

THE MIRRLEES REVIEW



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# DIMENSIONS OF TAX DESIGN

*The Mirrlees Review*

*Chair*

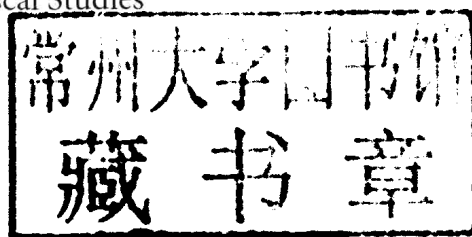
SIR JAMES MIRRLEES

*Editors*

Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond,  
Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles,  
and James Poterba

*for the*

Institute for Fiscal Studies



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## Preface

Thirty years ago the Institute for Fiscal Studies published a seminal review of the UK tax system, the fruits of a commission chaired by the Nobel Laureate Professor James Meade. Explaining the motivation for the review, Dick Taverne, then Director of the IFS, lamented: 'For too long, tax reforms have been approached *ad hoc*, without regard to their effects on the evolution of the tax structure as a whole. As a result many parts of the system seem to lack a rational base. Conflicting objectives are pursued at random; and even particular objectives are pursued in contradictory ways.'

Unfortunately, this critique still holds true today. In some important respects the tax system has evolved in the way that the Meade Report recommended, but it remains the product of often incoherent piecemeal changes rather than strategic design. The tax system has also struggled to adapt to profound changes in the economic, social, and institutional environment in which it operates. And tax design has not benefited as much as it could from advances in theoretical and empirical understanding of the way features of the system influence people's behaviour.

For all of these reasons, we felt that the time was ripe once again to ask an expert commission to take a hard look at the tax system: to try to identify the characteristics that would make for a good tax system in an open economy in the twenty-first century; and to suggest how the British tax system in particular might be reformed to move closer to that ideal. This volume and the companion volume of the Review's final conclusions, *Tax by Design*, are the result.

In thinking of a worthy successor to James Meade as chair of the Review, there was one obvious choice: the Nobel Laureate and founder of the modern theory of optimal taxation, Professor Sir James Mirrlees, of Cambridge University and the Chinese University of Hong Kong. We are very grateful to him and to the other directors of the Review's work: Professor Tim Besley of the Bank of England and the London School of Economics; Professor Richard Blundell of the IFS and University College London; Malcolm Gammie QC of One Essex Court and the IFS Tax Law Review Committee; and Professor James Poterba, President of the National Bureau of Economic Research in the US. They have been joined in editing this volume and writing *Tax By Design* by Stuart Adam of the IFS; Professor Stephen Bond of Oxford University; Paul



Johnson of the IFS and Frontier Economics; Professor Gareth Myles of Exeter University; and me.

The Meade Report confined its attention largely to direct taxes in the UK, whereas we wanted the Mirrlees Review to examine the tax system more broadly and from a global perspective as well as a British one. To provide a foundation upon which our final conclusions could be built, we therefore began by asking small teams of experts from the IFS and around the world to address a number of key themes in tax design, with equally distinguished experts to comment on their work. These authors and commentators were not constrained by the views of the core review team, and neither was the core review team constrained to agree with all or any of their conclusions. We are enormously grateful to them all for their analyses, which are of considerable interest and value in their own right, above and beyond any inspiration they have provided for the final report. They are published in full in this volume, while the conclusions of the core team are to be found in *Tax by Design*.

From the outset, the intention of the review was to take a 'big picture' view of tax design, asking what society wants the tax system to achieve and how best it might be structured to accomplish that. In the final report we have tried both to set out an overarching vision for the tax system and to suggest some desirable incremental reforms. The starting point has been to look at the economics of the tax system, although we have received a great deal of useful input from tax lawyers, advisers, and practitioners, as well as those currently and in the past involved with the practicalities of tax design and implementation. Inevitably, some of those who spend most of their time thinking about tax design and implementation from these perspectives might have identified different priorities and have taken different approaches if they were to have undertaken this Review themselves. Economists cannot claim to have all the answers to good tax design—and some of our answers will pose new questions. But thinking hard about the economics of the tax system is essential if it is to work effectively.

