Empirical Evidence and Tax Reform: Lessons from the Mirrlees Review

Lecture 3: Consumption and Savings Taxation

Munich Lectures in Economics 2010

*CES*ifo

November 18th 2010

Richard Blundell

University College London and Institute for Fiscal Studies

Institute for Fiscal Studies

Key Margins of Adjustment

- Consumer demand responses
  - responses to differential taxation of across commodities
- Savings-pension portfolio mix
  - ‘Life-cycle’ accumulation of savings and pension contributions
- Forms of remuneration
  - CGT reforms and the non-alignment with labour income rates
- Organisational form
  - UK chart on incorporations and tax reforms
- Draw on evidence from the *Tax by Design* – 20 chapters by the editors – and *Dimensions of Tax Design* (MR1)
  - all free on the web!

Dimensions of Tax Design: commissioned chapters and expert commentaries (1)

- The base for direct taxation

  James Banks and Peter Diamond; Commentators: Robert Hall; John Kay; Pierre Pestieau

- Means testing and tax rates on earnings

  Mike Brewer, Emmanuel Saez and Andrew Shephard; Commentators: Hilary Hoynes; Guy Laroque; Robert Moffitt

- Value added tax and excises

  Ian Crawford, Michael Keen and Stephen Smith; Commentators: Richard Bird; Ian Dickson/David White; Jon Gruber

- Environmental taxation

  Don Fullerton, Andrew Leicester and Stephen Smith; Commentators: Lawrence Goulder; Agnar Sandmo

- Taxation of wealth and wealth transfers

  Robin Boadway, Emma Chamberlain and Carl Emmerson; Commentators: Helmuth Cremer; Thomas Piketty; Martin Weale

Dimensions of Tax Design: commissioned chapters and expert commentaries (2)

- International capital taxation

  Rachel Griffith, James Hines and Peter Birch Sørensen; Commentators: Julian Alworth; Roger Gordon and Jerry Hausman
- Taxing corporate income

  Alan Auerbach, Mike Devereux and Helen Simpson; Commentators: Harry Huizinga; Jack Mintz
- Taxation of small businesses

  Claire Crawford and Judith Freedman
- The effect of taxes on consumption and saving

  Orazio Attanasio and Matthew Wakefield
- Administration and compliance, *Jonathan Shaw, Joel Slemrod and John Whiting; Commentators: John Hasseldine; Anne Redston; Richard Highfield*
- Political economy of tax reform, *James Alt, Ian Preston and Luke Sibieta; Commentator: Guido Tabellini*

Institute for Fiscal Studies

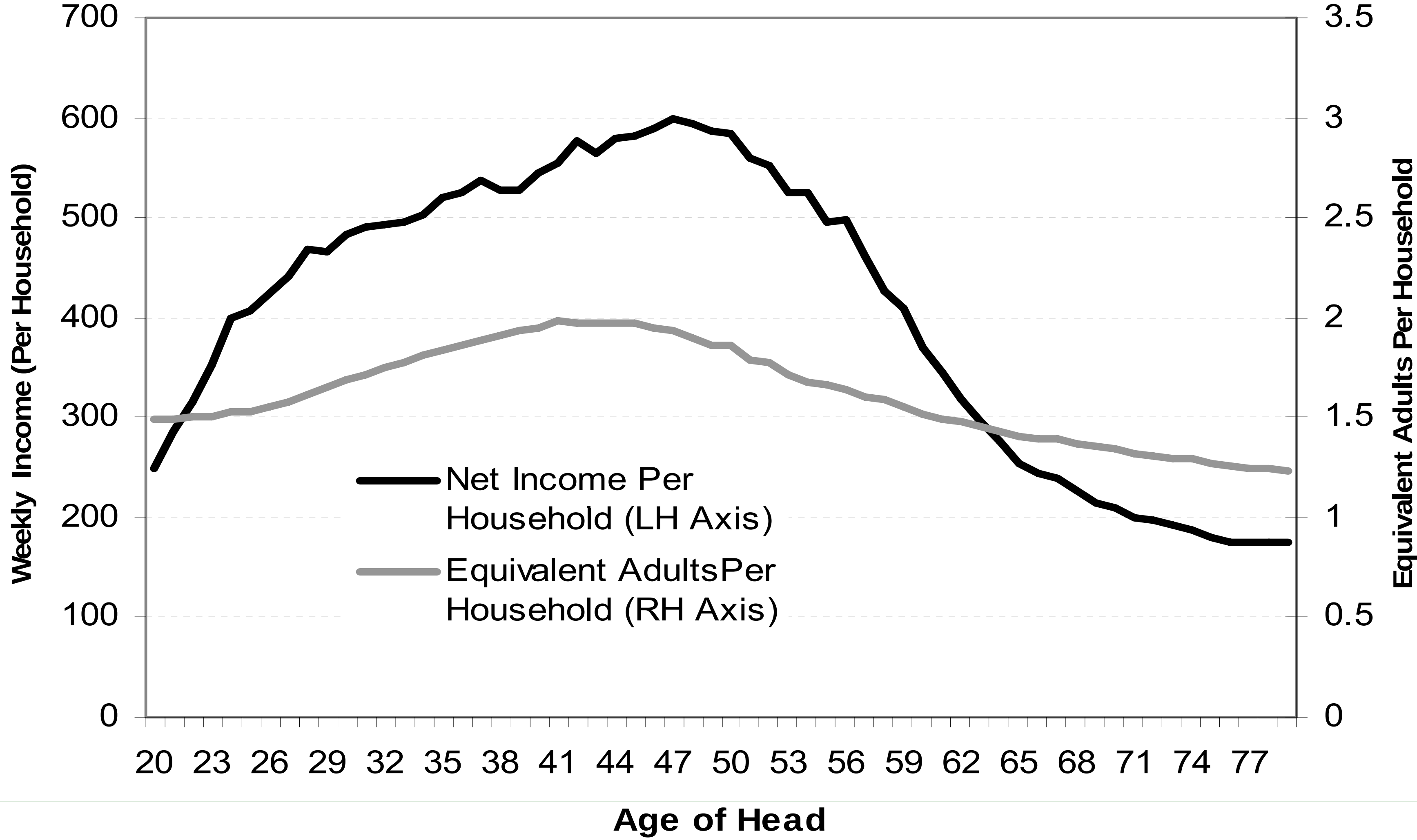
Consumer demand behaviour

- Three key empirical observations:
- Non-separabilities with labour supply are important
  - but mainly for childcare and work related expenditures
  - updated evidence in the Review
- Price elasticities differ with total expenditure/wealth
  - responses and welfare impact differs across the distribution
  - new evidence shows compensation and welfare losses vary across the distribution
- Issues around salience of indirect taxes
  - Chetty et al (*AER*)

