



Institute for  
Fiscal Studies

## Taxation in the UK

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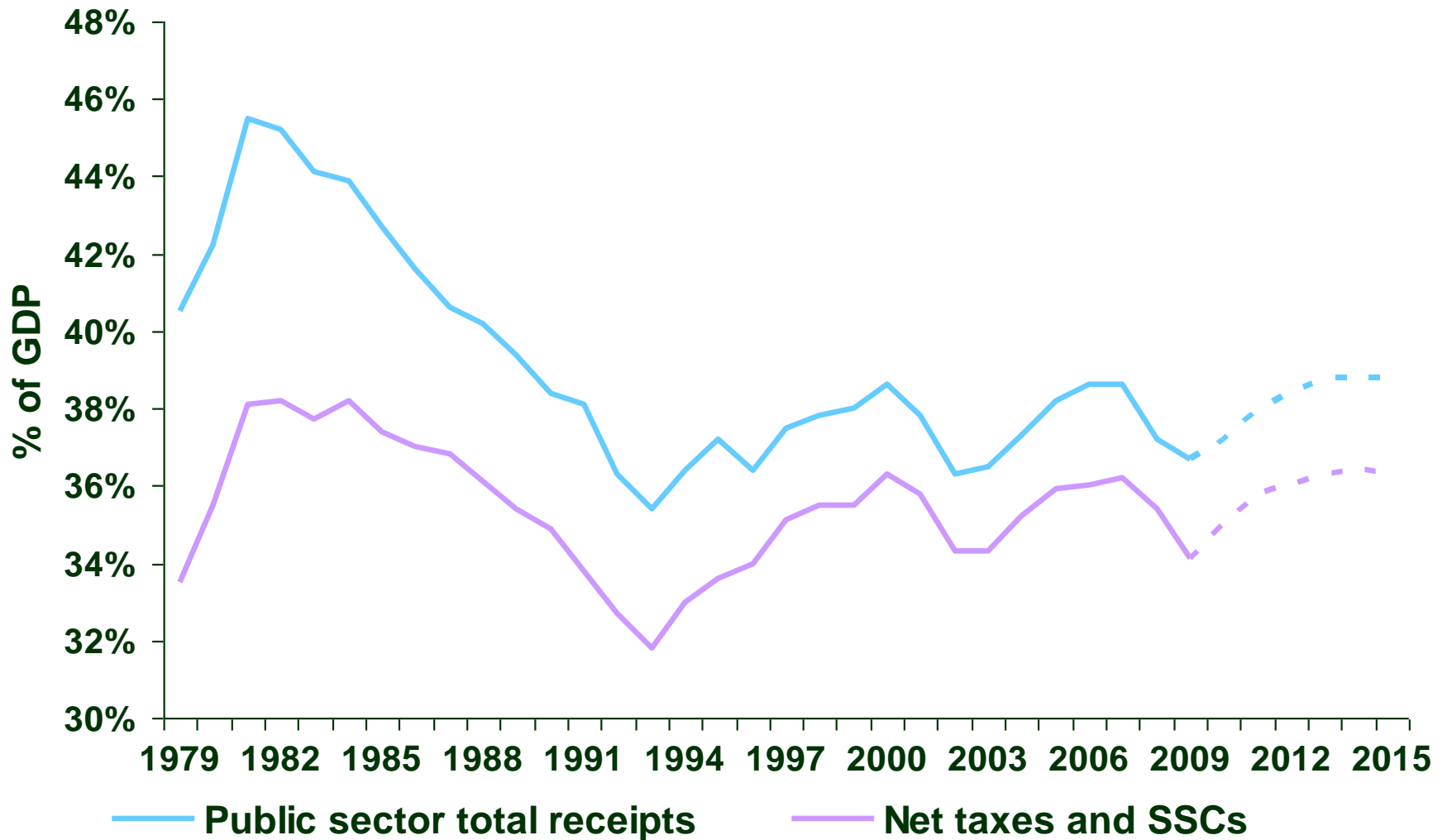
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# Outline

- Overview of the UK tax system in historical, international and theoretical contexts:
  1. Level and composition of revenues
  2. Structure of the major taxes
  3. Economic aspects of the overall tax (and benefit) system:
    - Effect on the income distribution
    - Effect on work incentives
    - How close to an expenditure tax?
- References
  - Survey of the tax system (more on 1 & 2) [www.ifs.org.uk/bns/bn09.pdf](http://www.ifs.org.uk/bns/bn09.pdf)
  - Adam, Browne and Heady (2010), chapter 1 of ‘Dimensions of Tax Design – The Mirrlees Review’, available from <http://www.ifs.org.uk/mirrleesreview/dimensions/ch1.pdf>