In addition to administrative practicality and the difficulty of turning economic intentions into robust legislative language, proposals for tax reform are of course constrained by politics—not least the unfortunate observation that those who lose from tax reforms tend to be vengeful while those who gain from them tend to be ungrateful. But there is no point in a Review of this sort confining itself only to recommendations that we could confidently expect to receive immediate and enthusiastic support across the political spectrum—it would be a very short report if it did. In the final report we have tried to take explicit account of the political economy of tax reform in setting out a possible path to a better system, but there will always be a tension to

some extent between what is economically desirable and what is politically practical.

One of the most important and well-known lessons from economics is that there is no such thing as a free lunch. We must therefore express our heartfelt thanks to those who have paid for this one: the Nuffield Foundation and the Economic and Social Research Council. Both have long been much valued supporters of IFS and we hope that they will think their investment in this project worthwhile. It just remains for me to echo Dick Taverne's words on the launch of the Meade Report: 'We hope and believe that this Report will be a rich quarry for tax reformers and a valuable reference point for students of taxation for decades to come.'

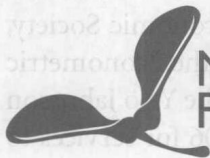
Robert Chote

Director

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## About the Editors

**Sir James Mirrlees** is a Fellow of Trinity College and Emeritus Professor of Political Economy at the University of Cambridge, Laureate Professor at the University of Melbourne, and Distinguished Professor-at-large at the Chinese University of Hong Kong. He is a Fellow of the British Academy and past President of the Econometric Society, the Royal Economic Society, and the European Economic Association, and has been awarded numerous honorary degrees. Working primarily on the economics of incentives and asymmetric information, he founded the modern theory of optimal taxation, and was the joint winner of the Nobel Prize for Economics in 1996. He was knighted in 1997 for contributions to economic science.

**Stuart Adam** is a Senior Research Economist at the IFS. His research focuses on the design of the tax and benefit system, and he has written about many aspects of UK tax and benefit policy, including income tax and National Insurance, capital gains tax, tax credits, incapacity benefit, work incentives and redistribution, support for families with children, and local government finance.

**Timothy Besley** is Kuwait Professor of Economics and Political Science at the LSE, a Research Fellow at the IFS, and from 2006 to 2009 an external member of the Bank of England Monetary Policy Committee. His work has been mainly in the fields of development economics, public economics, and political economy. He is a former co-editor of the *American Economic Review*, Fellow of the Econometric Society and of the British Academy, and is President-elect of the European Economic Association. He was a 2005 recipient of the Yrjö Jahnsson Prize.

**Richard Blundell** CBE is Research Director of the IFS, where he is also Director of the ESRC Centre for the Microeconomic Analysis of Public Policy. He holds the David Ricardo Chair of Political Economy at UCL. His research has been mainly in the fields of microeconometrics, household behaviour, and tax policy evaluation. He is a Fellow of the British Academy, honorary Fellow of the Institute of Actuaries, President-elect of the Royal Economic Society, past President of the European Economic Association and of the Econometric Society, and former co-editor of *Econometrica*. A winner of the Yrjö Jahnsson Prize and the Frisch Medal, he was awarded the CBE in 2006 for services to economics and social science.

**Stephen Bond** is a Senior Research Fellow at Nuffield College, Oxford, a programme director at the Oxford University Centre for Business Taxation, and a research fellow at the IFS. His main interests are in corporate tax policy and the effects of corporate taxation on the behaviour of firms. Other interests include empirical research on company investment and financial behaviour, and the development of econometric methods for the analysis of panel data.

**Robert Chote** was appointed Director of the IFS in October 2002. He was formerly an adviser and speechwriter to the First Deputy Managing Director of the IMF. He was Economics Editor of the *Financial Times* between 1995 and 1999, and previously served as Economics Correspondent of *The Independent* and a columnist on the *Independent on Sunday*, where he was named Young Financial Journalist of the Year by the Wincott Foundation. He is a governor of the National Institute of Economic and Social Research and a member of the Advisory Board of the UK Centre for the Measurement of Government Activity at the Office for National Statistics.