Savings and Pensions

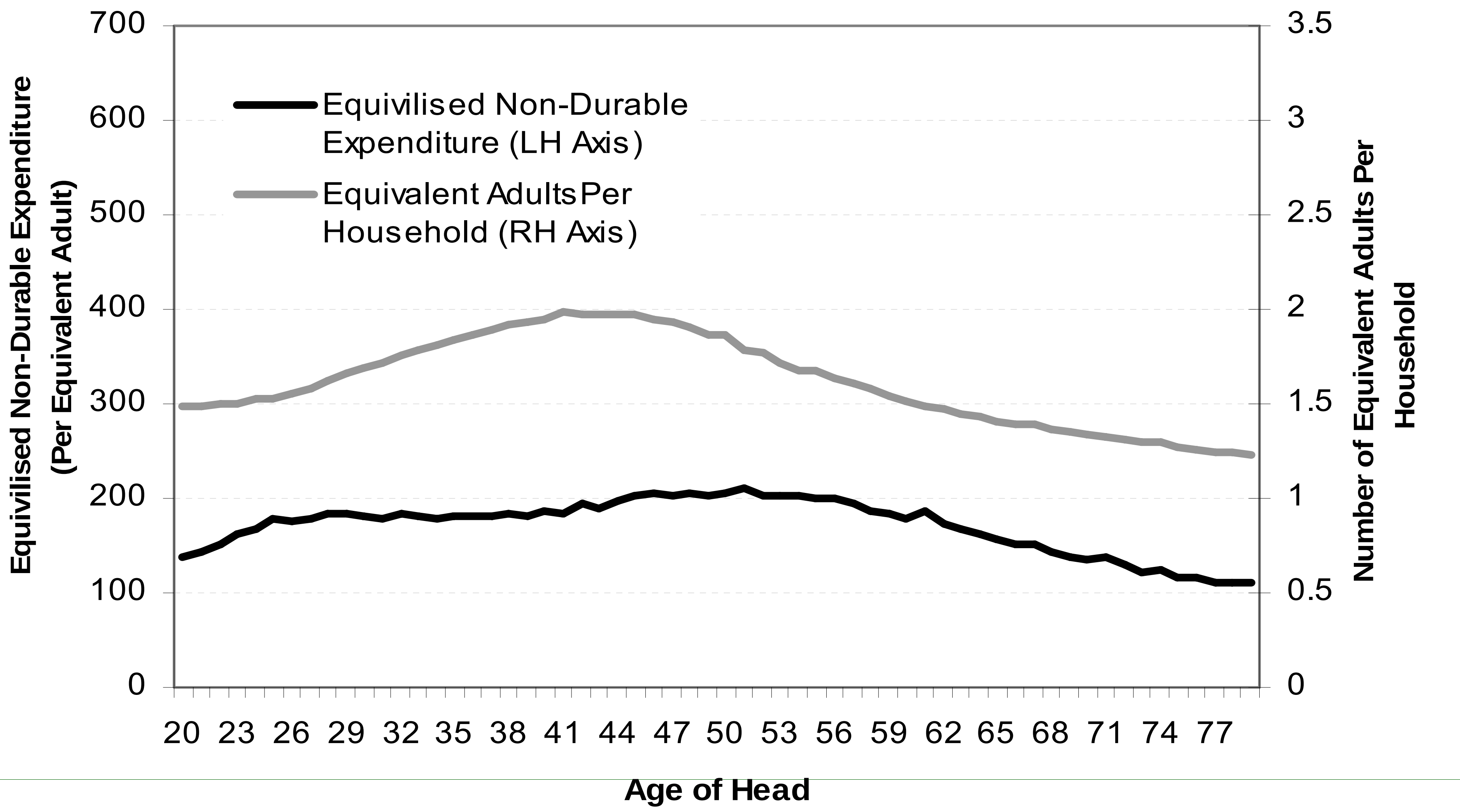
- When the life-cycle model works
  - How much life-cycle consumption/needs smoothing goes on?

Net Income, Number of Equivalent Adults per Household



Source: UK FES 1974-2006

Consumption and Needs



Source: UK FES 1974-2006

Savings and Pensions

- How much life-cycle consumption/needs smoothing goes on?
- - permanent/ transitory shocks to income across wealth distribution (Blundell, Pistaferri and Preston *(AER)*)
- - consumption and savings at/after retirement (BBT *(AER)*)
- - how well do individuals account for future changes?
  - UK pension reform announcements Attanasio & Rohwedder (*AER*)
  - Liebman, Luttmer & Seif *(AER)*
- Intergeneration transfers - Altonji, Hayashi & Kotlikoff, etc
  - More recent evidence on bequests

Savings and Pensions

- Temporal preferences, ability, cognition, framing..
  - Banks & Diamond (MRI chapter); Diamond & Spinnewijn, Saez,..
- Earnings/skill uncertainty – across life-cycle and business cycle
  - Role in dynamic fiscal policy arguments for capital taxation Kocherlakota; Golosov, Tsyvinski & Werning, ..

Implications for Reform

- Indirect Taxation
- Taxation of Savings
- An integrated and revenue neutral analysis of reform…

Two good broad guidelines for indirect taxation

1. Tax final consumption only

- VAT generally achieves this
- But stamp duties, business rates and VAT exemptions do not

2. Tax goods at the same rate

- Complexity creates strong presumption against differentiation
- There are sound economic efficiency arguments for differentiation
- But case sufficiently strong in only a few cases
  - Childcare, ‘sin taxes’ ‘green taxes’
- Distributional arguments for differentiation are weaker

Institute for Fiscal Studies

- Evidence on consumer behaviour => exceptions to uniformity
  - Childcare strongly complementary to paid work
  - Various work related expenditures (QUAIDS on FES, MRI)
  - Human capital expenditures
  - ‘Vices’: alcohol, tobacco, betting, possibly unhealthy food have externality / merit good properties ➔ keep ‘sin taxes’
  - Environmental externalities (three separate chapters in MRII)
- These do not line up well with existing structure of taxes

  ⇒Broadening the base – many zero rates in UK VAT
- Compensating losers, even on average, is difficult
  - Worry about work incentives too
  - Work with set of direct tax and benefit instruments as in earnings tax reforms

