

Institute for  
Fiscal Studies

## *Tax By Design: The Mirrlees Review*

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## *The Mirrlees Review*

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- Built on a large body of economic theory and evidence.
- Inspired by the *Meade Report* on Taxation
- Review of tax design from first principles
  - for modern open economies in general
  - for the UK in particular
- Received submissions from tax experts.
- Evidence to Treasury Select Committee, etc

# The Mirrlees Review

## *Reforming the Tax System for the 21st Century*

### Editorial Team

*Chairman:* Sir James Mirrlees

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Steve Bond (Oxford & IFS)

Robert Chote (IFS)

Malcolm Gammie QC (One Essex Court)

Paul Johnson (IFS)

Gareth Myles (Exeter & IFS)

James Poterba (MIT & NBER)

## Two volumes:

- **'Dimensions of Tax Design'**: published April 2010
  - a set of 13 chapters on particular areas by IFS researchers + international experts, along with expert commentaries (MRI)
- **'Tax by Design'**: published September 2011
  - an integrated picture of tax design and reform, written by the editors (MRII)
- **OUP** but also all on open access at
  - <http://www.ifs.org.uk/mirrleesReview>

# Why another Tax Review?

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Changes in the world (since the *Meade Report*)

Changes in our understanding

Built on our increased empirical knowledge...

# Principles

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- **System:**
  - Consider the tax system as a whole
    - marginal tax rate is sum of all additional taxes paid when income increases by €1.
    - Particular taxes need not be green or progressive for the whole system to be green and progressive.
- **Neutrality:**
  - Don't discriminate (unnecessarily) between similar activities.
- **Progressivity:**
  - More tax from the better off.

# We start from a structure of taxes and benefits that...

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- Does not work as a system
  - Lack of joining up between welfare benefits, personal taxes and corporate taxes
- Is not neutral where it should be
  - Inconsistent savings taxes and a corporate tax system that favours debt over equity
- Is not well designed where it should deviate from neutrality
  - A mass of different tax rates on carbon and failure to price congestion properly
- Does not achieve progressivity efficiently
  - VAT zero and reduced rating a poor way to redistribute, and taxes and benefits damage work incentives more than necessary

# The broad proposals

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- Treat the system as a whole
  - A single integrated welfare benefit, and integrating NI and income tax
  - Use what we know about how people respond to taxes
  - Aligning tax rates across employment, self-employment and profits
- Move towards neutrality
  - Widening the VAT base
  - Not taxing the normal return to capital
- Whilst proposing sensible deviations from neutrality
  - Imposing a consistent tax on GHG emissions and on congestion
  - Special treatment for childcare costs, pension saving, and innovation
- Achieve progressivity through the direct tax and benefit system
  - Recognising constraints imposed by responses to incentives



## How did we reach our proposals?

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- **Five steps.....**
  1. Key margins of adjustment to tax reform
  2. Measurement of effective tax rates
  3. The importance of information, complexity and salience
  4. Evidence on the size of responses
  5. Implications for tax design

# Today

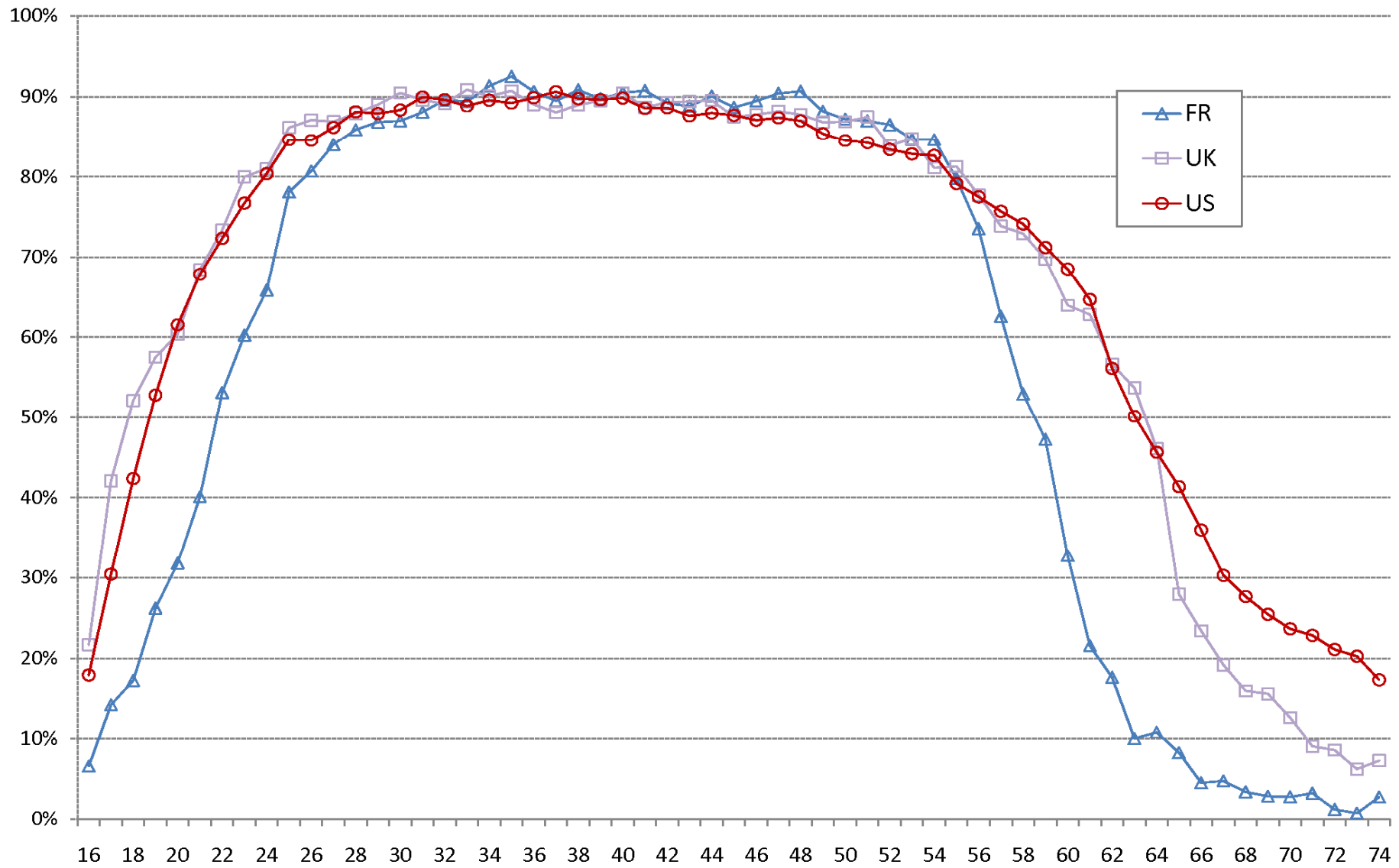
- I will run through our analysis and proposals on earnings taxation
- I will also look at indirect taxes and some assessments of equity
- Steve will then look at savings taxation
- He will also cover corporate taxes and the taxation of the financial sector
- We will miss out some key issues covered in *Tax by Design*, including
  - Environmental taxes
  - Property taxation