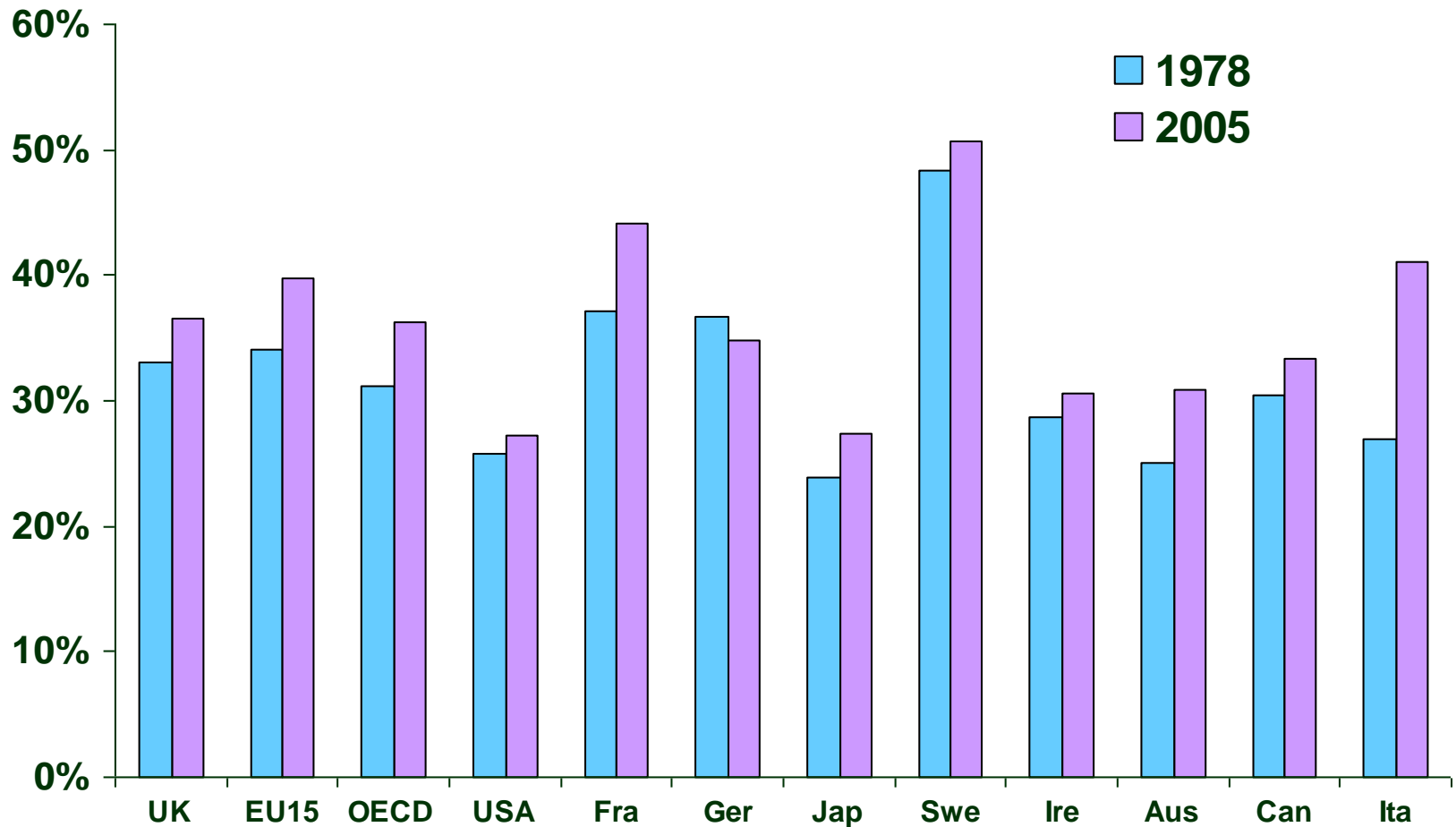
# The tax burden in the UK



Source: HMT

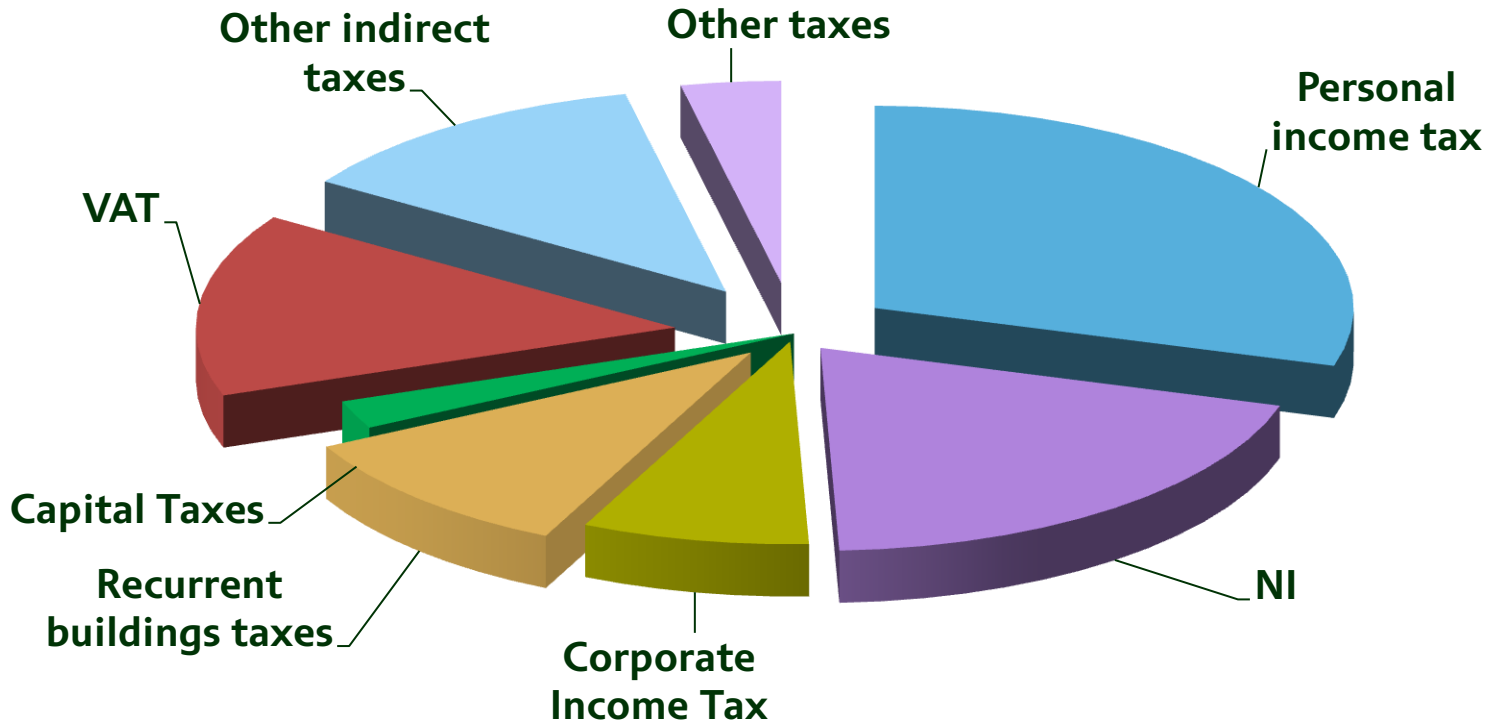
# Tax to GDP ratios

Taxes and social security contributions



Source: OECD

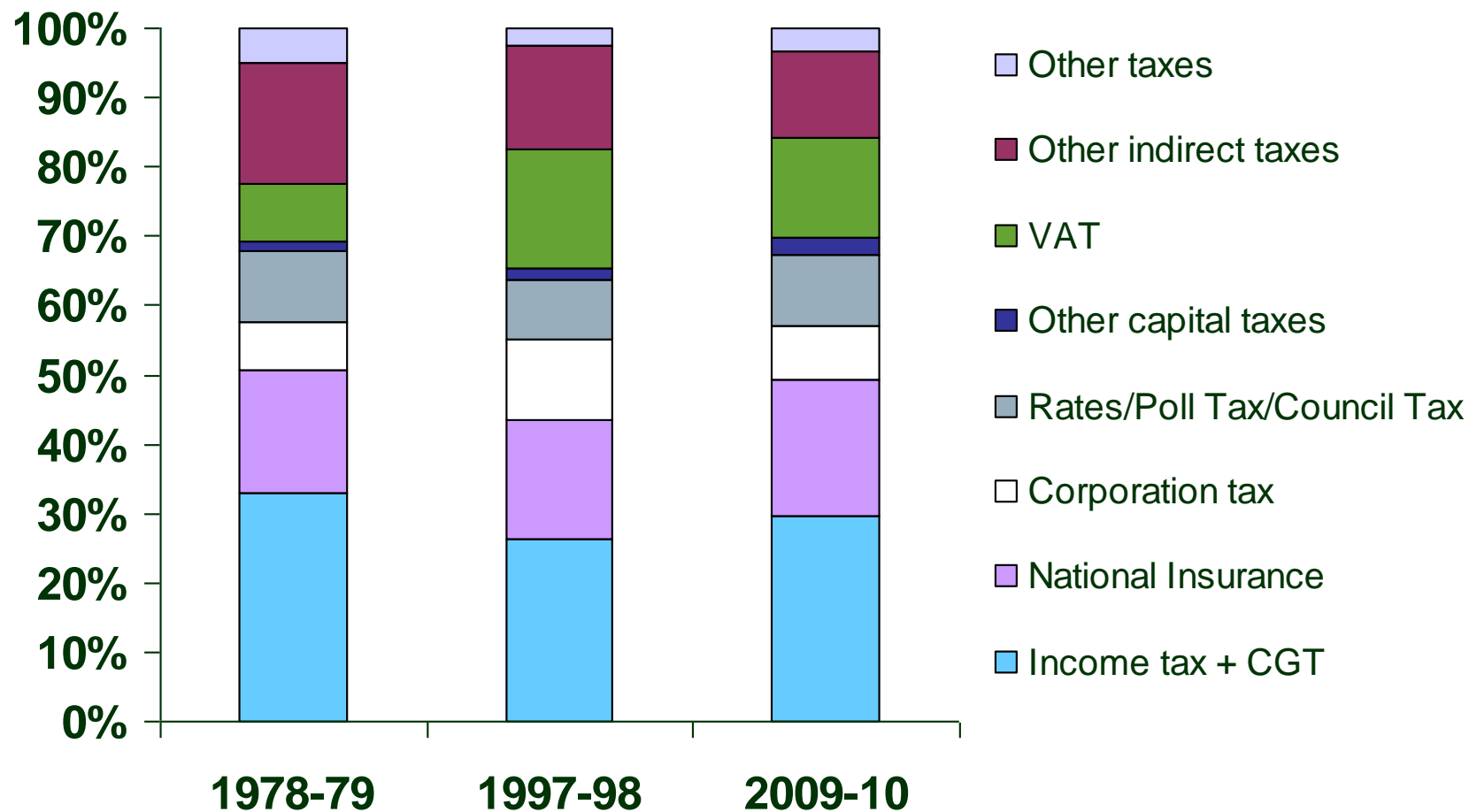
# Breakdown of net taxes and NICs, 2009-10