Indirect Taxation – UK case

	Estimated cost (£m)
Zero-rated:	
Food	11,300
Construction of new dwellings	8,200
Domestic passenger transport	2,500
International passenger transport	150
Books, newspapers and magazines	1,700
Children's clothing	1,350
Drugs and medicines on prescription	1,350
Vehicles and other supplies to people with disabilities	350
Cycle helmets	10
Reduced-rated:	
Domestic fuel and power	2,950
Contraceptives	10
Children's car seats	5
Smoking cessation products	10
Residential conversions and renovations	150
VAT-exempt:	
Rent on domestic dwellings	3,500
Rent on commercial properties	200
Private education	300
Health services	900
Postal services	200
Burial and cremation	100
Finance and insurance	4,500

Impact on budget share of labour supply

Conditional on income and prices

Bread and Cereals	Negative
Meat and Fish	Negative
Dairy products	Negative
Tea and coffee	Negative
Fruit and vegetables	Negative
Food eaten out	Positive
Beer	Positive
Wine and spirits	Positive
Domestic fuels	Negative
Household goods and services	Positive
Adult clothing	Positive
Childrens' clothing	Negative
Petrol and diesel	Positive

Source: QUAIDS on UK FES, MRI

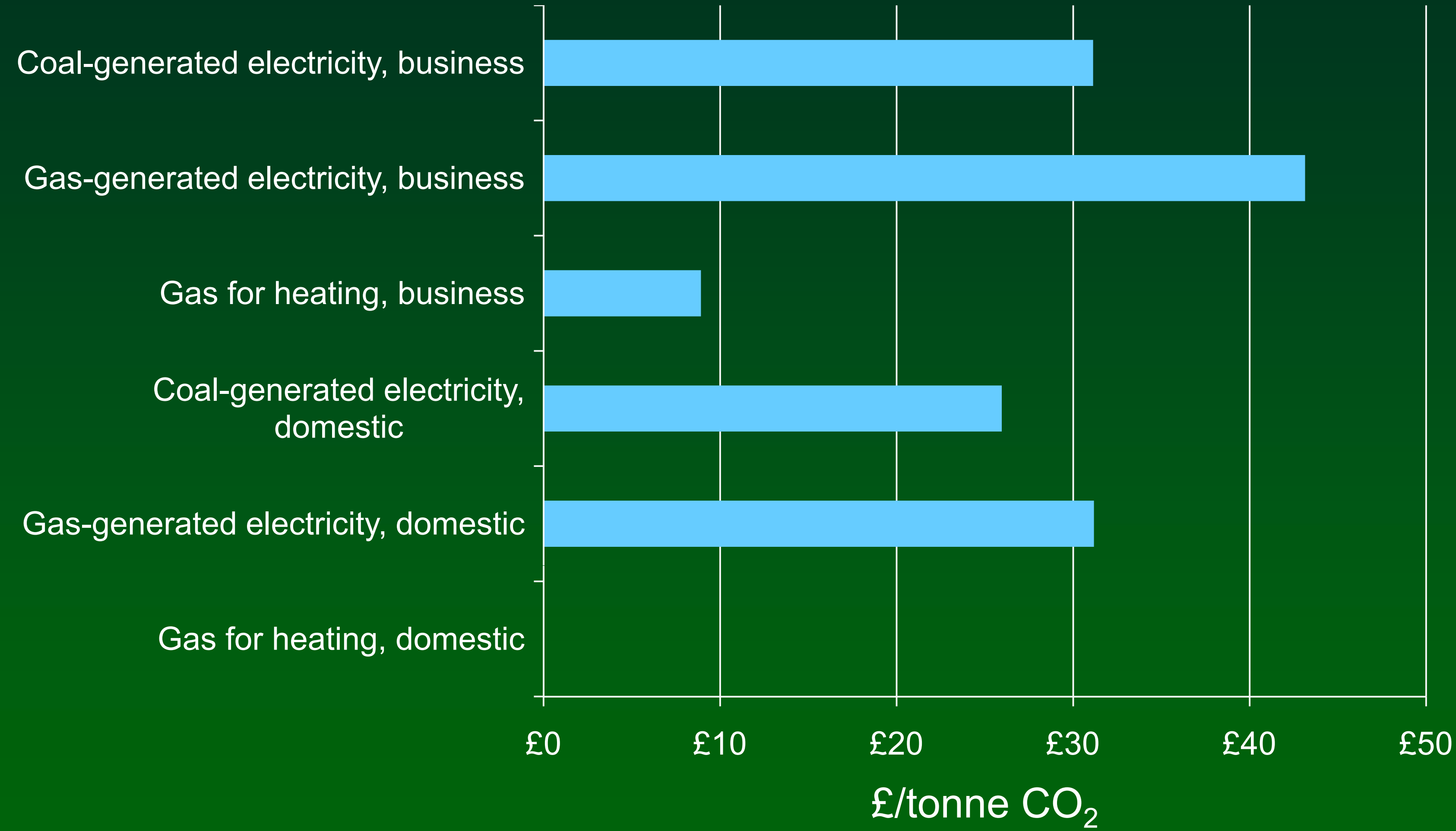
VAT in the UK

- UK zero-rates most food, water, reading matter, children's clothes,…
  – Clearly for distributional, not efficiency, reasons → should be ended
  – Other countries show that it is not inevitable
- Reduced rate on domestic fuel looks particularly bad given environmental concerns
- Exemptions violate *both* of our principles

Institute for Fiscal Studies

Implicit carbon taxes, 2009-10

Excluding VAT subsidy of domestic energy



Institute for Fiscal Studies

Broadening the VAT base

- We simulate removing almost all zero and reduced rates
- Raises £24bn (with a 17.5% VAT rate) if no behavioural response
- Reduces distortion of spending patterns
  - With responses we find, could (in principle) compensate every household and have about £3-5bn welfare gain
- On its own base broadening would be regressive and weaken work incentives
- Can a practical package avoid this?