## Earnings Taxation: What do we have?

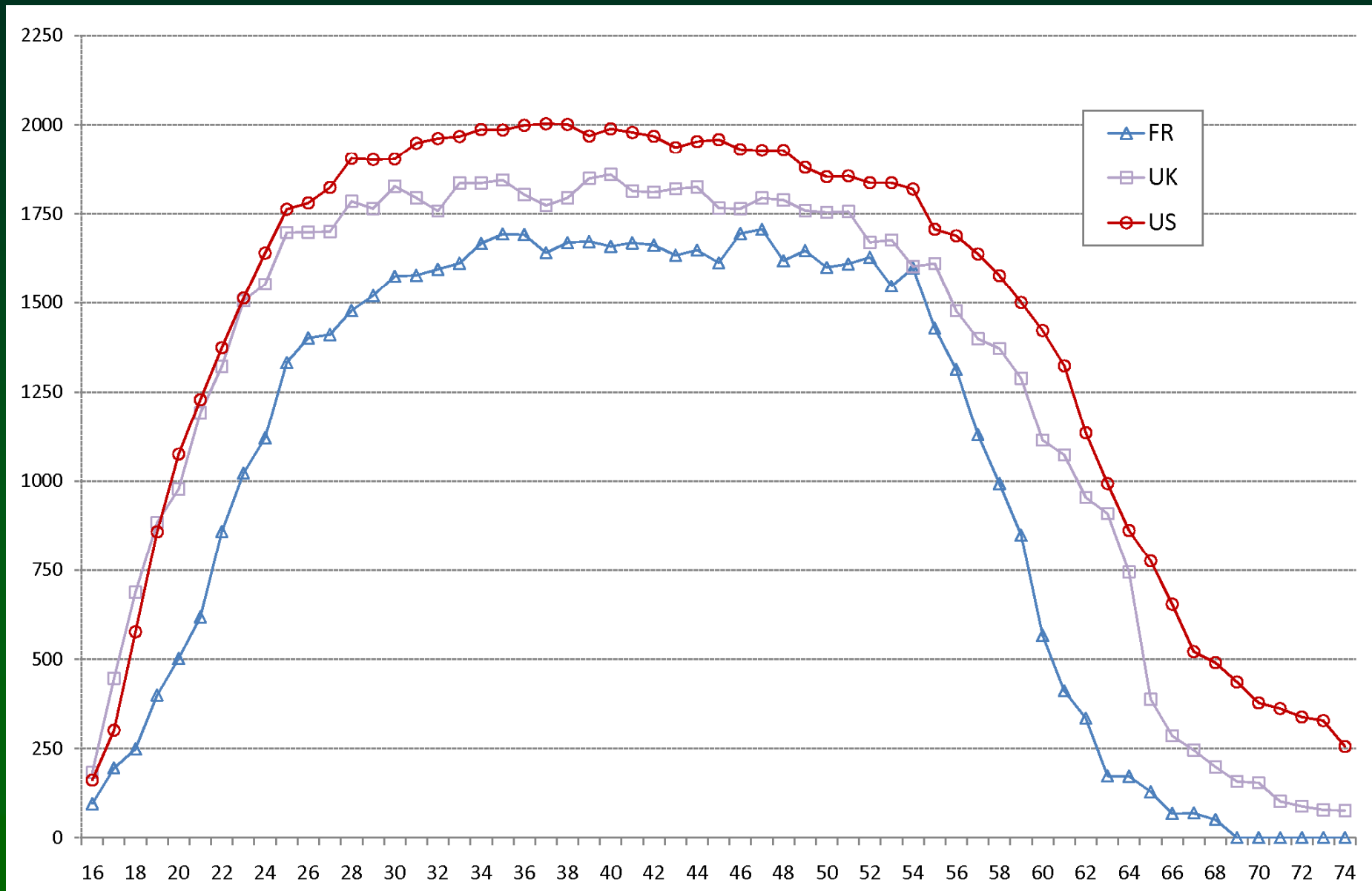
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1. A highly complex array of welfare benefits and tax credits
  - which do not fit together well
  - are difficult and costly for people to deal with
  - impose some very high effective tax rates on low earners
2. An income tax system that is opaque and unnecessarily complex
  - a bizarre marginal rate structure
  - two entirely separate taxes on earnings – income tax, employee and employer contributions (NICs)
3. A system that does not take proper account of what we know about how different people respond to tax incentives

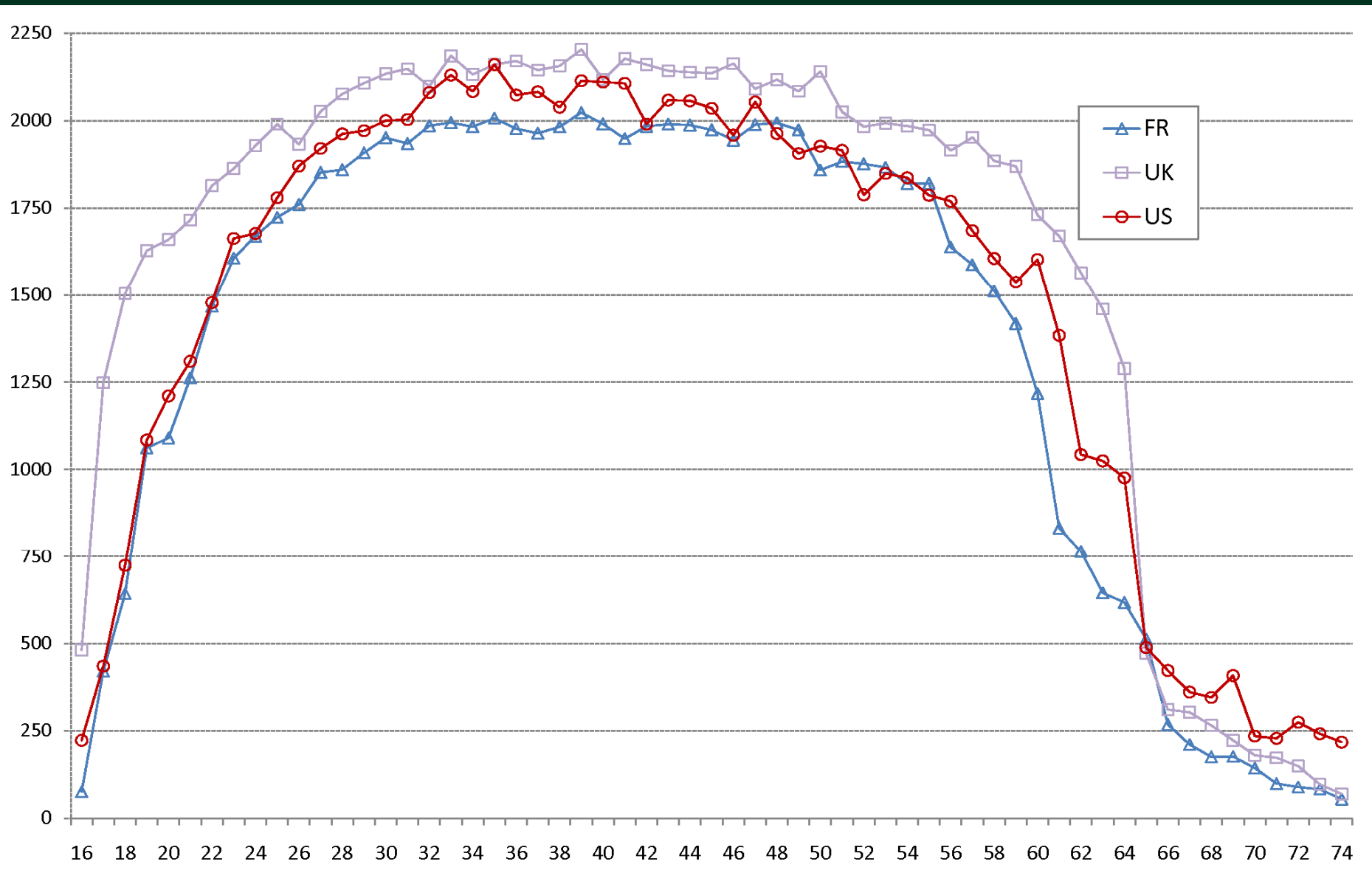
# Figure 3.2a Employment for men by age, FR, UK and US 2007