**Malcolm Gammie** CBE QC is a barrister at One Essex Court. He has been associated with the IFS for almost thirty years, and is currently Research Director of its Tax Law Review Committee. He was a senior tax partner at the City law firm of Linklaters until moving to the Bar in 1997, becoming a QC in 2002. He was named Tax Lawyer of the Year 2008 at the LexisNexis Taxation Awards. A past president of the Chartered Institute of Taxation, he teaches at universities in Australia, the Netherlands, and the UK. He has advised governments of several countries, the European Commission, and the OECD on tax policy issues and was awarded the CBE in 2005 for services to taxation policy.

**Paul Johnson** is a Research Fellow at the IFS and an associate of Frontier Economics. From 2004 to 2007 he was Director of the Public Services and Growth Directorate and Chief Microeconomist at HM Treasury, as well as Deputy Head of the Government Economic Service. He previously worked in senior posts at the Department for Education and Skills and the Financial Services Authority. Until 1998 he was a full-time researcher at the IFS, eventually taking on the roles of Deputy Director and Head of the Personal Sector Research Programme.

**Gareth Myles** is Professor of Economics at the University of Exeter and a research fellow at the IFS. He is a Fellow of the Royal Society of Arts and has been a Professorial Fellow at the Australian School of Taxation. He is a managing editor of *Fiscal Studies* and an associate editor of the *Journal of Public Economic Theory*. His main research areas are public economics,



labour economics, and microeconomics. His publications include numerous research papers on taxation with imperfect competition, international taxation, and public goods. He has also written the textbooks *Public Economics* (1995) and *Intermediate Public Economics* (2006).

James Poterba is Mitsui Professor of Economics at MIT, President of the National Bureau of Economic Research, and President of the National Tax Association. He is also a Fellow of the American Academy of Arts and Sciences and of the Econometric Society. His research focuses on how taxation affects the economic decisions of households and firms. He served as a member of the US President's bi-partisan Advisory Panel on Federal Tax Reform in 2005, and is a past editor of the *Journal of Public Economics*. He studied economics as an undergraduate at Harvard University, and received his doctorate in economics from the University of Oxford.

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## Taxation in the UK

Stuart Adam, James Browne, and Christopher Heady\*

Stuart Adam is a Senior Research Economist at the IFS. His research focuses on the design of the tax and benefit system, and he has written about many aspects of UK tax and benefit policy, including income tax and National Insurance, capital gains tax, tax credits, incapacity benefit, work incentives and redistribution, support for families with children, and local government finance.

James Browne is a Research Economist at the IFS. His research focuses on various aspects of the tax and benefit system. In particular, he has looked at the effect of various potential policy reforms on poverty rates among children and pensioners, the effects of welfare-to-work programmes, changes to the level of support for families with children over time, and the effect of tax and benefit changes on work incentives and the distribution of income.

Christopher Heady is Head of the Tax Policy and Statistics Division at the OECD. He has published widely on the economics of public policy, including tax policy issues in both developed and developing countries. He was previously Assistant Professor at Yale, Lecturer then Reader at UCL, and Professor of Applied Economics at the University of Bath. His books include *Poverty and Social Exclusion in Europe*, *Fiscal Management and Economic Reform in the People's Republic of China*, and *Tax Policy: Theory and Practice in OECD Countries*.

\* This chapter draws heavily on the IFS's *Survey of the UK Tax System* <<http://www.ifs.org.uk/bns/bn09.pdf>>, which is updated annually and was itself originally based on the UK chapter by A. Dilnot and G. Stears in K. Messere (ed.), *The Tax System in Industrialized Countries*, Oxford University Press, 1998. The authors thank Richard Blundell, Steve Bond, Mike Brewer, Michael Devereux, Carl Emmerson, Andrew Leicester, Cormac O'Dea, Jonathan Shaw, and Matthew Wakefield for comments, advice, and help with data and calculations. Any errors and omissions are the responsibility of the authors. Family Resources Survey data are produced by the Department for Work and Pensions and available from the UK Data Archive; Family Expenditure Survey and Expenditure and Food Survey data are collected by the Office for National Statistics and distributed by the Economic and Social Data Service. Crown copyright material is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland. None of these bodies bears any responsibility for the analysis or interpretation presented herein.