Institute for Fiscal Studies

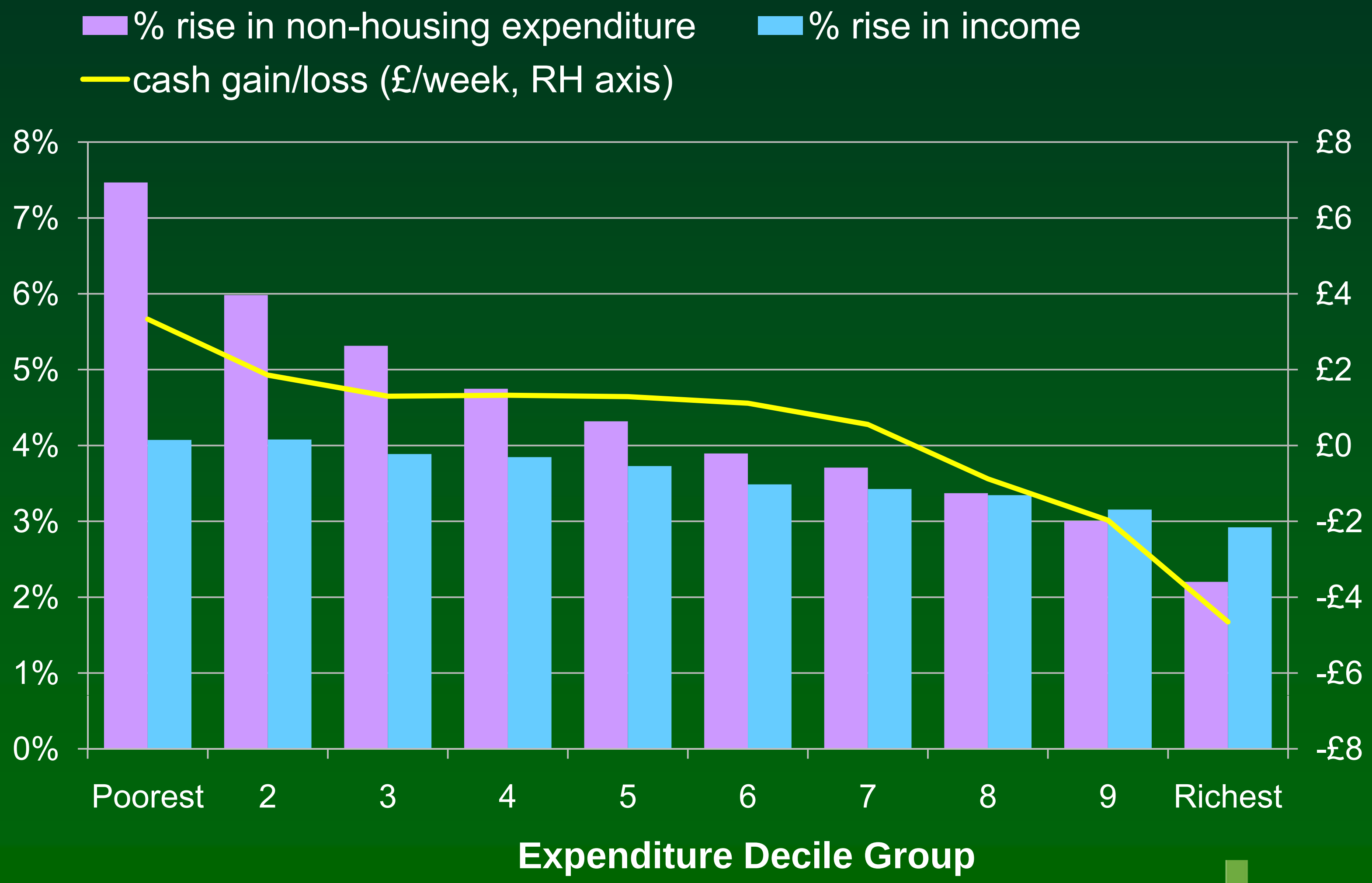
We illustrate one way of using the money:

- Automatic 3.4% indexation of all tax thresholds and benefit rates. Plus…
- Extra 3.4% means-tested benefits, 2% state pension, 10% child benefit
- £1,000 increase in income tax allowances
- £4,530 cut in income tax basic rate limit and NIC upper earnings limit
- 2p cut in basic rate, 1½p cut in higher rate, of income tax