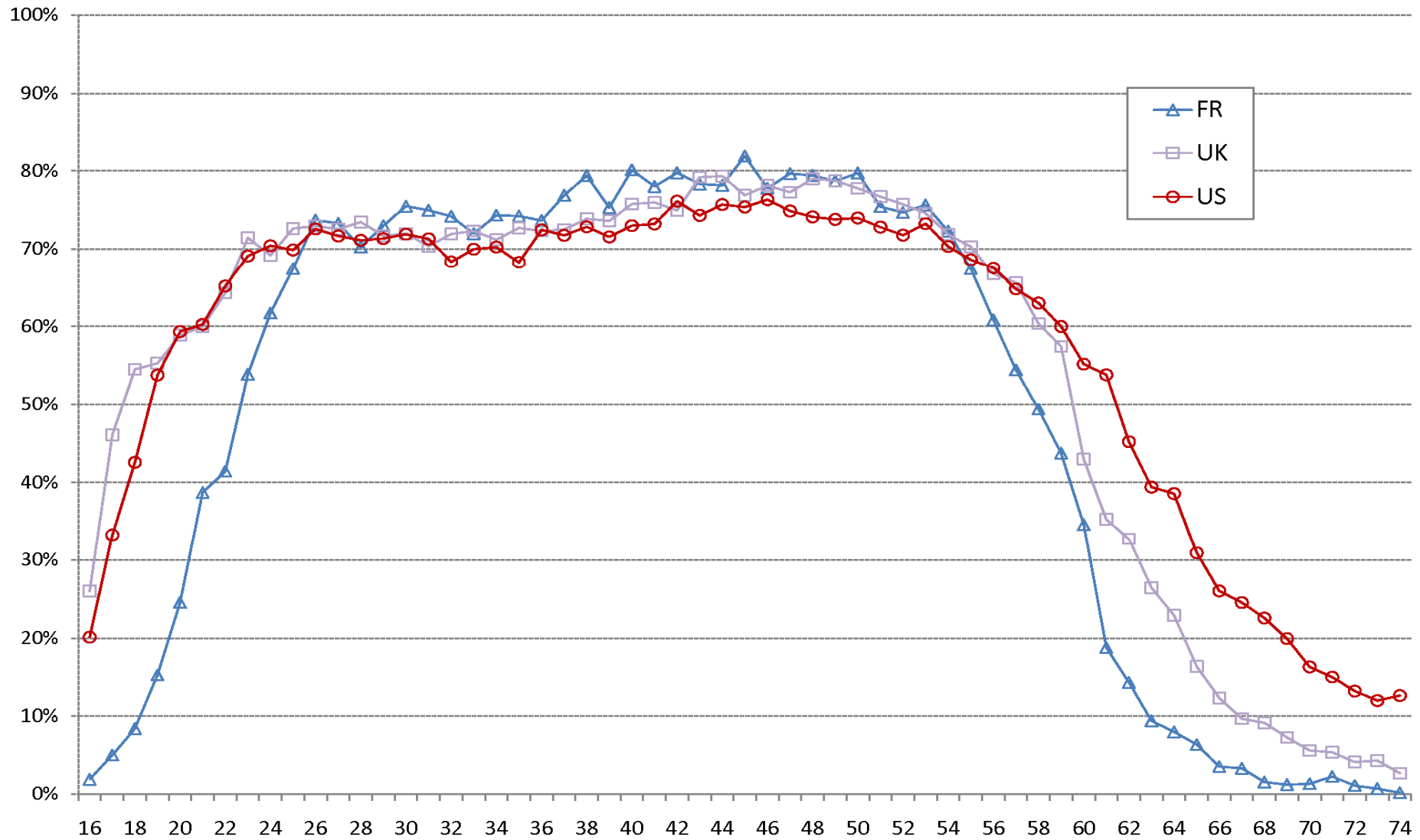
# Total Hours for men by age – FR, UK and US 2007



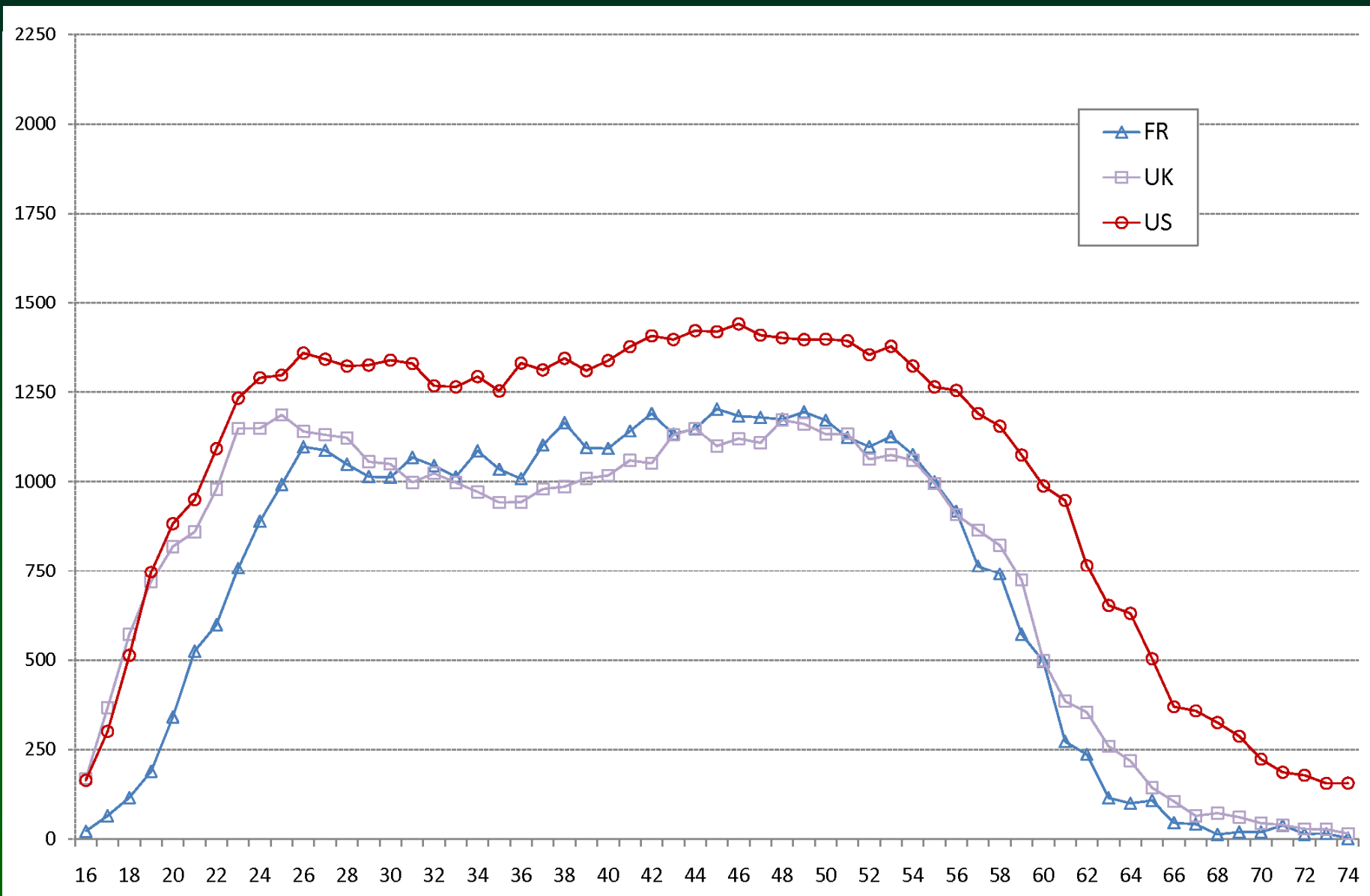
# Total Hours for men by age – FR, UK and US 1977