## EXECUTIVE SUMMARY

In autumn 2008 the UK government forecast that its total revenue in 2008–09 would be 37.3% of national income. This is a lower share than in 1978–79, reflecting a fall in non-tax receipts (such as surpluses of nationalized industries): taxes alone were forecast to raise 35.3% of GDP, a larger share than thirty years ago.

Most other developed countries have also seen a rise in tax as a share of GDP since 1978. In 2006 (the latest year for which comparative data are available) the share of national income taken in tax in the UK was around the average for developed countries: lower than most of the EU15 countries (such as France, Italy, and the Scandinavian countries), but higher than in most of the new EU countries of eastern Europe and higher than in the USA, Japan, and Australia.

Most of the key developments in UK taxation over the last thirty years have been very much in line with those seen internationally:

- The share of revenue provided by VAT has greatly increased, while the share provided by taxes on specific goods has fallen by a similar amount.
- Basic and higher rates of income tax have been cut, and the number of rates reduced.
- Income tax has moved towards taxing members of couples independently.
- Tax credits have brought support for low-income workers within the tax system.
- Statutory rates of corporation tax have been cut, and the tax base broadened by reducing the value of allowances for capital investment.
- Shareholder taxation has been reformed to give less credit for corporation tax already paid on profits.
- New environmental taxes have been introduced.

However, in some respects the UK is unusual:

- An unusually small share of UK tax revenue comes from social security (National Insurance) contributions, and an unusually large share comes from recurrent taxes on buildings (council tax and business rates).
- The UK applies a zero rate of VAT to many more goods than most other countries.
- The UK is unusual in having abolished tax relief for mortgage interest.

• Tax raising in the UK is exceptionally centralized, with only 5% of revenues raised locally; and it has become more centralized over time, notably with the move of business rates from local to central control.

The tax and benefit system as a whole redistributes significantly from rich to poor. But whether tax and benefit reforms have contributed to or counteracted the sharp increase in income inequality seen in the UK over the last thirty years is hard to determine definitively, in part because it depends on what is meant by 'reform'. The tax and benefit system in 2008 does more to reduce inequality than if the system of thirty years ago had remained in place with tax thresholds and (more importantly) benefit rates increased in line with inflation, but does less to reduce inequality than if the rates and thresholds of the 1978 system had kept pace with GDP per capita. Within this period, though, Labour's reforms have been clearly more progressive than the Conservatives': Labour's reforms since 1997 have had a similar effect on overall inequality as increasing benefit rates in line with GDP, while the Conservatives' reforms were roughly equivalent to increasing them in line with inflation.

On the other hand, reforms under the Conservatives did more to strengthen financial work incentives than those under Labour. The Conservatives' tax and benefit reforms unambiguously strengthened average incentives for people to be in work and for those in work to increase their earnings. Reforms since 1997, however, have had much less impact on incentives to be in work—on average, they are now slightly stronger than they would have been if Labour had increased the benefit rates they inherited in line with growth in the economy, and much the same as if they had increased benefit rates in line with inflation—and Labour's reforms have weakened average incentives for those in work to increase their earnings. All of these broad trends, however, hide substantial variations across the population.

The tax system influences the amount that people save and the form in which they do so. Owner-occupied housing and Individual Saving Accounts (ISAs) are not subject to personal income taxes; pensions are effectively subsidized by the provision of a 25% tax-free lump sum and by the exemption of employer pension contributions from National Insurance contributions (although deferral of tax from the point at which earnings are paid into a pension fund to the point at which they are withdrawn from the fund means that the attractiveness of saving in a pension depends a great deal on whether an individual's marginal tax rate is different at those two points). Pensions, ISAs, and housing cover the significant saving activity of the bulk of the population, but other forms of saving are discouraged by income tax and

capital gains tax—and to a markedly greater extent than the statutory tax rates might suggest, because no allowance is given for inflation. The decline of inflation from the very high rates prevalent thirty years ago has been a major factor reducing the extent to which the tax system biases the choice between different saving vehicles. Policy reforms have also reduced these distortions by reducing the highest income tax rates, introducing tax-free saving vehicles such as ISAs, and abolishing the subsidies offered through tax relief for life assurance and mortgage interest. The result of all this is that saving is now less likely to be heavily taxed, and less likely to be subsidized, than in the past.