Source: HMT

# Composition of revenues

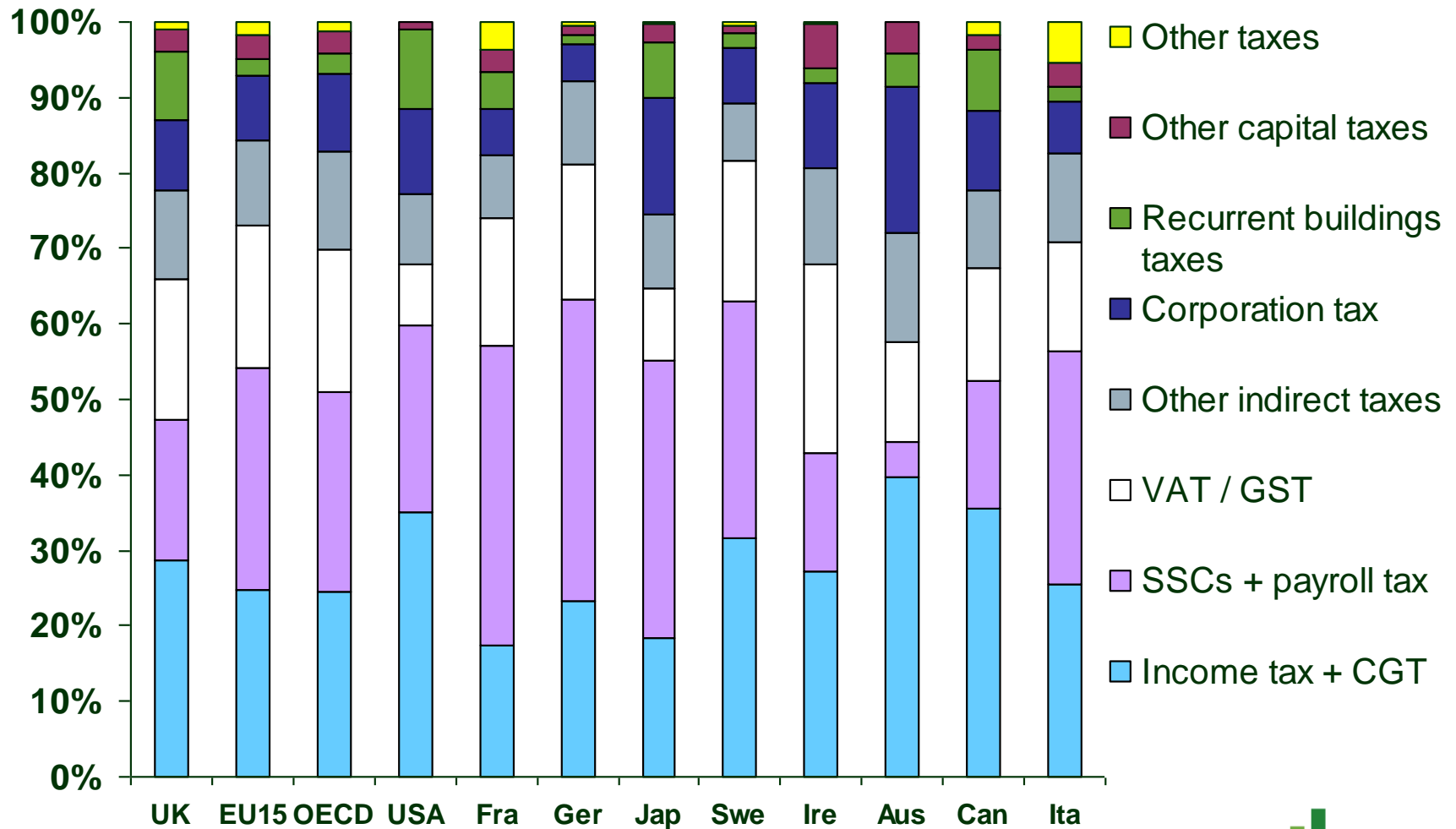
Net taxes and NICs



Source: HMT

# Composition of revenues, 2005

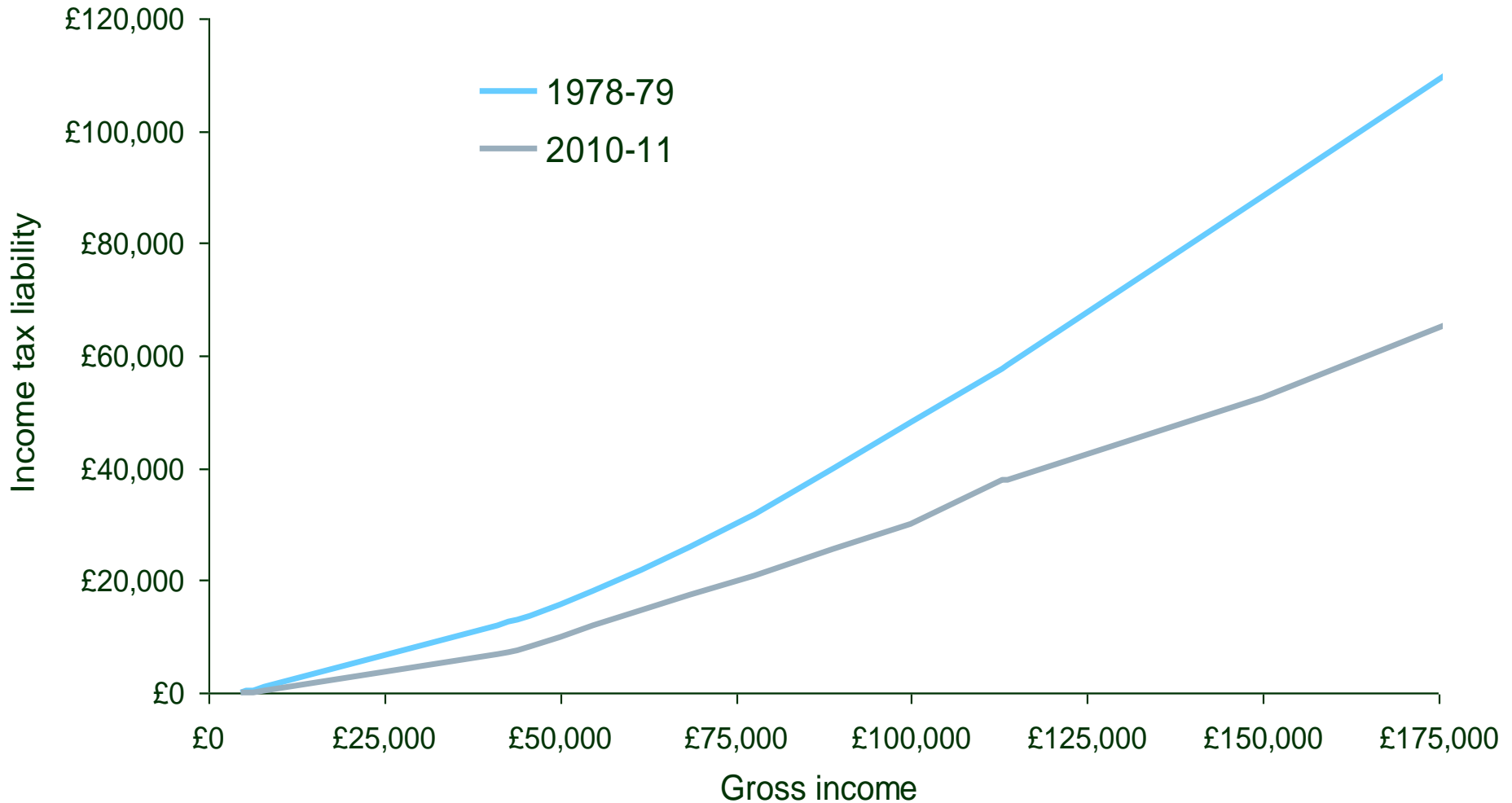
Taxes and social security contributions



Source: OECD

# Income tax schedule

For earned income, 2010 prices



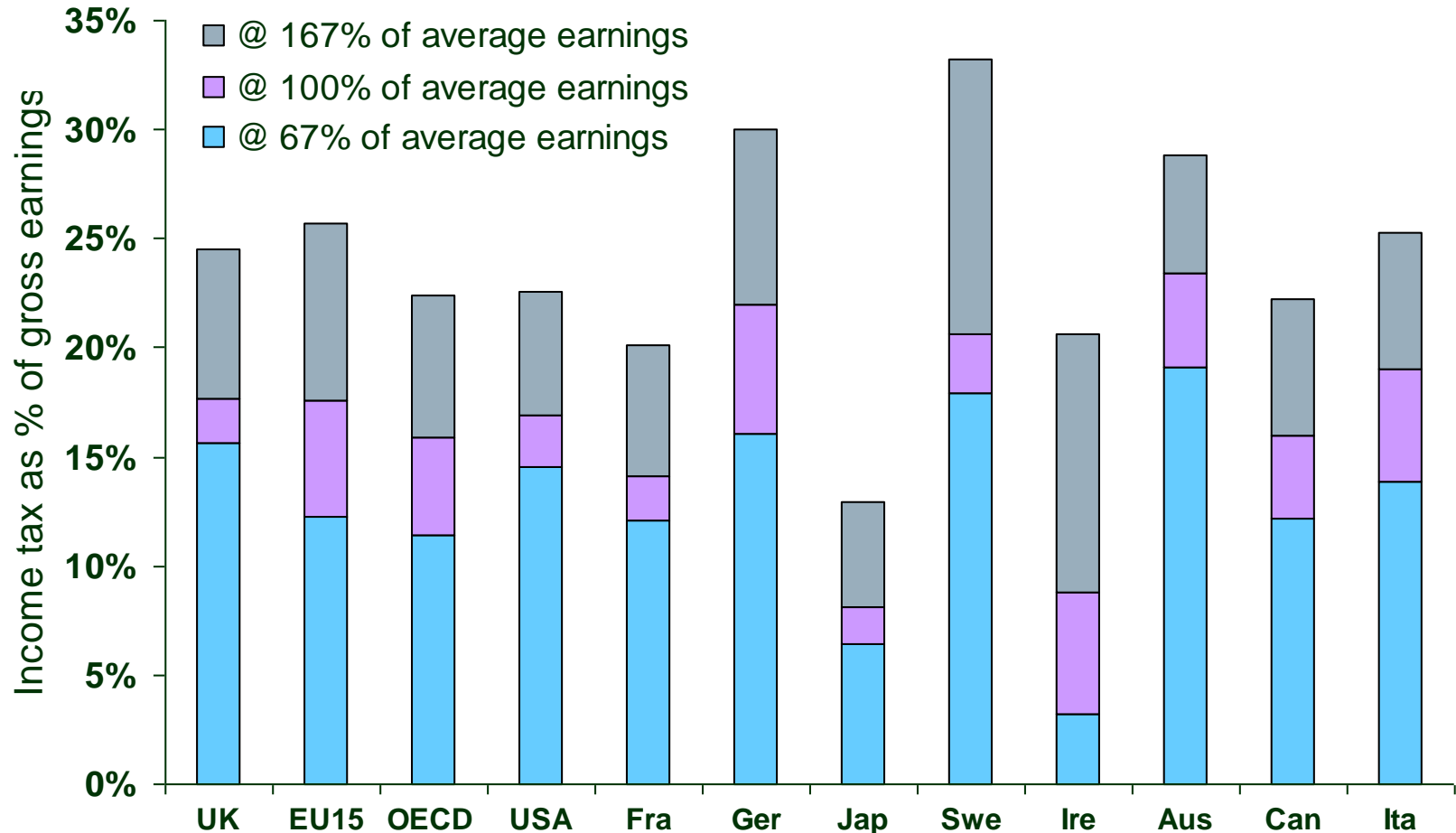


# Changes to income tax structure

- Big reduction in top rates (83/98% → 40%) between 1978 and 1988
  - the start of an international trend
  - partly reversed this year with 50% rate above £150,000
  - withdrawal of personal allowance above £100,000 creates small band where marginal income tax rate is 60%
- Reduction in basic rate (33% → 20%)
  - part of an international trend
- Large-scale fiscal drag
  - some increase in no. of taxpayers
  - massive increase in no. of higher-rate taxpayers

# The income tax burden, 2007

For single worker at multiples of average full-time earnings



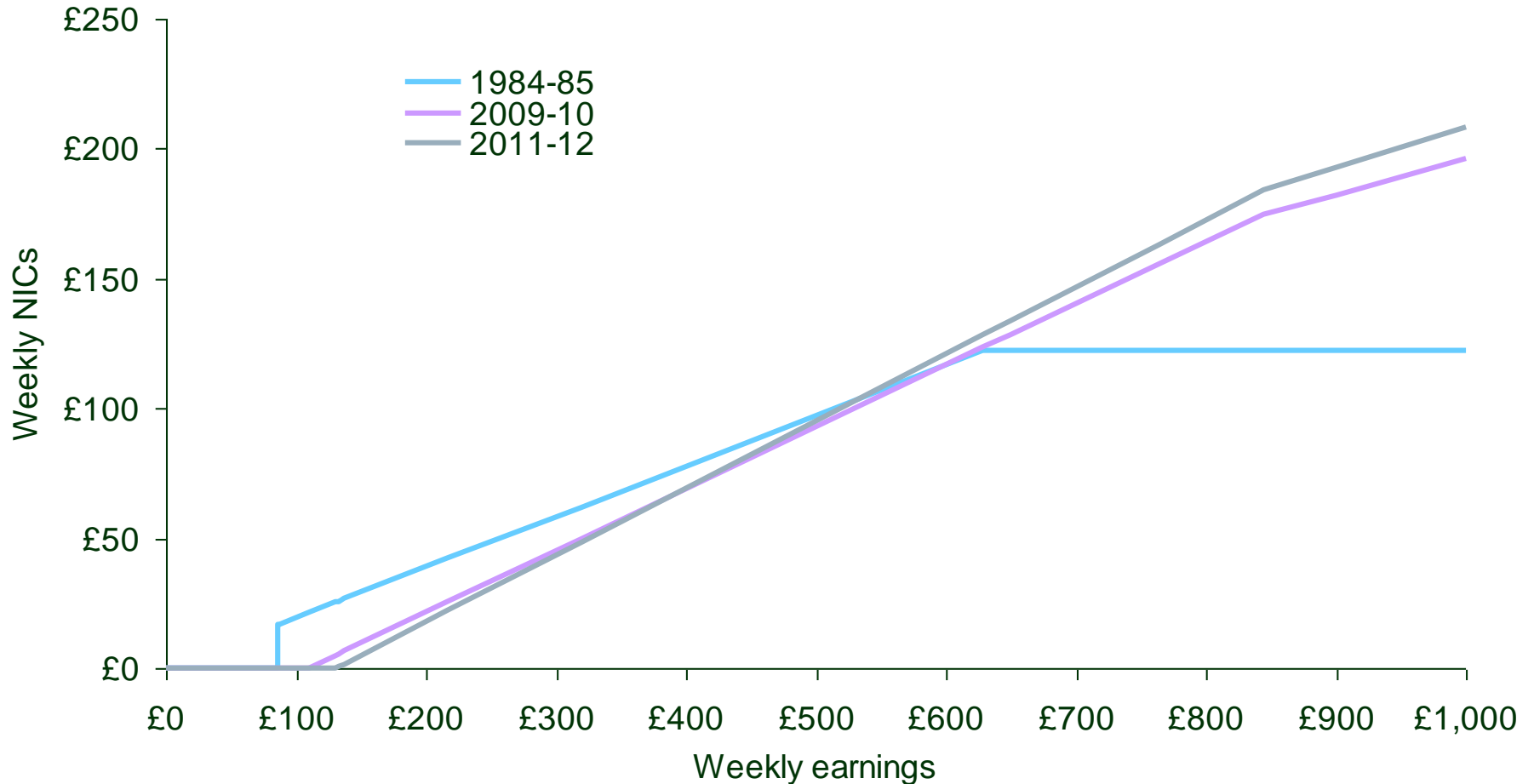
Source: OECD

# Changes to treatment of families

- Shift from joint to independent taxation in 1990
  - part of an international trend away from family taxation
- Abolition of additional tax allowances for married people and those with children
- Shift towards providing support for children and low earners through tax credits