# Figure 3.2b: Female Employment by age: US, FR and UK 2007



# Female Total Hours by age – US, FR and UK 2007





## Why is this important for tax design?

1. Suggests where should we look for responses to tax reform.
2. Some key lessons from recent tax design
  - Importance of extensive labour supply margin (Heckman, Prescott/Rogerson, Wise, ..)
    - perhaps emphasized a little too much
  - A 'large' extensive elasticity can 'turn around' the impact of declining social weights
    - implying a higher transfer to low wage workers than those out of work
    - a role for earned income tax credits
3. Importance of margins other than labour supply
  - e.g. taxable income elasticities (at the top)

# What do we know about how people respond to taxes and benefits?

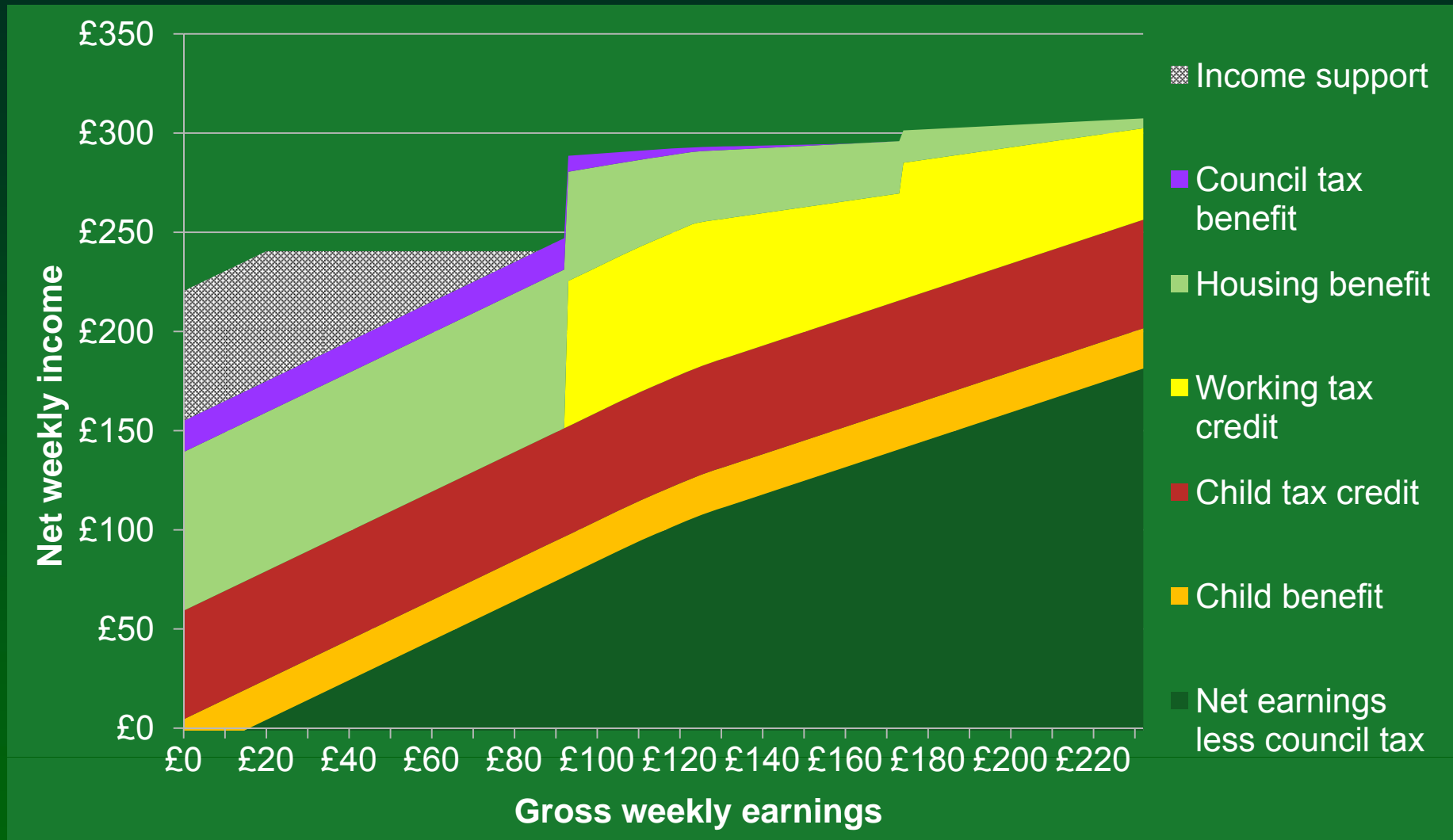
- Taxes reduce labour supply
  - substitution effects are generally larger than income effects
- And, especially for low earners,
  - responses are larger at the extensive margin—employment
  - than at the intensive margin—hours of work
- These responses are largest for
  - women where the youngest child is school-age
  - those aged over 55
- Other responses affecting taxable income matter
  - certainly for the rich