Like different forms of personal saving, different forms of business investment are treated differently by the tax system. In the UK, as around the world, debt-financed investment is treated more favourably than equity-financed investment, and investment in plant and machinery is treated more favourably than investment in industrial buildings. Both of these distortions have been reduced since 1979.

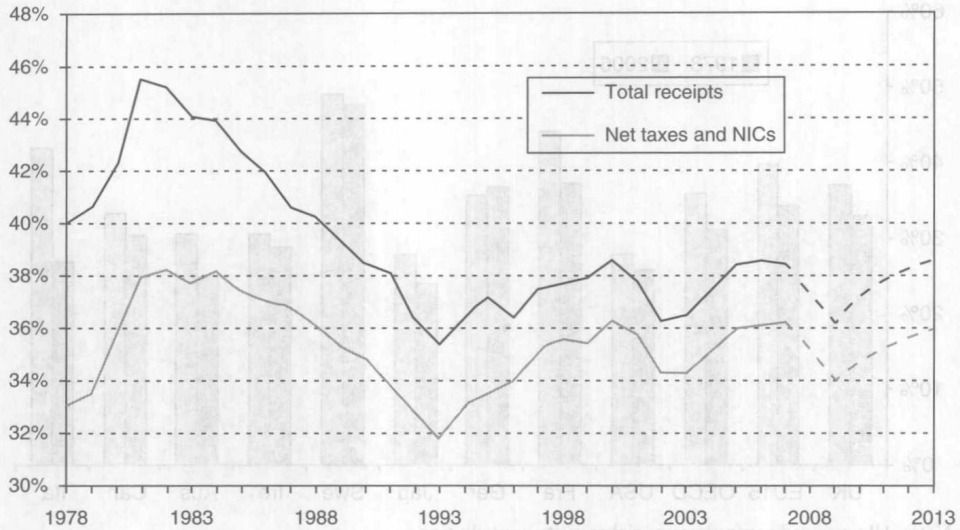
## 1.1. INTRODUCTION

This chapter provides a description and assessment of the UK tax system, placing it in historical, international, and theoretical contexts. We begin in Section 1.2 by outlining the evolution of the size and composition of tax revenues in the UK since 1978 and comparing this to developments in other OECD countries. Section 1.3 describes what has happened to the design of major taxes over the same period and compares this to worldwide trends in tax reform. The economic analysis of these developments is taken up in Section 1.4, which assesses their effects on the income distribution and incentives to work, save, and invest. Section 1.5 concludes with a summary of the main issues raised. An appendix describes each of the main taxes in 2008–09.

## 1.2. THE LEVEL AND COMPOSITION OF REVENUES

Total UK government receipts are forecast to be £545.5 billion in 2008–09, or 37.3% of UK GDP.<sup>1</sup> This is equivalent to roughly £10,900 for every

<sup>1</sup> All 2008–09 revenue figures in this chapter are 2008 Pre-Budget Report forecasts.



Notes: Years are fiscal years, so 2008 means 2008–09.

Sources: HM Treasury, Public Finances Databank (27 January 2009 version), <[http://www.hm-treasury.gov.uk/psf\\_statistics.htm](http://www.hm-treasury.gov.uk/psf_statistics.htm)>.