# National Insurance schedule

Combined employer and employee NICs, 2010 prices



# Changes to National Insurance

More like income tax:

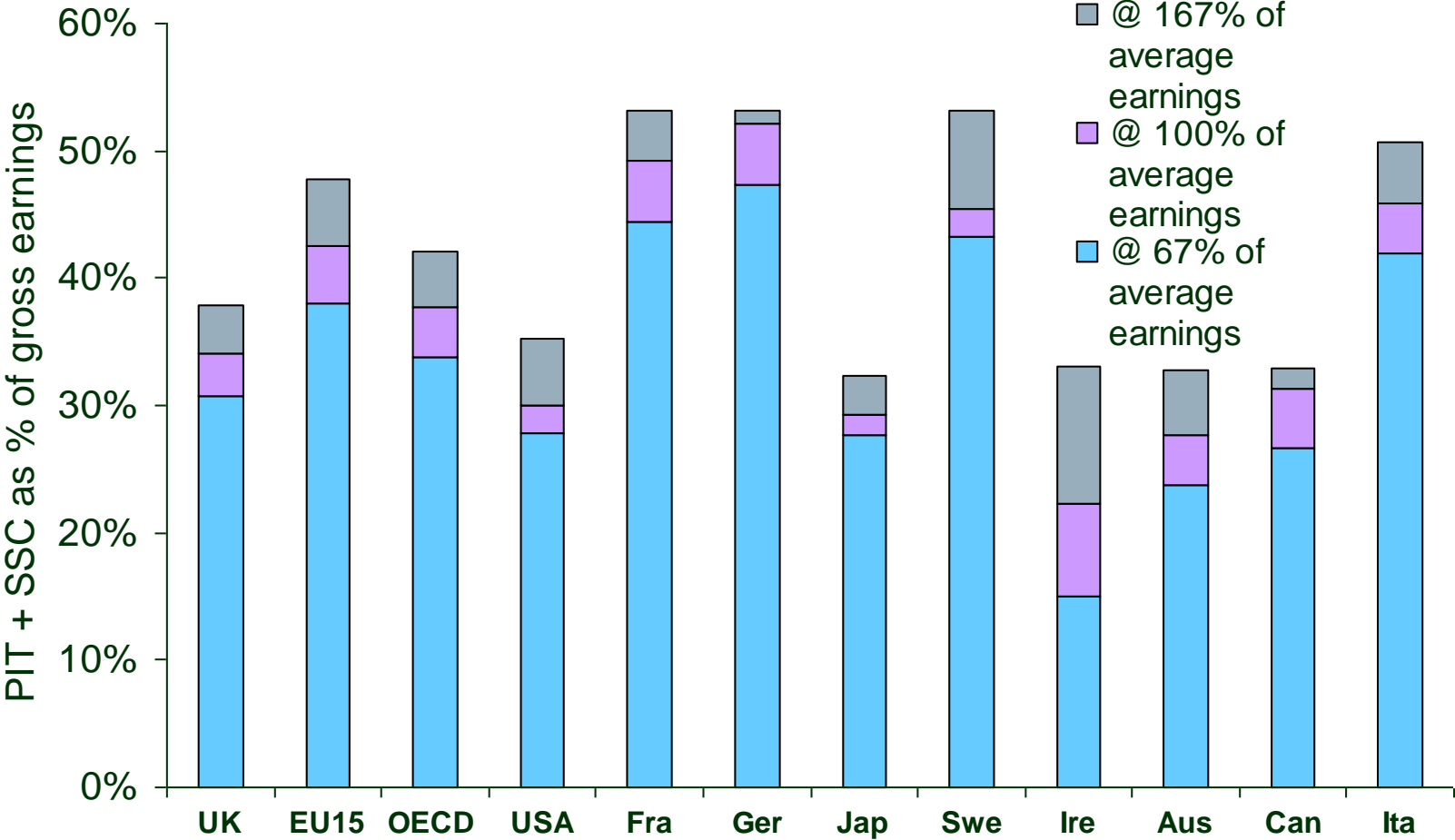
- Abolition of 'entry fee'
- Contributions now continue above the upper earnings limit
- Alignment of NI threshold with income tax personal allowance between 2001 and 2008
- Upper earnings limit aligned with income tax higher rate threshold since 2009
- Benefits in kind now subject to National Insurance
- Contributory principle undermined

# Social insurance and the contributory principle

- In Britain, National Insurance was traditionally closer to a Beveridge system – flat rate payments gave entitlements to flat rate benefits when out of work etc
- Link between contributions and payments has become less important over time, on both contributions and payments side
- Contrasts with Bismarckian system where insurance payments give entitlements to benefits that replace previous earnings
- This tends to require higher tax rates, but despite this may have smaller effect on work incentives