VAT reform: effects by income

Institute for Fiscal Studies

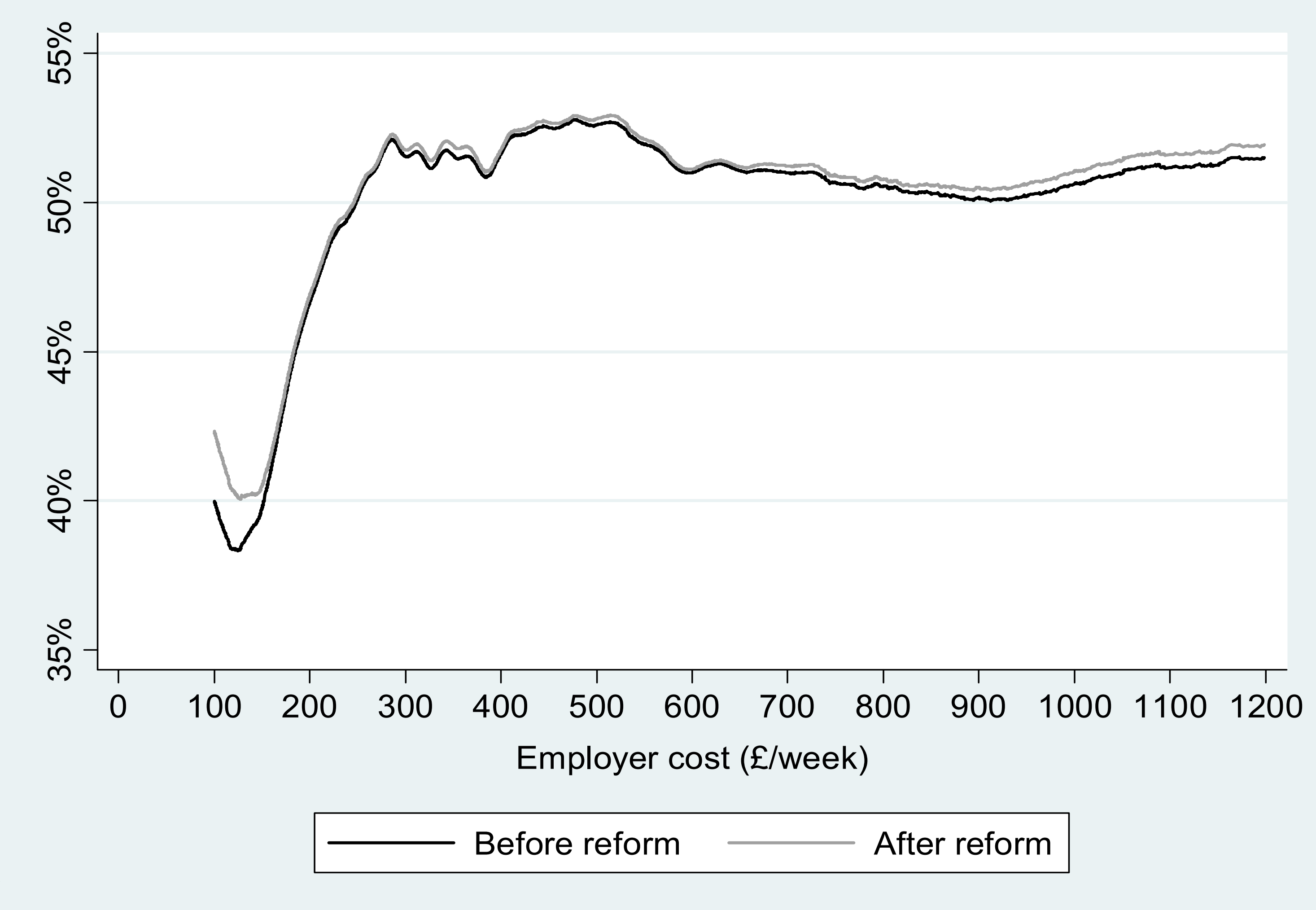
VAT reform: effects by expenditure



Institute for Fiscal Studies

VAT reform: incentive to work at all

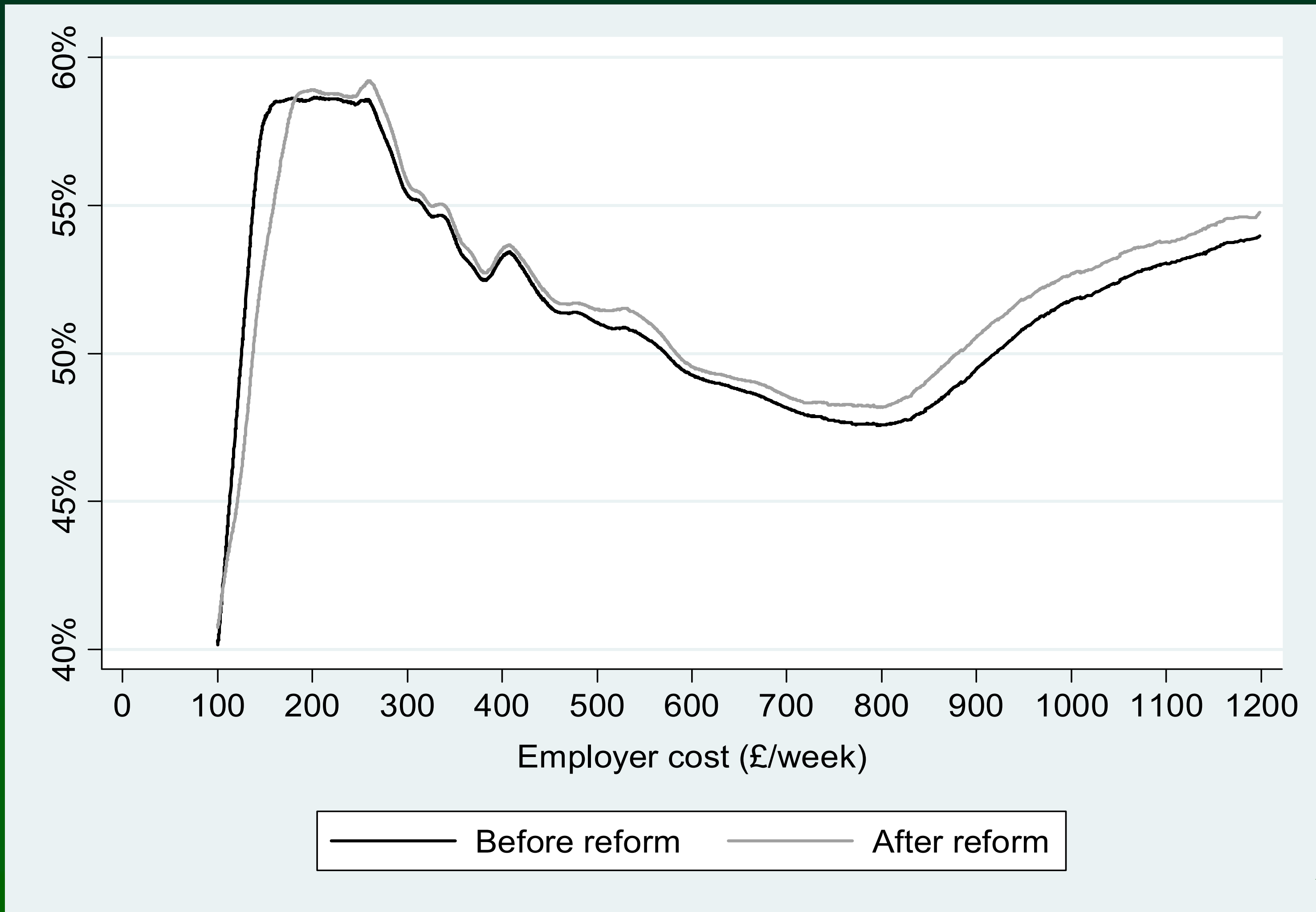
Participation tax rates



Institute for Fiscal Studies

VAT reform: incentive to increase earnings

Effective marginal tax rates

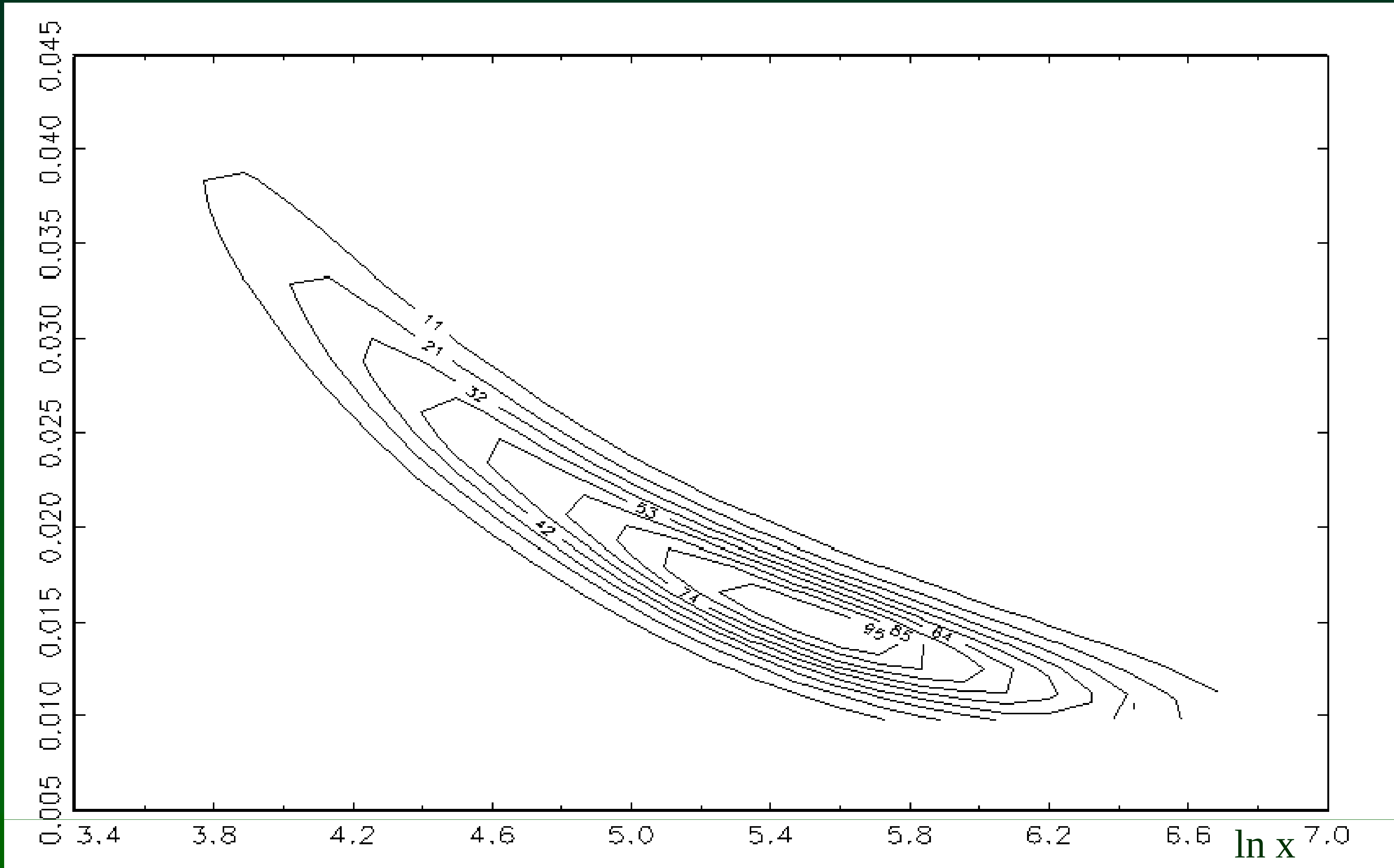


Institute for Fiscal Studies

Broadening the base of indirect taxation

- Empirical results suggest current indirect tax rates do not line up with any reasonable justification and are a poor way of delivering redistribution given the other tax instruments available
  - Interpretation of results is that we can implement a reform package manages to achieve compensation while also avoiding significant damage to work incentives.
  - On average the *EMTR* rise by less than a quarter of a percentage point and the *PTR* by less than half a percentage point.
  - little change in work incentives at any earnings level
- Quite sizable welfare gains from removing distortions =>

Welfare gains - Distribution of EV/x by ln(x)



Source: MRII

The shape of a reform package

- Broaden VAT base
  - keep childcare differentiation, sin taxes + reformed environmental taxes, etc
- Reforms to the income tax / benefit rate schedule
  - Integrated benefit
  - Apply lessons from empirical evidence on response elasticities
  - Compensate for distributional effects of reform package
- Interaction with taxation of corporate profits and the taxation of saving

Guiding Principles on taxation of savings

- Minimise distortions to decisions about when to consume
- Life-cycle perspective: saving = deferred consumption
- Treat different forms of saving and investment in similar ways
- Avoid sensitivity to rate of inflation

Institute for Fiscal Studies

The Taxation of Saving

- Organising principal around which we begun was the ‘expenditure tax’ as in Meade/Bradford but with adaptations
  - coherent approach to taxation of earnings and savings over the life-cycle – lifetime base
  - provides a framework for the integration of capital income taxation with corporate taxation
  - capital gains and dividends treated in the same way and overcomes ‘lock-in’ incentive from CGT