## Turn first to 'effective' tax rates on lower incomes

### Main defects in current welfare/benefit systems

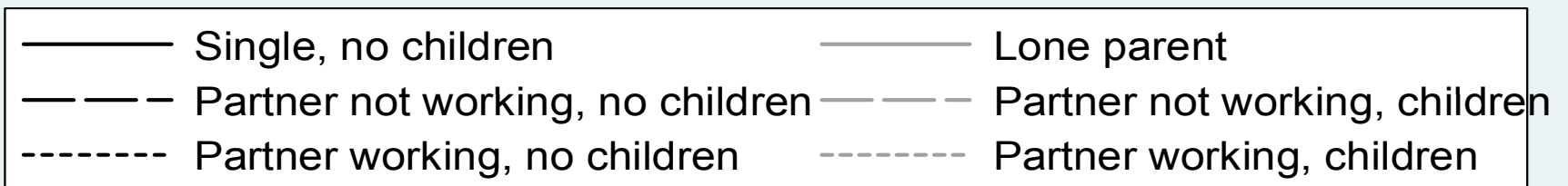
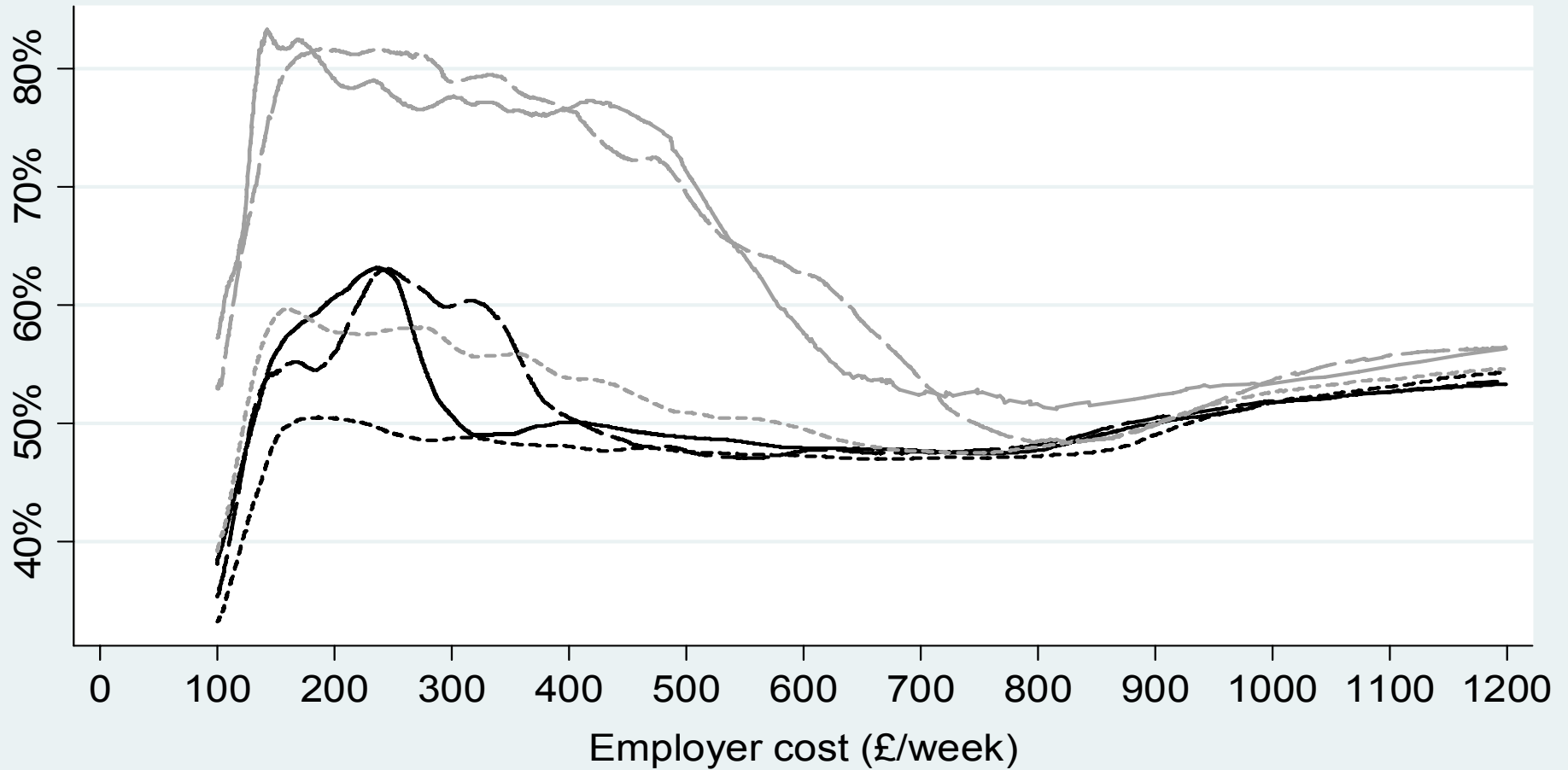
- Participation tax rates at the bottom remain very high in UK and elsewhere
- Marginal tax rates in the UK are well over 80% for low income working families because of phasing-out of means-tested benefits and tax credits
  - Working Families Tax Credit + Housing Benefit + etc
  - and interactions with the income tax system
  - For example, we can examine a typical budget constraint for a single mother...

# The interaction between taxes, tax credits and benefits

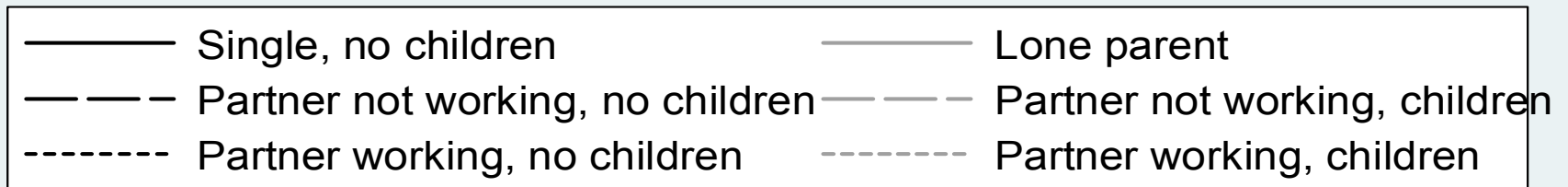
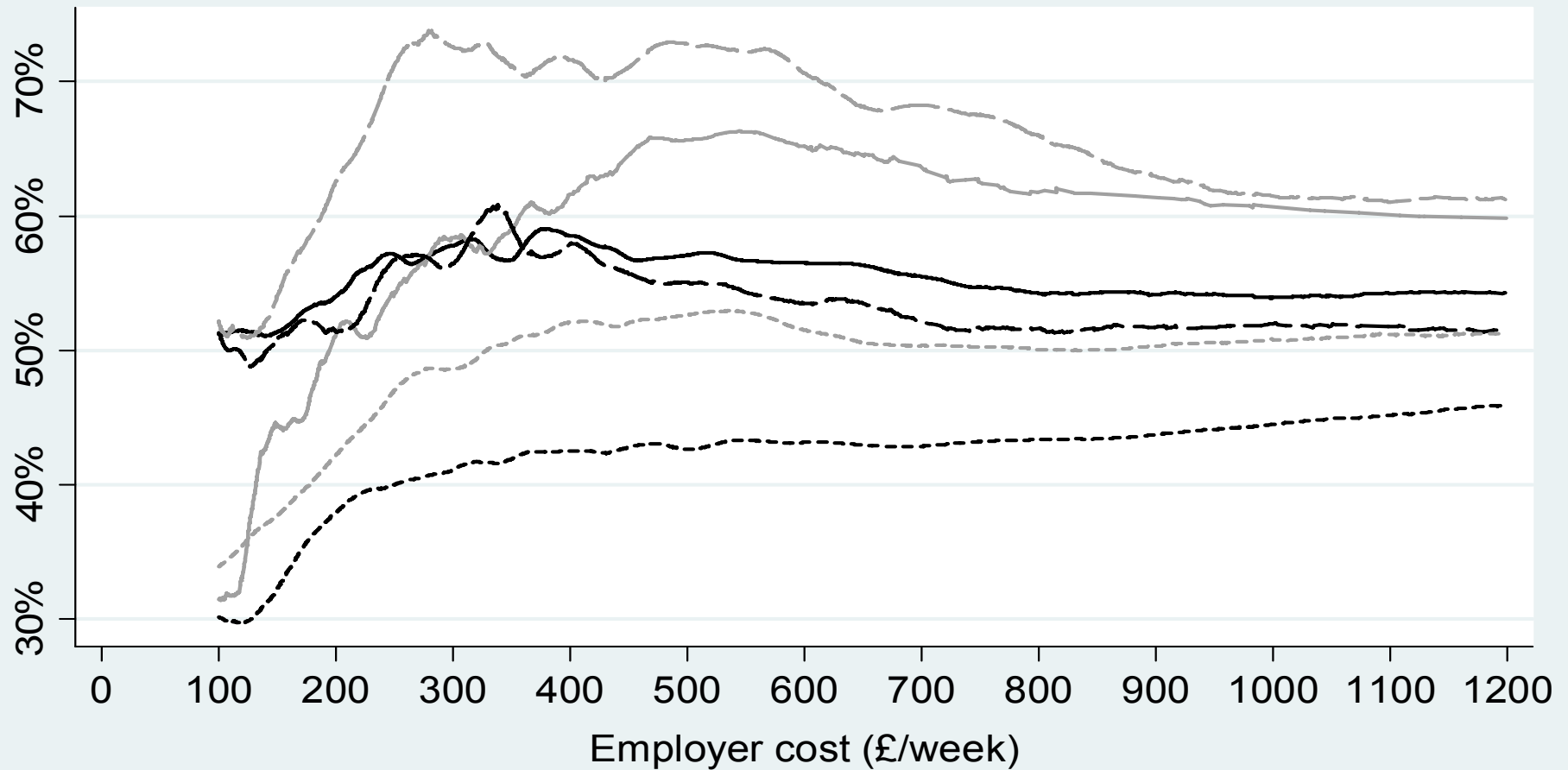