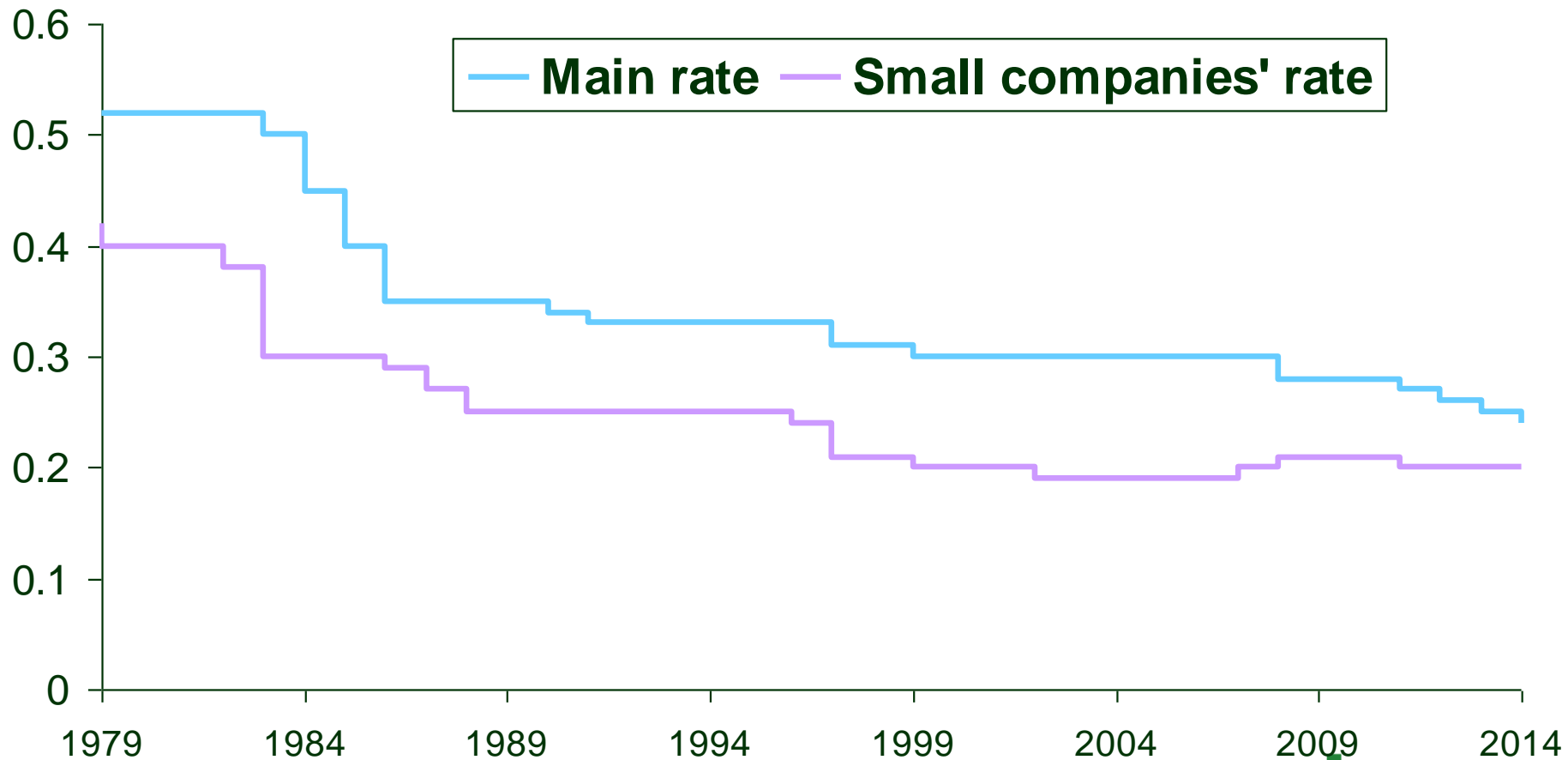
# Total burden of income tax and NI

For single worker at multiples of average full-time earnings



Source: OECD

# Main corporation tax rate



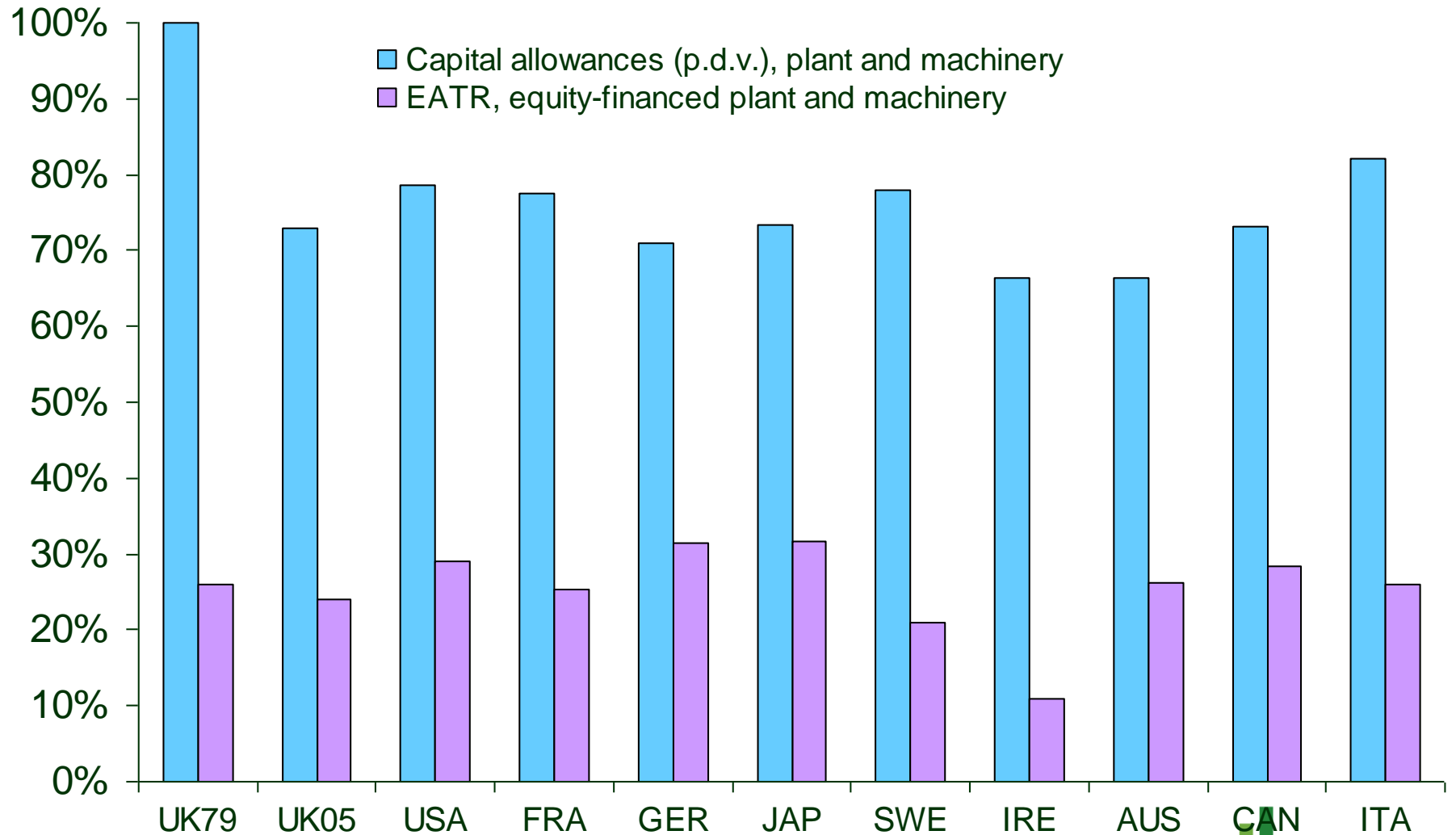


# Changes to corporation tax

- Main and small companies rates cut (52% → 24% by 2014, 40% → 20% from next year) , part of a continuing international trend
- Share of revenue kept up though
- This is partly because of reduced capital allowances
  - aim is to tax profits = revenue – expenses (includes capital consumption)
  - allowances exist to compensate companies for depreciation
  - difficult to know what the true economic rate of depreciation is though
  - allowances may not adequately compensate companies for depreciation of capital therefore (will return to this later)

# The corporate tax burden

Effective average tax rates and capital allowances 2005

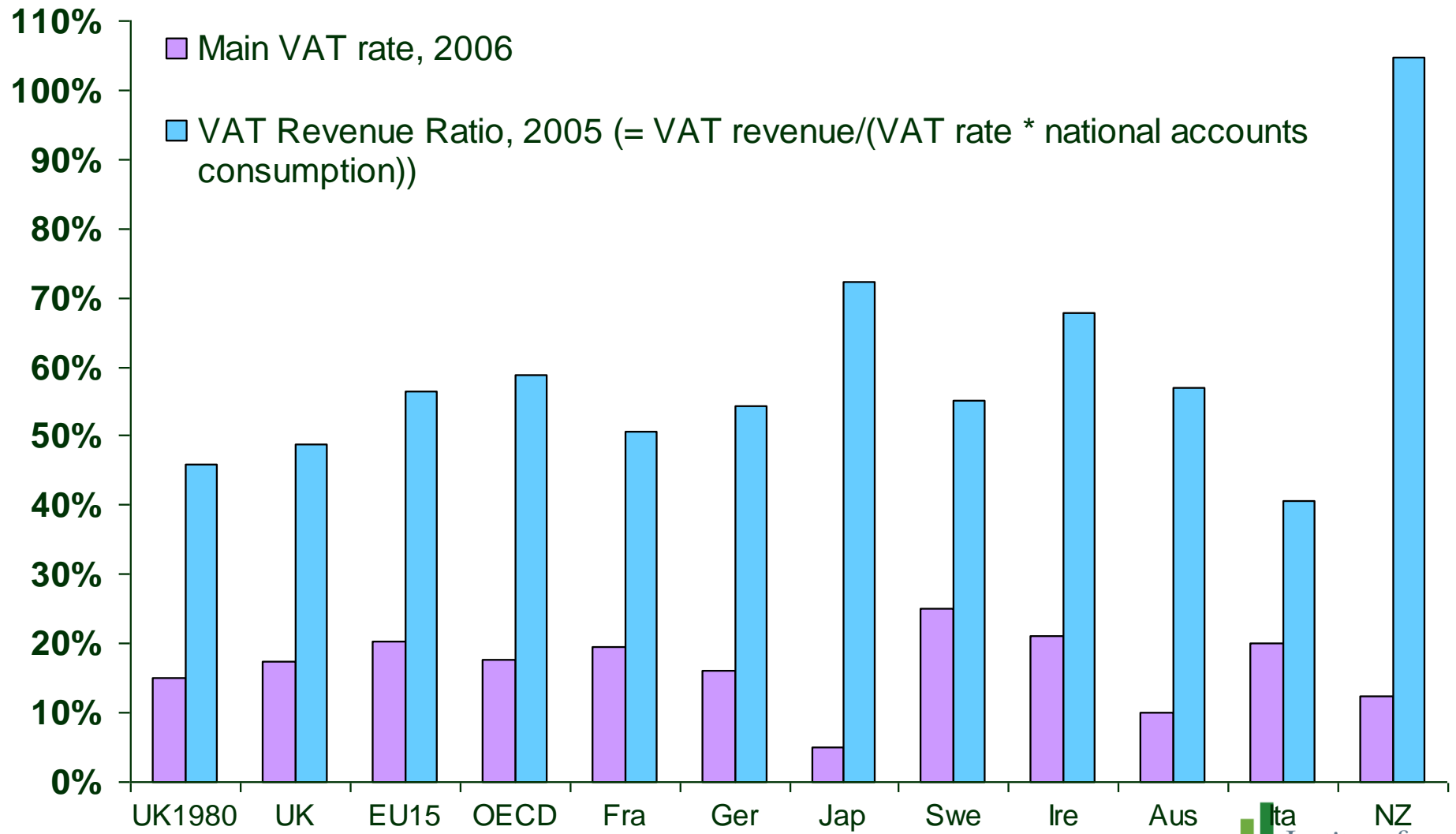


Source: Klemm (2005)

# VAT

- Main rate 8% → 15% in 1979 and → 17.5% in 1991
  - in both cases to pay for reductions in other taxes
  - further increase to 20% in January 2011 as part of deficit reduction package
  - part of international trend towards uniform VAT
- Atkinson and Stiglitz result from optimal tax theory – if there is weak separability between leisure and all other goods, uniform sales tax optimal
- But the UK has lots of zero rated items

# VAT rates and bases

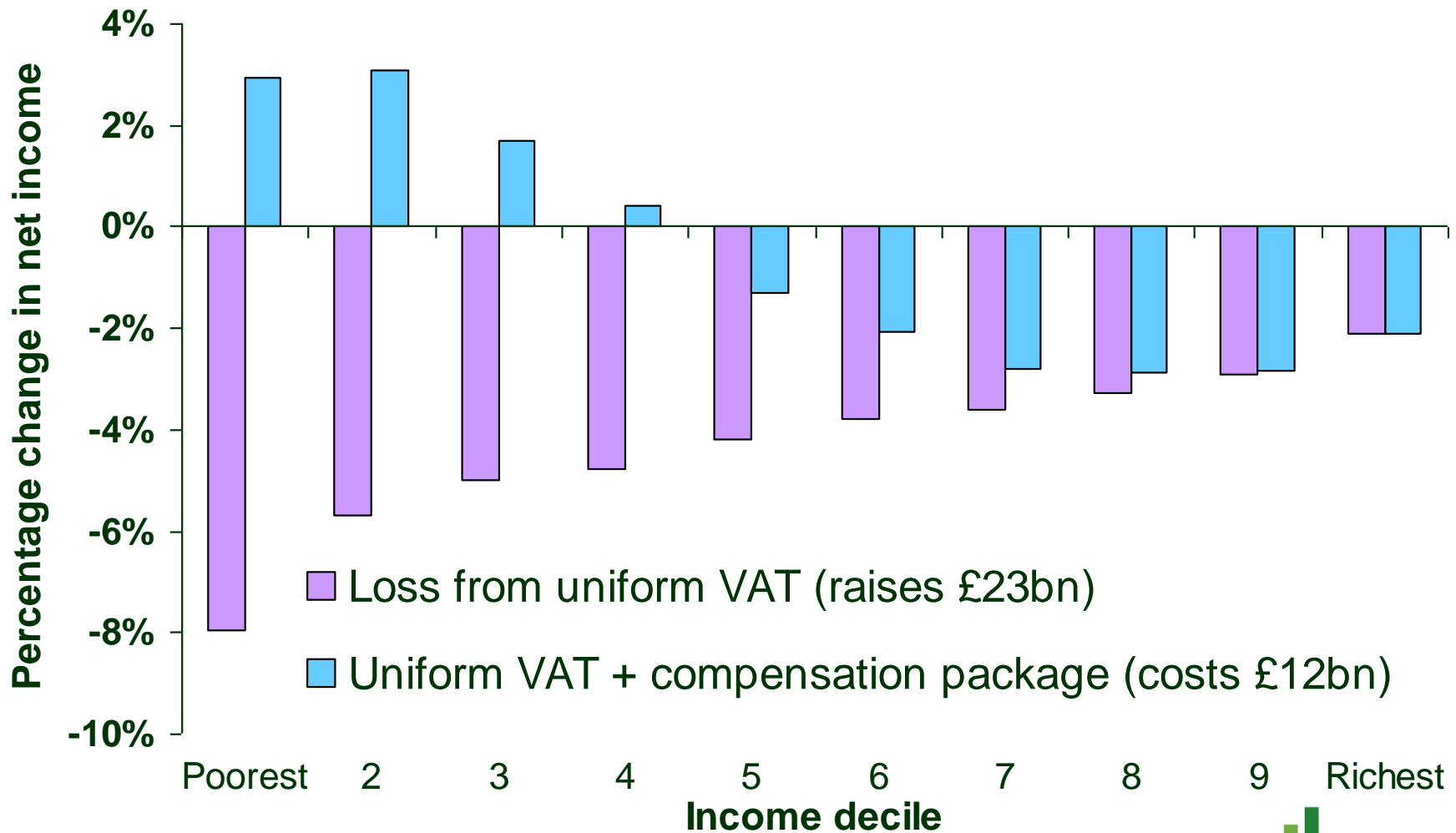


Source: OECD

# VAT

- Zero rating of items often defended on grounds of redistribution
- Atkinson-Stiglitz result shows that this argument is flawed - always better to use other means of redistribution (assuming consumption and leisure separable and ignoring externalities/merit good arguments)
- So taxing all goods uniformly and increasing a universal grant will always bring the system closer to optimality
- Submission to the Mirrlees review shows that it is possible to make VAT uniform, compensate the poor and still have £11bn left over...