  - can incorporate progressivity and captures excess returns

Institute for Fiscal Studies

The Taxation of Saving

- taxing saving is an inefficient way to redistribute
  - assuming that the decision to delay consumption tells us nothing about ability to earn
- implies zero taxation of the normal return to capital
  - can be achieved through various alternative tax treatments of savings
  - but not a standard income tax

Institute for Fiscal Studies

Taxing Capital Gains

- Taxing capital gains only on realisation favours gains over cash income (even if realised gains taxed at full marginal rates)
- Tax deferral on accrued gains → lock-in effect
- Incentives to convert income into capital gains
  - complex anti-avoidance provisions
- Taxing capital gains on an accrual-equivalent basis is theoretically possible, but never implemented in practice

Institute for Fiscal Studies

Neutral Taxation of Savings

- We discuss two alternatives to a standard income tax which avoid intertemporal distortion
  - expenditure tax
  - (Normal) Rate of Return Allowance
- These two approaches are broadly equivalent
- Both also treat cash income and capital gains equally, and avoid sensitivity to inflation

Institute for Fiscal Studies

Neutral Taxation of Savings

- Expenditure tax (EET)
  - tax relief for inflows
  - tax all outflows
  - cf. approx. current treatment of pensions
- Rate of Return Allowance (RRA)
  - no tax relief for inflows
  - tax relief for normal component of returns
  - cf. similar to an ACE corporation tax
  - captures 'excess returns'

Institute for Fiscal Studies

Fraction of wealth held in different tax treatments in UK

Decile of gross financial wealth	*Range of gross financial wealth (£'000s)*	*Proportion of wealth held in:*		
		Private pensions	*ISAs*	*Other assets*
Poorest	<1.7	0.126	0.091	0.783
2	1.7–16.6	0.548	0.138	0.315
3	16.6–39.1	0.652	0.110	0.238
4	39.1–75.9	0.682	0.108	0.210
5	75.9–122.3	0.697	0.079	0.223
6	122.3–177.2	0.747	0.068	0.185
7	177.2–245.4	0.781	0.062	0.157
8	245.4–350.3	0.818	0.046	0.136
9	350.3–511.2	0.790	0.057	0.153
Richest	>511.2	0.684	0.044	0.273
All		0.736	0.055	0.209

Source: ELSA, 2004 – at least one member aged 52-64

Unfortunately…

Conditions for zero rate on normal return can fail if:

1. Heterogeneity (e.g. high ability people have higher saving rates)

   – new evidence and theory, Banks & Diamond (MRI); Laroque, Gordon & Kopczuk; Diamond & Spinnewijn; …

2. Earnings risk and credit constraints

   – new theory and evidence on earnings ability risk, Golosov, Tsyvinski & Werning; Blundell, Preston & Pistaferri; Conesa, Kitao & Krueger

   – e.g. keep wealth low to reduce labour supply response, weaken incentive compatibility constraint

3. Outside (simple) life-cycle savings models

   - myopia; self-control problems; framing effects; information monopolies

4. Non-separability (timing of consumption and labour supply)
5. Evidence suggests a need to adapt standard expenditure tax arguments

But correct some of the obvious defects:

- Capture excess returns and rents
  - move to RRA(TtE) or EET where possible – neutrality across assets
  - TEE limited largely to interest baring accounts
  - Lifetime accessions tax across generations, if practicable.
- Pensions - allow some additional incentive to lock-in savings
  - twist implicit retirement incentives to later ages
  - current tax free lump sum in UK is too generous and accessed too early

Interaction with Corporate Taxation

- A progressive rate structure for the shareholder income tax, rather than the flat rate proposed by GHS in MRI
  - with progressive tax rates on labour income, progressive rates are also required on shareholder income to avoid differential tax treatments of incorporated and unincorporated firms
  - a lower progressive rate structure on shareholder income than on labour income reflects the corporate tax already paid
- Suitable rate alignment between tax rates on corporate income, shareholder income and labour income
  - exempt normal rate to give neutrality between debt and equity
- Note that current rates in UK on labour income (top 45%) and capital gains (18%)!

Empirical Evidence and Tax Policy Design: Lessons from the Mirrlees Review

Five building blocks for the role of evidence in tax design….

- Key margins of adjustment to tax reform
- Measurement of effective tax rates
- The importance of information, complexity and salience
- Evidence on the size of responses
- Implications for tax design

see

http://www.ifs.org.uk/mirrleesReview

Institute for Fiscal Studies

VAT and financial services

- Consumption of financial services should be taxed
- Exemption causes serious problems
  - Financial services too cheap for households, too expensive for firms
  - Costs around £7bn (though insurance premium tax recoups £2bn)
- Can't be taxed through standard VAT mechanism
- But there are equivalent alternatives
  - Cash-flow tax, Tax Calculation Accounts, Financial Activities Tax,...
- Need detailed study to find the most practical option

Congestion charging

- Congestion charging could have big benefits
  - Government estimates potential welfare gains at 1% of national income
- In contrast, fuel duty and vehicle excise duty not well targeted
  - But far too high to justify by carbon emissions alone
- And will get even worse
  - Increased fuel efficiency; shift to electric cars?
- National road pricing should replace some of fuel duty
- A premium on acting quickly
  - Before lose what little we have
  - And while still a quid pro quo to offer

Institute for Fiscal Studies

But (too) many key issues unresolved, and with little evidence base (!)

Including:

- Tax credits and earnings progression
- Distinction between dynamic and static policies
- Human capital investment bias and savings taxation
- Some transition issues and capitalisation
- ….