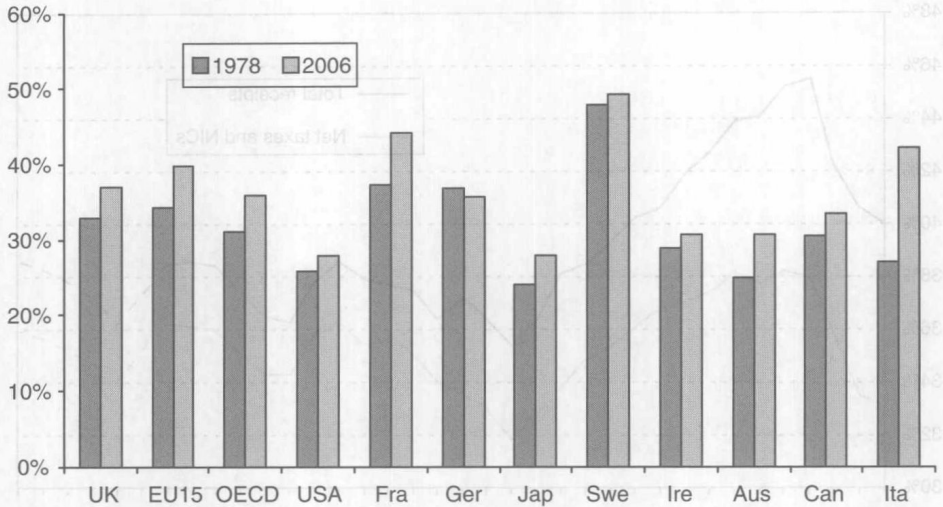
Figure 1.1. The tax burden, % of GDP

adult in the UK, or £8,900 per person. Not all of this comes from taxes (or National Insurance (social security) contributions): net taxes and National Insurance contributions are forecast to raise £516.6 billion in 2008–09, with the remainder provided by surpluses of public-sector industries, rent from state-owned properties, and so on.

Figure 1.1 shows the development of total government revenues and tax revenues since 1978–79. Receipts rose sharply as a proportion of GDP from 1978–79 to 1981–82, fell steadily from the early 1980s until the mid-1990s, but have risen again since then, with a dip during the current recession forecast to be only temporary. The share of non-tax revenues fell substantially over the 1980s and 1990s as many public-sector industries were privatized, so that, although total receipts are now slightly lower than in 1978–79 as share of GDP, tax revenues are higher.

Figure 1.2 places this increase in tax revenue in an international context. Between 1978 and 2006, most other OECD countries also experienced an increase in their tax-to-GDP ratios, and the UK's increase was smaller than most. In 1978 the UK's tax-to-GDP ratio was about two percentage points higher than the OECD (unweighted) average while in 2006 it was about one point higher. The share of national income taken in tax in the UK in 2006 was below the EU15 (unweighted) average, but higher than in most of the





Notes: All taxes and compulsory social security contributions.

Sources: OECD (2008a).

Figure 1.2. Tax revenues as a share of GDP

new EU countries of eastern Europe and higher than in the USA, Japan, and Australia.<sup>2</sup>

Table 1.1 shows the composition of UK government revenue. Income tax, National Insurance contributions, and VAT are easily the largest sources of revenue for the government, together accounting for almost two-thirds of total tax revenue. Figure 1.3 summarizes how the composition of tax revenue has changed over the last thirty years. The biggest change has been a doubling of the share of tax revenue provided by VAT, with a reduction of similar size in the share of other indirect taxes (mainly excise duties). This follows a worldwide trend of moving from taxes on specific goods to general consumption taxes. Corporation tax revenues are highly cyclical but have increased overall as a proportion of the total, as have revenues from other capital taxes (principally stamp duties). Reliance on personal income

<sup>2</sup> All international averages in this chapter are unweighted unless otherwise stated. The EU15 countries are members of the EU prior to the 2004 expansion, namely Austria (abbreviated as Aut), Belgium (Bel), Denmark (Den), Finland (Fin), France (Fra), Germany (Ger), Greece (Gre), Ireland (Ire), Italy (Ita), Luxembourg (Lux), the Netherlands (Neth), Portugal (Por), Spain (Spa), Sweden (Swe), and the UK. The OECD countries included vary over time because OECD membership changed and figures are not always available for all countries. Other country abbreviations used are for Australia (Aus), New Zealand (NZ), Japan (Jap), the United States of America (USA), and Canada (Can).