# Distributional effect of uniform VAT and compensation package



Source: Crawford I., M. Keen and S. Smith (2010), 'Value added tax and excises', chapter 4 of 'Dimensions of Tax Design – the Mirrlees Review', <http://www.ifs.org.uk/mirrleesreview/dimensions/ch4.pdf>

# Excise duties

- Fuel, alcohol and tobacco
- Rates increased, yet share of revenues declined (as in most other countries)
- Fuel protests in 2000 led to lower rates of fuel duty
- Serious concerns about smuggling, especially with spirits
  - Believed that raising rates would not increase revenue
  - Rate frozen in cash terms 1997 – 2008
  - But may have also be because taxed more highly than wine & beer per unit of alcohol

# Environmental taxes

- Various new environmental taxes introduced:
  - Air passenger duty (1994, reformed with more bands in 2009)
  - Landfill tax (1996)
  - Climate change levy (2001)
  - Aggregates levy (2002)
  - London congestion charge (2003)
- None of these raised more than £2bn in 2009
  - compared with £26bn (+ VAT) from fuel duty



# Property / local taxes

- Council tax:
  - Based on property values (banded, no revaluation) with discounts for 1-person households and low-income families
  - UK's only local tax (councils set average rate only)
- Business rates:
  - Proportion of estimated market rent (unbanded, revalued) with discounts for businesses with low rents
  - Central government now sets the proportion
- Lyons enquiry into possible reforms to council tax in 2007
  - Suggested revaluation, more council tax bands, maybe allocating a proportion of income tax revenues to councils
  - No sign of any of this being implemented though

# Part of an international trend?

## YES:

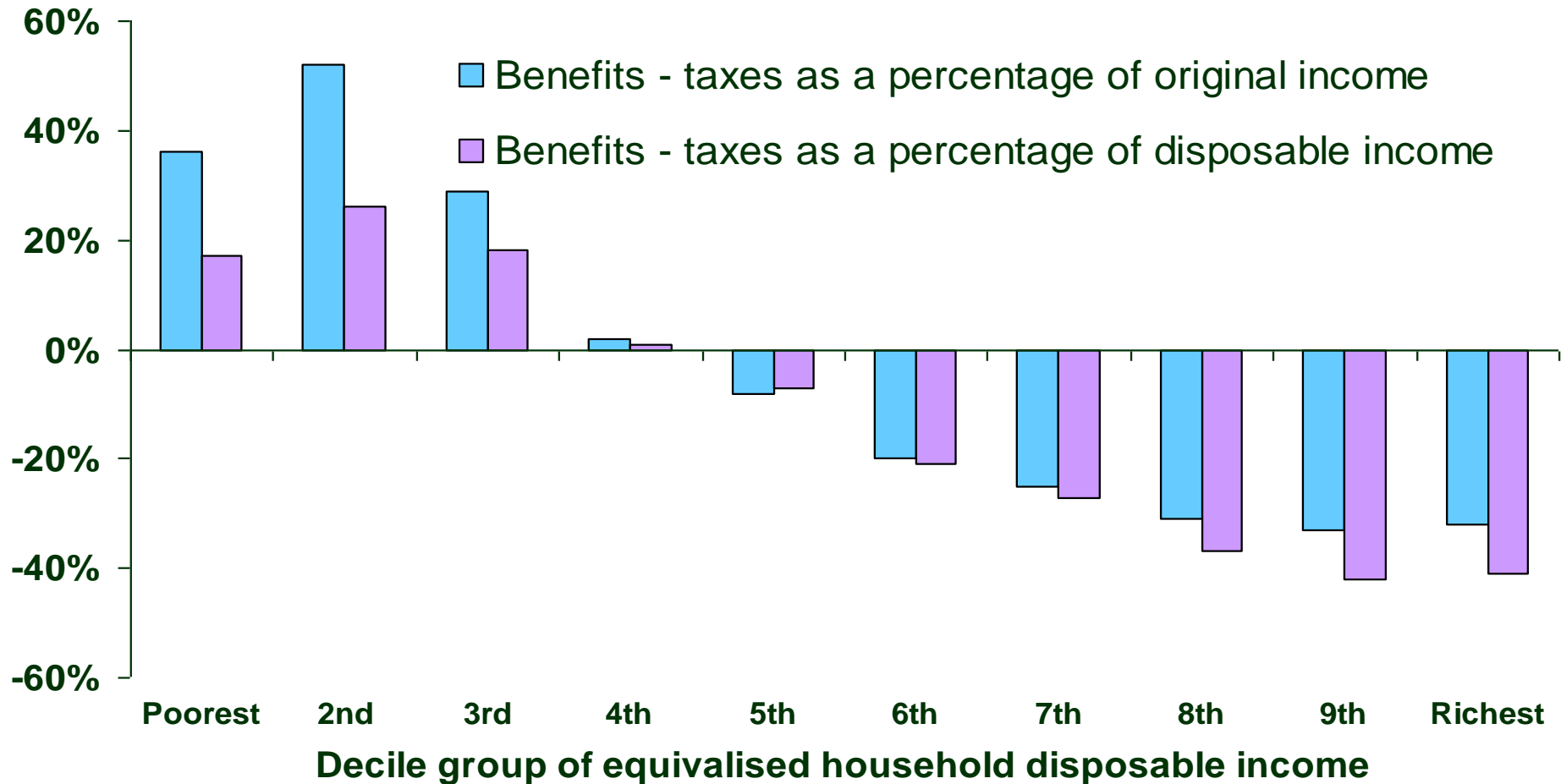
- Cuts in top and basic rates of income tax
- Shift from duties on specific goods towards VAT
- Corporate tax rates cut, base broadened
- Shift from family to individual taxation
- In-work support through the tax system
- SSC rates up even as PIT rates down
- Introduction of environmental taxes

## NO:

- Unusual in removing mortgage interest relief
- Increasing centralisation not matched elsewhere

# Distributional effect of the tax and benefit system, 2008–09

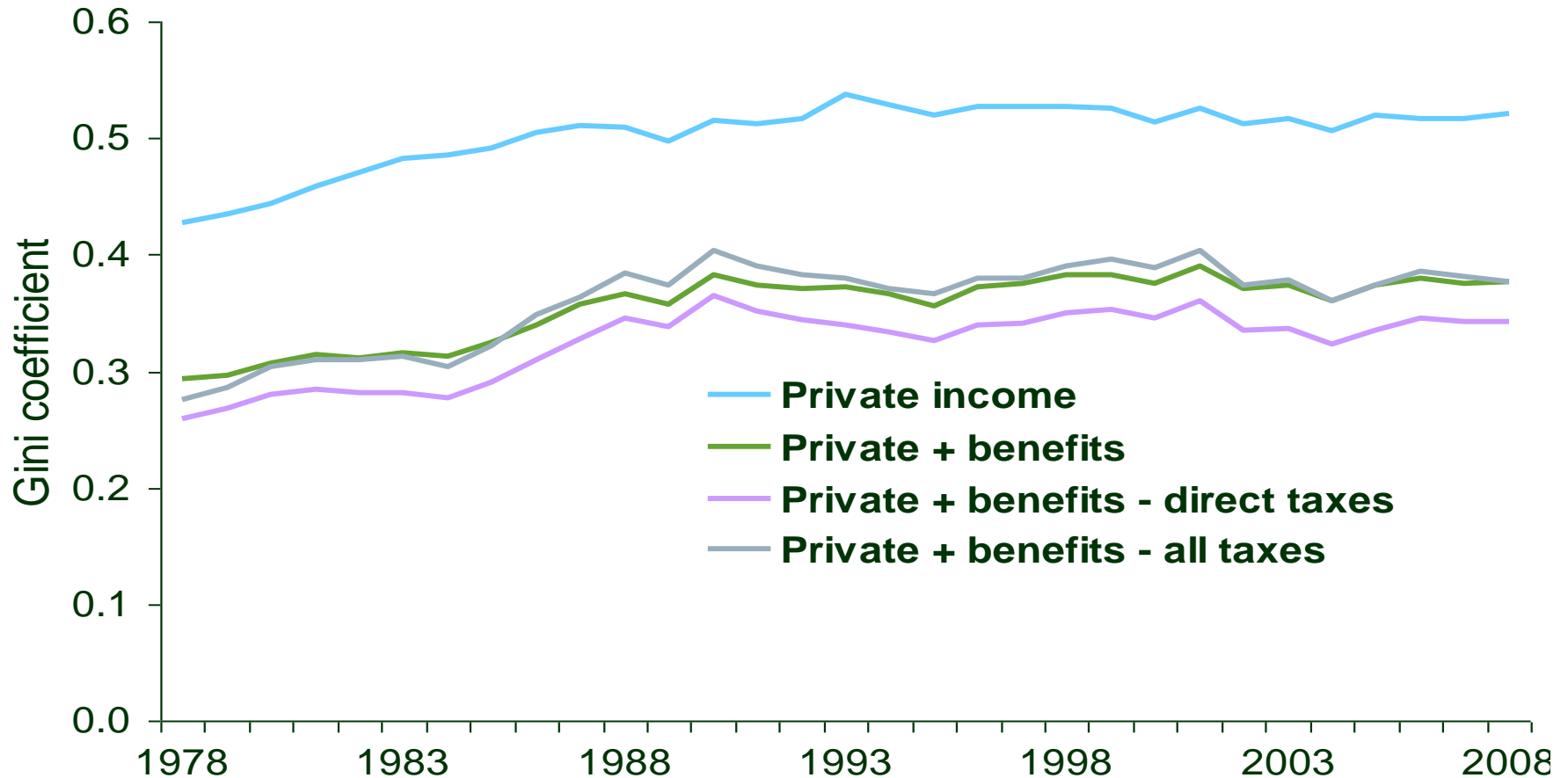
Excluding most 'business taxes'



Source: Barnard, (2010), 'The effect of taxes and benefits on household income', Economic and Labour Market Review vol.4 no.7.