Notes: Lone parent, with one child aged between, earning the minimum wage.

# Average EMTRs for different family types

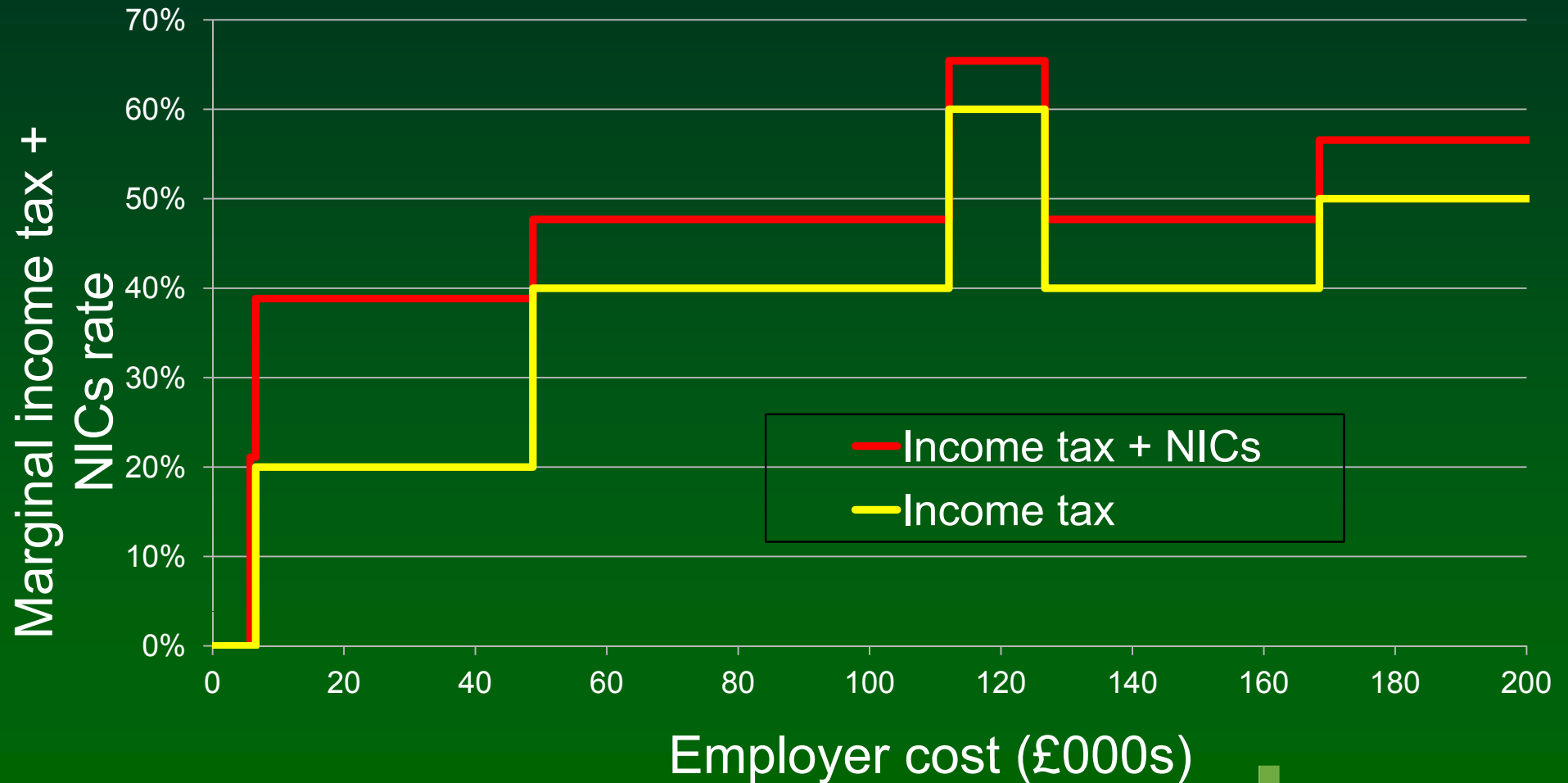


# Average PTRs for different family types



# At the top too... the UK income tax system lacks coherence

## Income tax schedule for those aged under 65, 2010–11



## Overview of the earnings tax proposals:

- The current system is unnecessarily complicated and induces too many people not to work or to work too little
  - The rate structure of income tax should be simplified, and income tax and employee/employer contributions should be merged.
  - A single integrated benefit should be introduced rationalising the way in which total support varies with income and other characteristics.
  - Work incentives should be targeted where they are most effective
- Discussion of top tax rate reform should consider the tax base



# Top tax rates and taxable income elasticities

- An 'optimal' top tax rate:
  - $e$  – taxable income elasticity
  - $t = 1 / (1 + a \cdot e)$
  - where  $a$  is the Pareto parameter.
- Estimate  $e$  from the evolution of top incomes in tax return data
- Estimate  $a$  ( $\approx 1.8$ ) from the empirical distribution