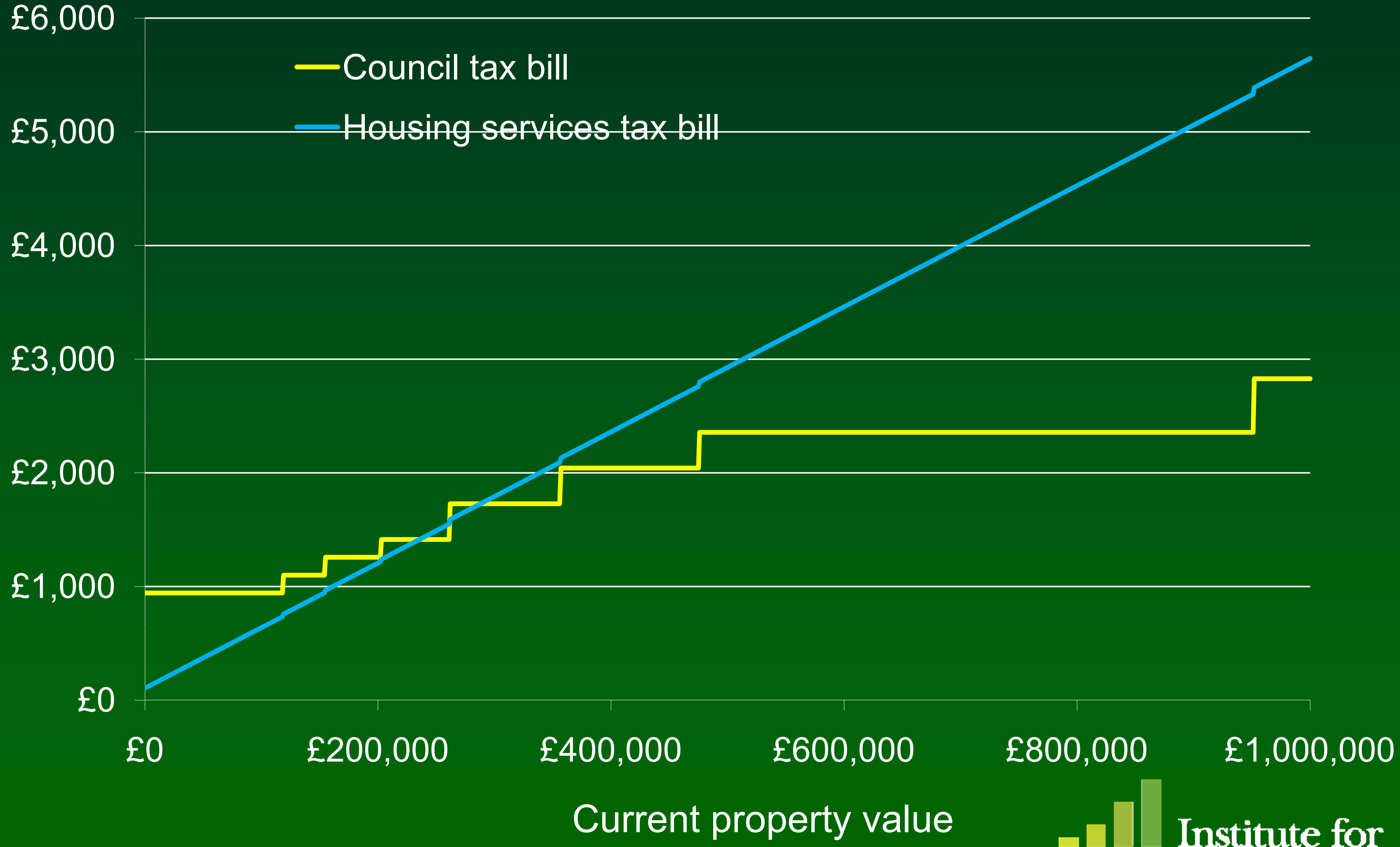
Taxing consumption of housing services

- Housing should be taxed like other consumption
  - But not currently subject to VAT
- Could either tax new build, or stream of consumption
- From where the UK starts, the latter makes more sense
- Tax the annual consumption value of housing: substitute for VAT
- Looks like a sensibly reformed council tax
  - Based on up-to-date valuations (rather than 1991 values)
  - Proportional to values (rather than pointlessly regressive and banded)
  - No discounts for single occupancy (rather than 25% discount)
- And replace stamp duty on housing in the process
  - Initially on a revenue-neutral basis

Institute for Fiscal Studies

A 'housing services tax'

Note: rough guide only – see Chapter 16 for details



Institute for Fiscal Studies

Summary of main indirect tax recommendations

- End almost all zero rates, reduced rates and exemptions in VAT
  - Use revenue to compensate poor and maintain work incentives
- Apply equivalent taxes to financial services and housing
  - The former would remove the need for insurance premium tax
  - The latter would replace council tax and stamp duty on housing
- Move towards consistent pricing of greenhouse gas emissions
- Replace most of fuel duty with a national system of road pricing

Institute for Fiscal Studies

Some Additional References:

Banks, J., Blundell, R., and Tanner, S. (1998) “Is there a retirement-savings puzzle?”, *American Economic Review*, 88, 769 – 788.

Besley, T. and S. Coate (1992), “Workfare versus Welfare: Incentive Arguments for Work Requirement in Poverty Alleviation Programs”, *American Economic Review*, 82(1), 249-261.

Blundell, R. (2006), “Earned income tax credit policies: Impact and Optimality”, The 2005 Adam Smith Lecture, *Labour Economics*, 13, 423-443.

Blundell, R.W., Duncan, A. and Meghir, C. (1998), "Estimating Labour Supply Responses using Tax Policy Reforms", *Econometrica*, 66, 827-861.

Blundell, R, Duncan, A, McCrae, J and Meghir, C. (2000), "The Labour Market Impact of the Working Families' Tax Credit", *Fiscal Studies*, 21(1).

Blundell, R. and Hoynes, H. (2004), "In-Work Benefit Reform and the Labour Market", in Richard Blundell, David Card and Richard .B. Freeman (eds) *Seeking a Premier League Economy*. Chicago: University of Chicago Press.

Blundell, R. and MaCurdy (1999), "Labour Supply: A Review of Alternative Approaches", in Ashenfelter and Card (eds), *Handbook of Labour Economics*, Elsevier North-Holland.

Blundell, R., Meghir, C., and Smith, S. (2002), ‘Pension incentives and the pattern of early retirement’, *Economic Journal*, 112, C153–70.

Blundell, R., and A. Shephard (2008), ‘Employment, hours of work and the optimal taxation of low income families’, IFS Working Papers , W08/01

Brewer, M. A. Duncan, A. Shephard, M-J Suárez, (2006), “Did the Working Families Tax Credit Work?”, *Labour Economics*, 13(6), 699-720.

Card, David and Philip K. Robins (1998), "Do Financial Incentives Encourage Welfare Recipients To Work?", *Research in Labor Economics*, 17, pp 1-56.

Chetty, R. (2008), ‘Sufficient statistics for welfare analysis: a bridge between structural and reduced-form methods’, National Bureau of Economic Research (NBER), Working Paper 14399

Diamond, P. (1980): "Income Taxation with Fixed Hours of Work," *Journal of Public Economics*, 13, 101-110.

Eissa, Nada and Jeffrey Liebman (1996), "Labor Supply Response to the Earned Income Tax Credit", *Quarterly Journal of Economics*, CXI, 605-637.

Immervoll, H. Kleven, H. Kreiner, C, and Saez, E. (2005), `Welfare Reform in European Countries: A Micro-Simulation Analysis’ *Economic Journal.*

Keane, M.P. and Moffitt, R. (1998), "A Structural Model of Multiple Welfare Program Participation and Labor Supply", *International Economic Review*, 39(3), 553-589.

Kopczuk, W. (2005), 'Tax bases, tax rates and the elasticity of reported income', *Journal of Public Economics*, 89, 2093–119.

Laroque, G. (2005), "Income Maintenance and Labour Force Participation", *Econometrica,* 73(2), 341-376*.*

Mirrlees, J.A. (1971), "The Theory of Optimal Income Taxation", *Review of Economic Studies*, 38, 175-208.

Moffitt, R. (1983), "An Economic Model of Welfare Stigma", *American Economic Review*, 73(5), 1023-1035.

Phelps, E.S. (1994), "Raising the Employment and Pay for the Working Poor", *American Economic Review*, 84 (2), 54-58.

Saez, E. (2002): "Optimal Income Transfer Programs: Intensive versus Extensive Labor Supply Responses," *Quarterly Journal of Economics*, 117, 1039-1073.

Sørensen , P. B. (2009) "Dual income taxes: a Nordic tax system", Paper prepared for the conference on *New Zealand Tax Reform – Where to Next?.*

ETRs for basic-rate taxpayer (BRT) and higher-rate taxpayer (HRT)

Asset		Effective tax rate (%)	
		BRT	HRT
ISA (cash or stocks and shares)		0	0
Cash deposit account		33	67
Employee contribution to pension	(invested 10 years)	–21	–53
	(invested 25 years)	–8	–21
Employer contribution to pension	(invested 10 years)	–115	–102
	(invested 25 years)	–45	–40
Owner-occupied housing		0	0
Stocks and shares[b]	(invested 10 years)	10	35
	(invested 25 years)	7	33

Institute for Fiscal Studies

Effective tax rates on returns to pension saving

Asset		Effective tax rate (%)
Employee contribution to a pension		
Tax rate in work	Tax rate in retirement	
Basic rate (20%)	Basic rate (20%)	–21
Higher rate (40%)	Higher rate (40%)	–53
Higher rate (40%)	Basic rate (20%)	–122
Basic rate (20%)	Pension credit taper (40%)	46
Tax credit taper (59%)	Basic rate (20%)	–260
Tax credit taper (59%)	Pension credit taper (40%)	–189