# Effect of tax and benefit system on income inequality

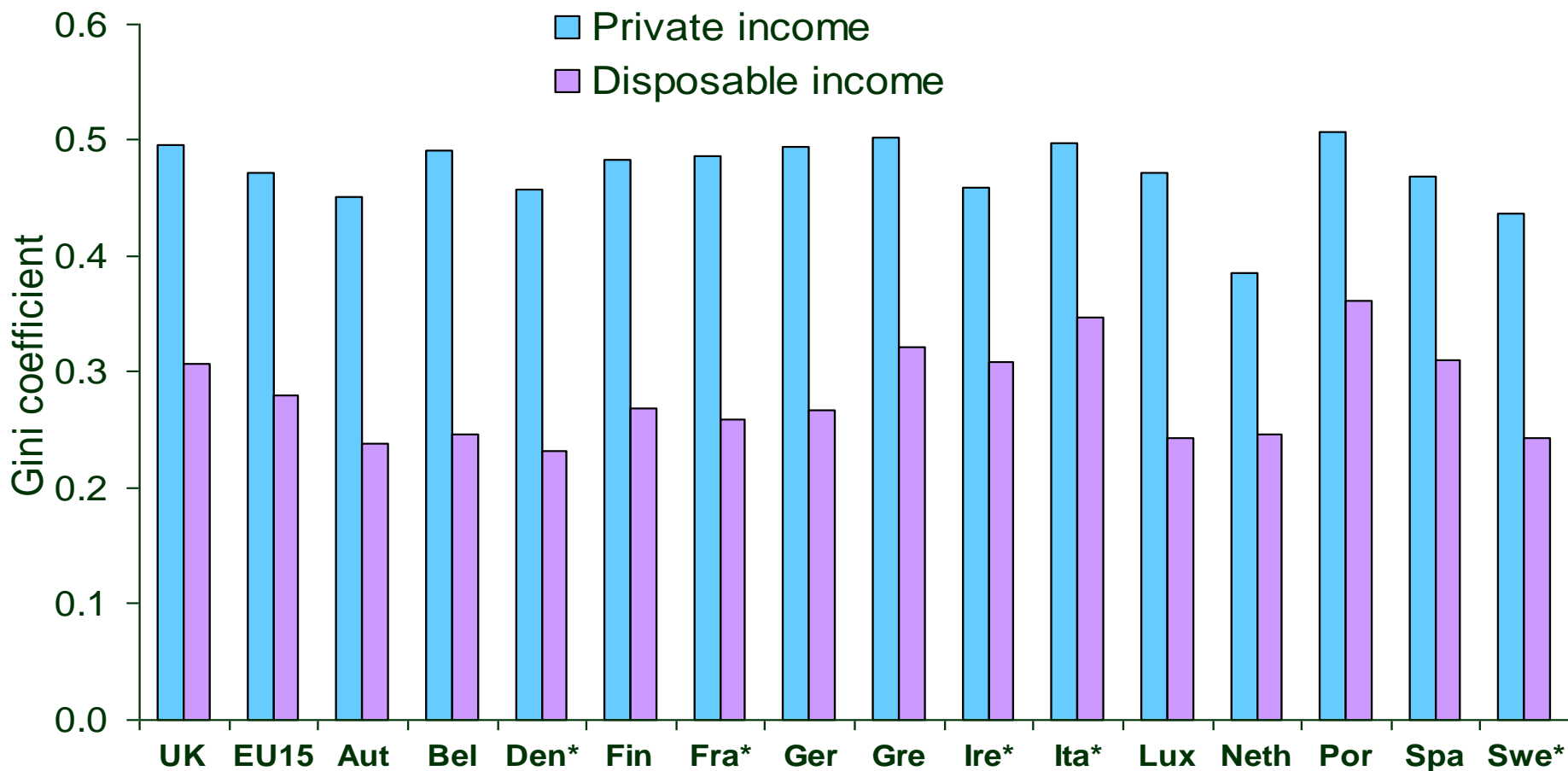
Excluding most 'business taxes'



Source: Barnard, (2010), 'The effect of taxes and benefits on household income',  
Economic and Labour Market Review vol.4 no.7.

# Effect of tax and benefit system on income inequality

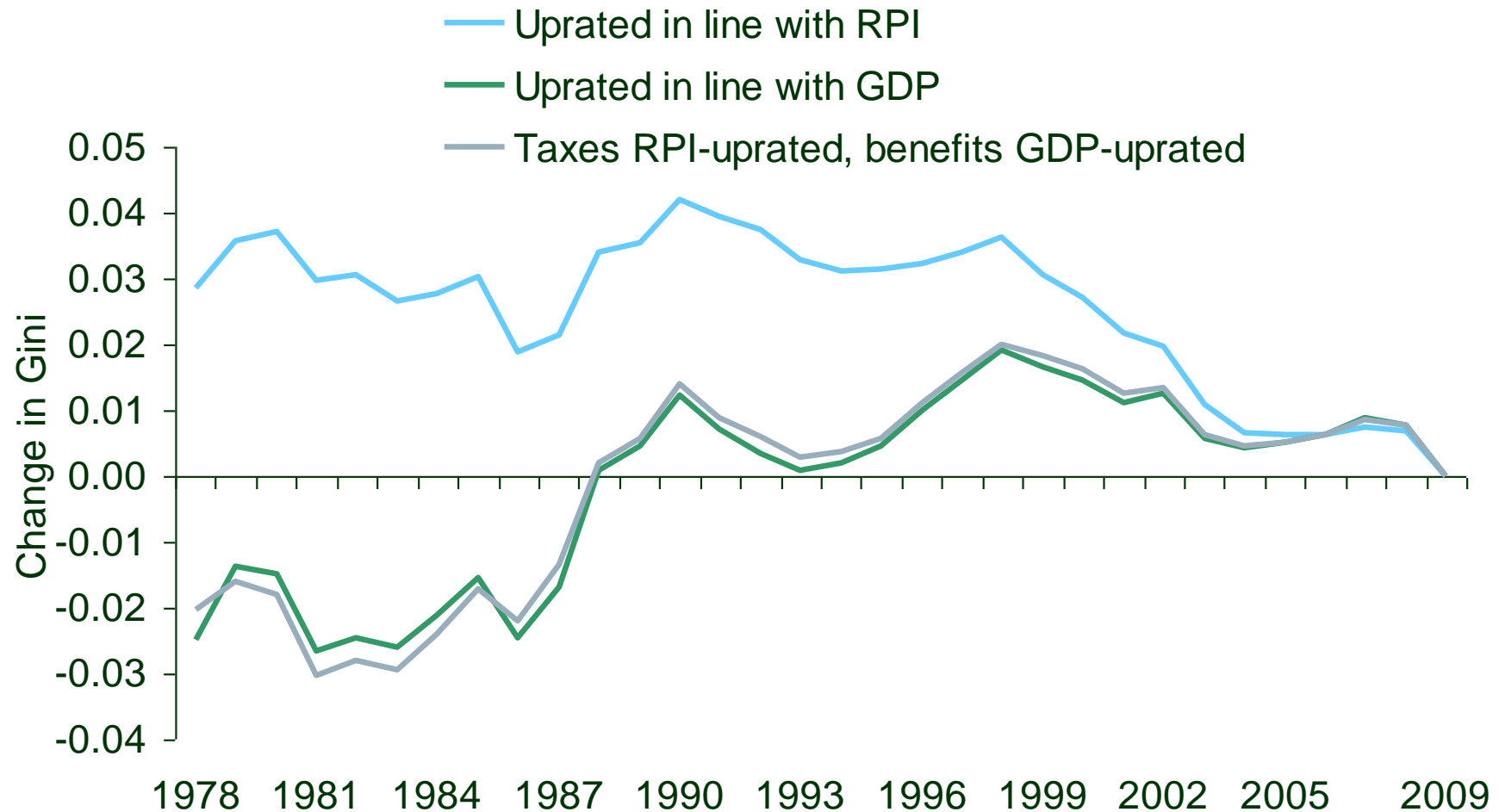
2003, personal taxes and benefits only



Source: EUROMOD statistics: <http://www.iser.essex.ac.uk/msu/emod/statistics>

# Effect of tax and benefit changes on income inequality

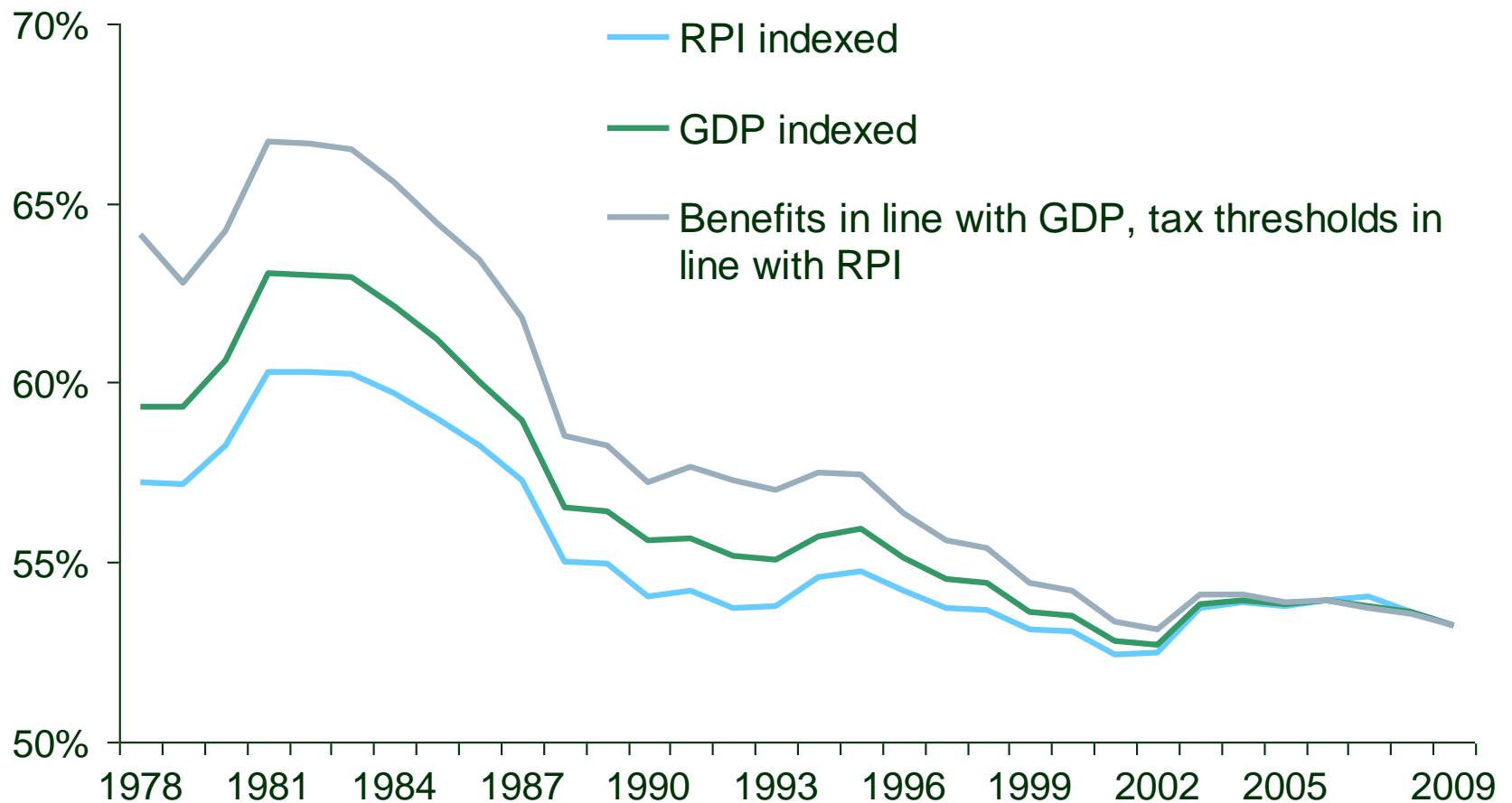
Personal direct taxes and benefits only, 2005-06 population