# Taxable Income Elasticities at the Top

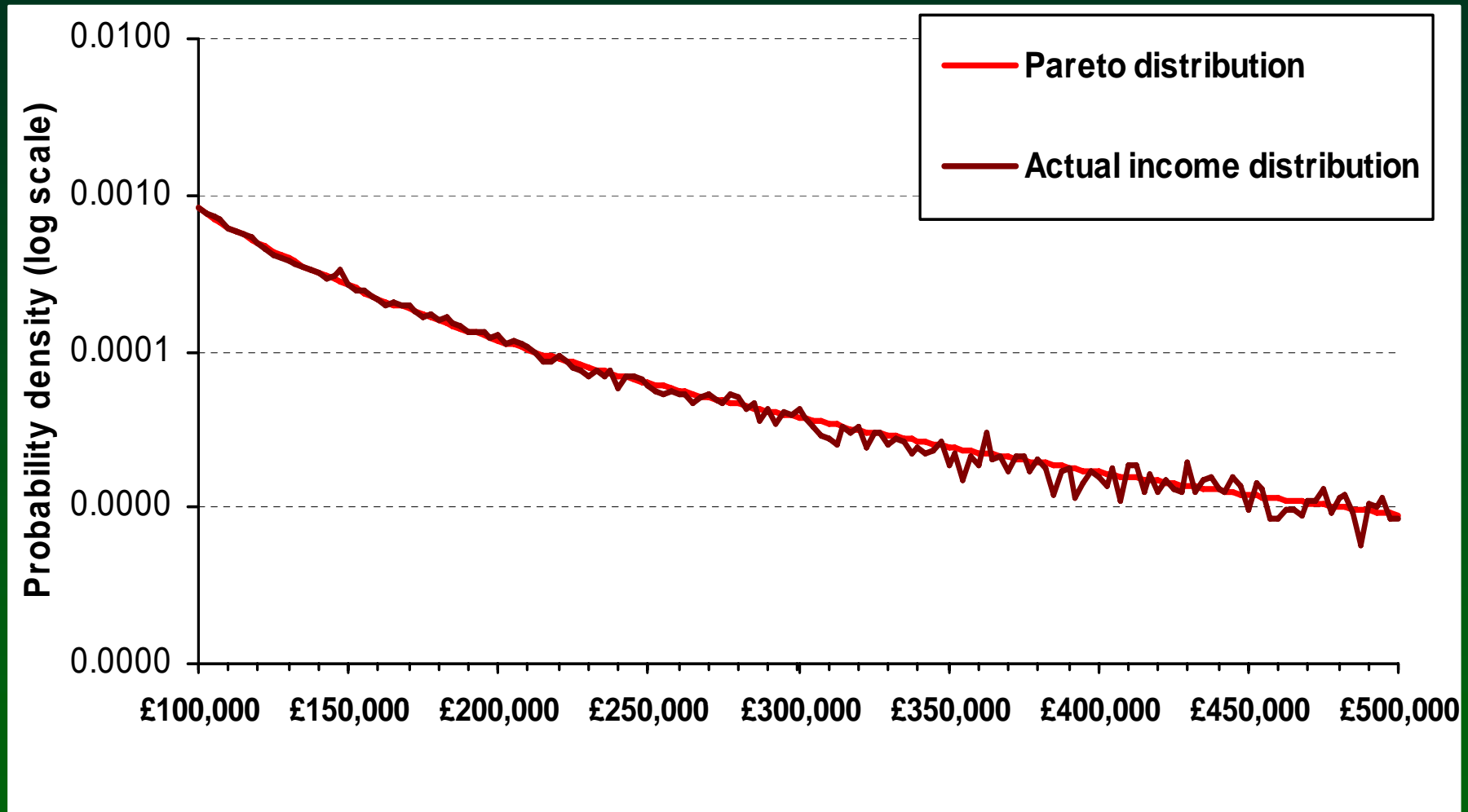
Simple Difference (top 1%)      DD using top 5-1%  
as control

1978 vs 1981	0.32	0.08
1986 vs 1989	0.38	0.41
1978 vs 1962	0.63	0.86
2003 vs 1978	0.89	0.64
Full time series	<b>0.69</b> (0.12)	<b>0.46</b> (0.13)

With updated data the estimate remains in the .35 - .55 range with a central estimate of .44, but remain quite fragile

Note also the key relationship between the size of elasticity and the tax base (Slemrod and Kopczuk, 2002)

# Pareto distribution as an approximation to the income distribution



Pareto parameter quite accurately estimated at 1.8  
=> revenue maximising tax rate for top 1% of 56%.

## Redesigning the tax rate schedule

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- Use what we know about behavioural responses so people face strengthened work incentives:
  - parents with school age children,
  - people aged 55-70.
- The specific reforms in *Tax by Design* generate large increase in employment (see Chapter 4)
- People face stronger incentives at the times they are most responsive to them
- Reforms designed which redistribute mainly across the life-cycle
- Earnings tax system also puts us in a good place to take the strain of other parts of the reform package for tax system
  - indirect tax reform..

# Guidelines for indirect taxation

## 1. Tax final consumption only

- VAT generally achieves this
- Transaction taxes, business property taxes 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
  - Alcohol, tobacco, environmentally damaging products
  - Childcare
- Distributional arguments for differentiation are weaker

## Indirect Taxation In UK.

<b>Zero-rated:</b>	<b>Cost (£m)</b>
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 /supplies to people with disabilities	350
<b>Reduced-rated:</b>	
Domestic fuel and power	2,950
Residential conversions and renovations	150
<b>VAT-exempt:</b>	
Rent on domestic dwellings	3,500
Rent on commercial properties	200
Finance and insurance	4,500

UK has since moved from 17.5% to a 20% Standard Rate)

## Evidence on consumer behaviour => exceptions to uniformity

- childcare strongly complementary to paid work
- a few others (plus externalities)
- These do not line up well with existing structure of taxes
  - ⇒ broadening the base
- Compensating losers, even on average, is difficult
  - but can be done
  - use direct taxes and benefits
  - worry about *work incentives* too
- Simulate a broadening of the base

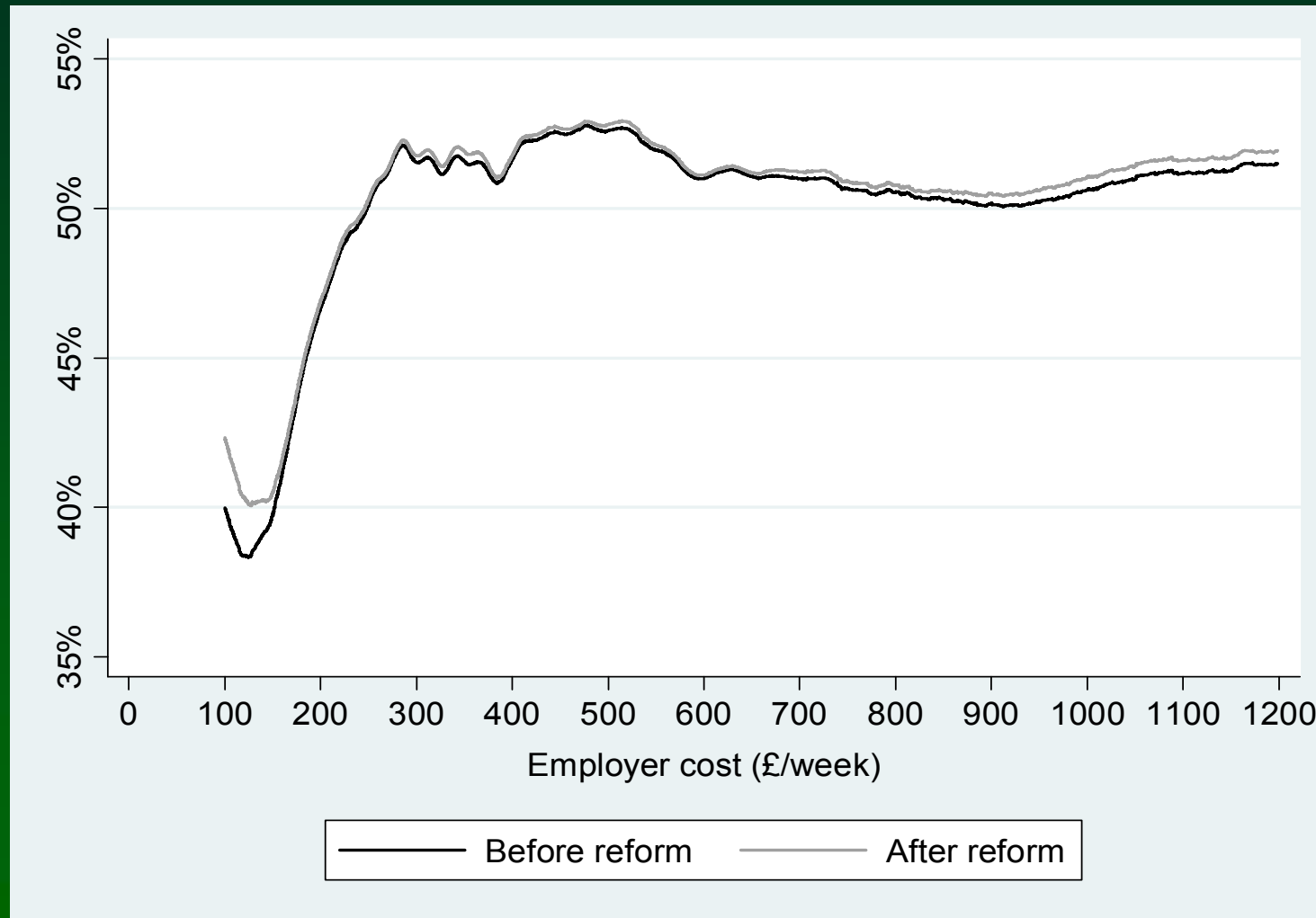
# 'Uniform' VAT reform: effects by income





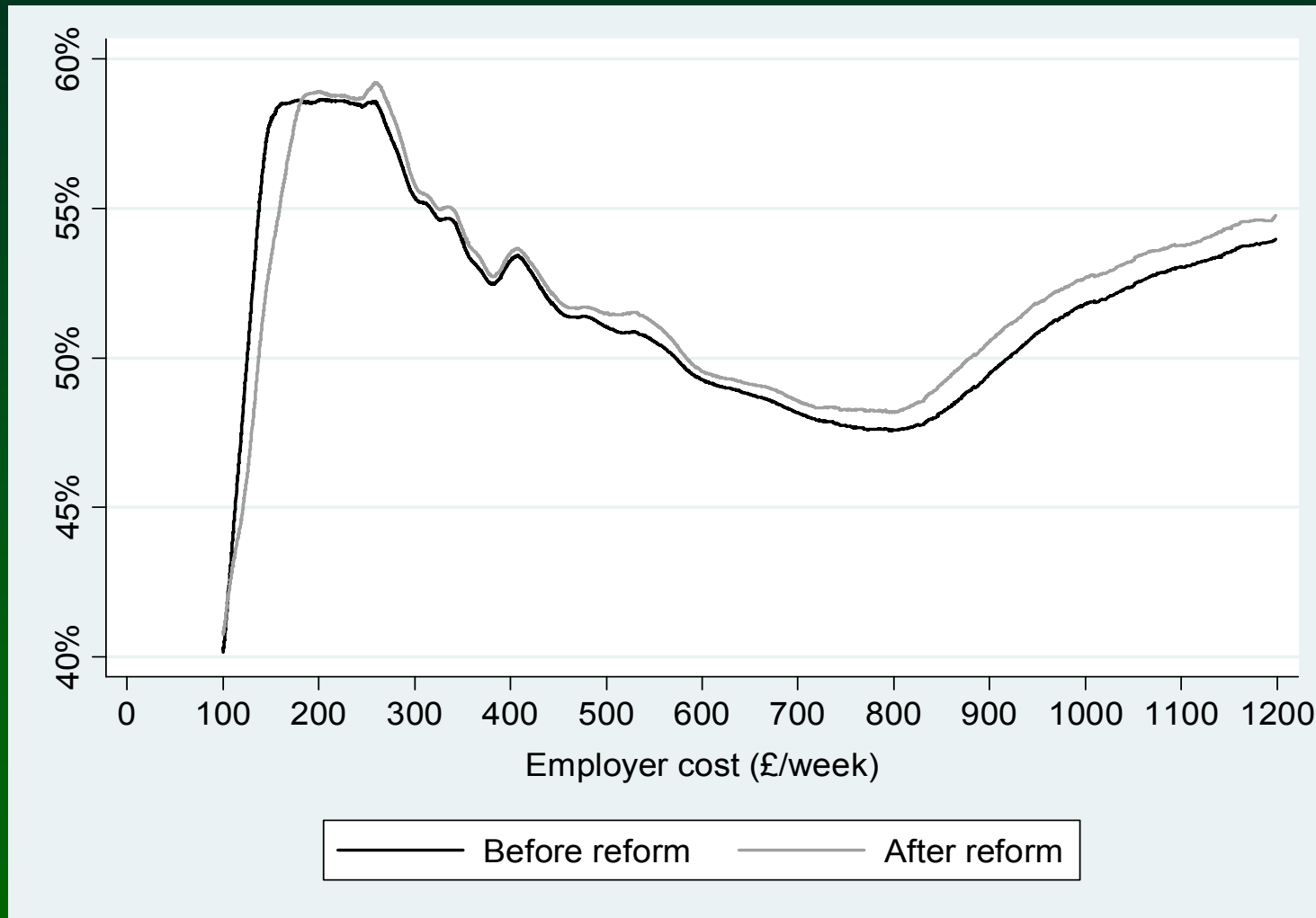
# VAT reform: incentive to work at all

## Participation tax rates



# VAT reform: incentive to increase earnings

Effective marginal tax rates



## Broadening the base of indirect taxation

- Empirical results suggest current indirect tax rates do not line up with any reasonable justification
- They are a poor way of delivering redistribution, given the other tax instruments available
  - implement a reform package that achieves compensation
  - while also avoiding significant damage to work incentives.
- Quite sizable welfare gains from removing distortions
  - around 1.5% of consumption

## Extra Slides

1. Taxation of land and property
2. Greenhouse gases and road transport

# Taxation of land and property

- Conceptually, must distinguish:
  - Business land
  - Business property
  - Domestic land
  - Domestic property
- And the fact that housing represents both an asset and a consumption good

William Vickrey:

*The property tax is, economically speaking, a combination of one of the worst taxes – the part that is assessed on real estate improvements...and one of the best taxes – the tax on land or site value*

# Land and property taxation: a summary

Current, ideal and proposed treatments

	Business	
Buildings	Business rates Don't tax No tax	
Land	Business rates Tax arbitrarily high Land value tax	

# Land and property taxation: a summary

Current, ideal and proposed treatments

	Business	Domestic
Buildings	Business rates Don't tax No tax	Council tax Tax like other consumption Housing services tax
Land	Business rates Tax arbitrarily high Land value tax	Council tax Tax arbitrarily high Housing services tax

# Greenhouse gases and road transport

- For GHG emissions a consistent price is the key – from taxes or trading
  - EU ETS is context for UK policy
- We are a long, long way from this ideal



# Implicit carbon taxes in the UK, 2009-10

Excluding VAT subsidy of domestic energy



# Greenhouse gases and road transport

- For GHG emissions a consistent price is the key
  - from taxes or trading
  - EU ETS is context for UK policy
- We are a long, long way from this ideal
- High taxes on driving in the UK are probably close on average to the externalities created
  - But very poorly targeted on much the biggest externality: congestion
- Road fuel taxes are important to the exchequer and to taxing the externality
  - Also unpopular, declining, and disappear if GHG targets are to be met
- Big benefits to national road pricing