Source: Adam and Browne (forthcoming), 'Redistribution, work incentives and thirty years of tax and benefit reform', IFS Working Paper

# Mean participation tax rates

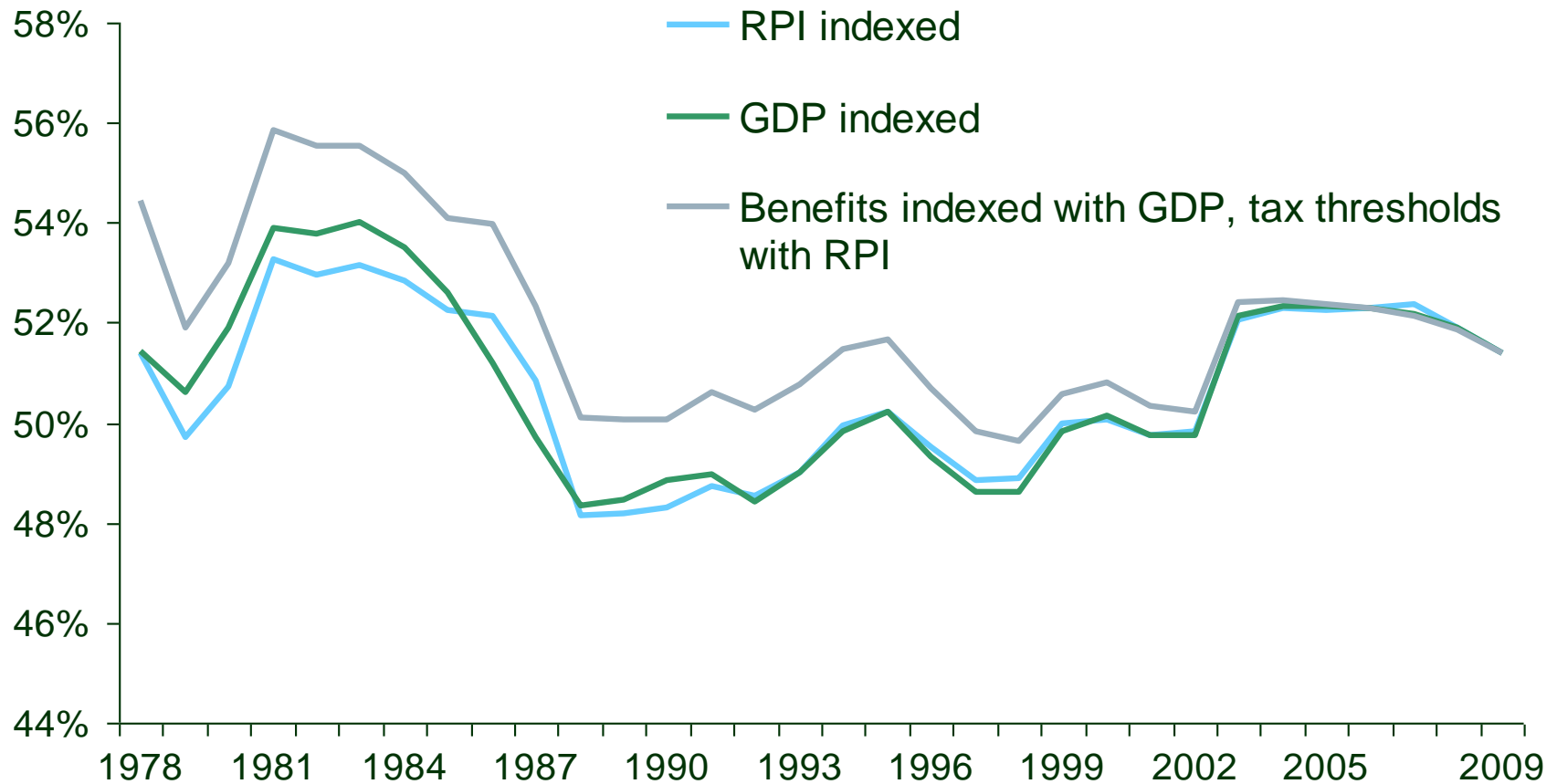
Personal taxes and benefits only



Note: In work incomes for non workers calculated as described in Adam and Browne (forthcoming)

# Mean effective marginal tax rates

Personal taxes and benefits only

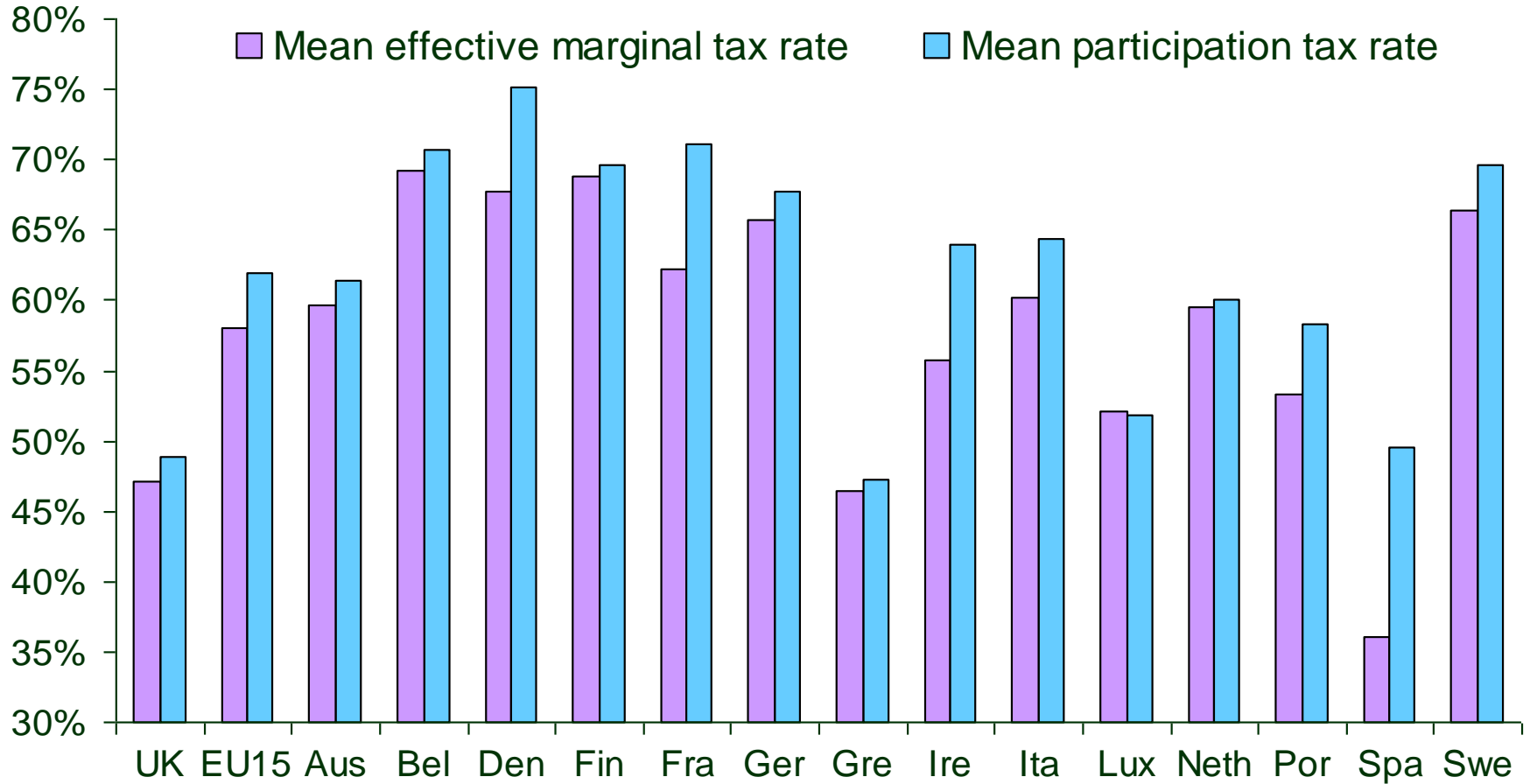


Note: Workers only. See Adam and Browne (forthcoming) for more details



# Work incentives among workers

1998, personal taxes and benefits only



Source: Immervol, Kleven, Kreiner and Saez (2005)

# Taxation of savings

- Atkinson-Stiglitz result again – uniform commodity taxation implies tax on consumption should be the same in both periods (again, if leisure and consumption weakly separable)
- This implies a zero net tax rate for savings
- This is called an expenditure tax
- Caveats
  - ignores the fact that there is labour income in different periods – no reason that leisure in different periods should have same tax schedule
  - may be optimal to have age-specific schedules or make future tax schedule conditional on current decisions
  - But even so, difficulty of taxing all forms of capital income equally may mean uniform rate of zero is desirable

# Expenditure tax - implementation

- Not just a sales tax – can be progressive
- Remember that  $C = Y - S$
- Two ways of implementing it
  - **EET treatment:** e.g. pensions in the UK (almost)
    - Contributions: **E**xempt from tax (or tax relief on contributions)
    - Returns: **E**xempt from tax
    - Withdrawals: **T**axed (on whole amount)
  - **TEE treatment:** e.g. ISAs
    - Contributions made out of: **T**axed income
    - Returns: **E**xempt from tax
    - Withdrawals: **E**xempt from tax
- Identical if investments zero net present value

# Expenditure tax at the corporate level

- Various ways of operating it:
  - 100% first year capital allowances (i.e. count all investment as an expense when first made, but no depreciation allowances)
  - used to have this in the UK for plant and machinery
  - capital allowances that reflect true economic depreciation
  - Allowance for Corporate Equity – allow dividends that represent the normal return to capital as an expense (but no capital allowances)

# How close is the UK to an expenditure tax?

- ISAs, owner occupied housing, durables have TEE treatment
- Pensions have what is sometimes called EEt treatment (tax free lump sum of 25%)
- This covers almost everything for most people
- But other savings accounts and shares have TTE treatment
- This is just in income tax though: need to consider
  - Council tax (taxing returns from housing)
  - Stamp duty (transactions based tax)
  - Inheritance Tax (if bequests not accidental)
  - Means tested benefits effectively impose a high rate of tax on saving

## Effective tax rates on different forms of saving over a 25 year period

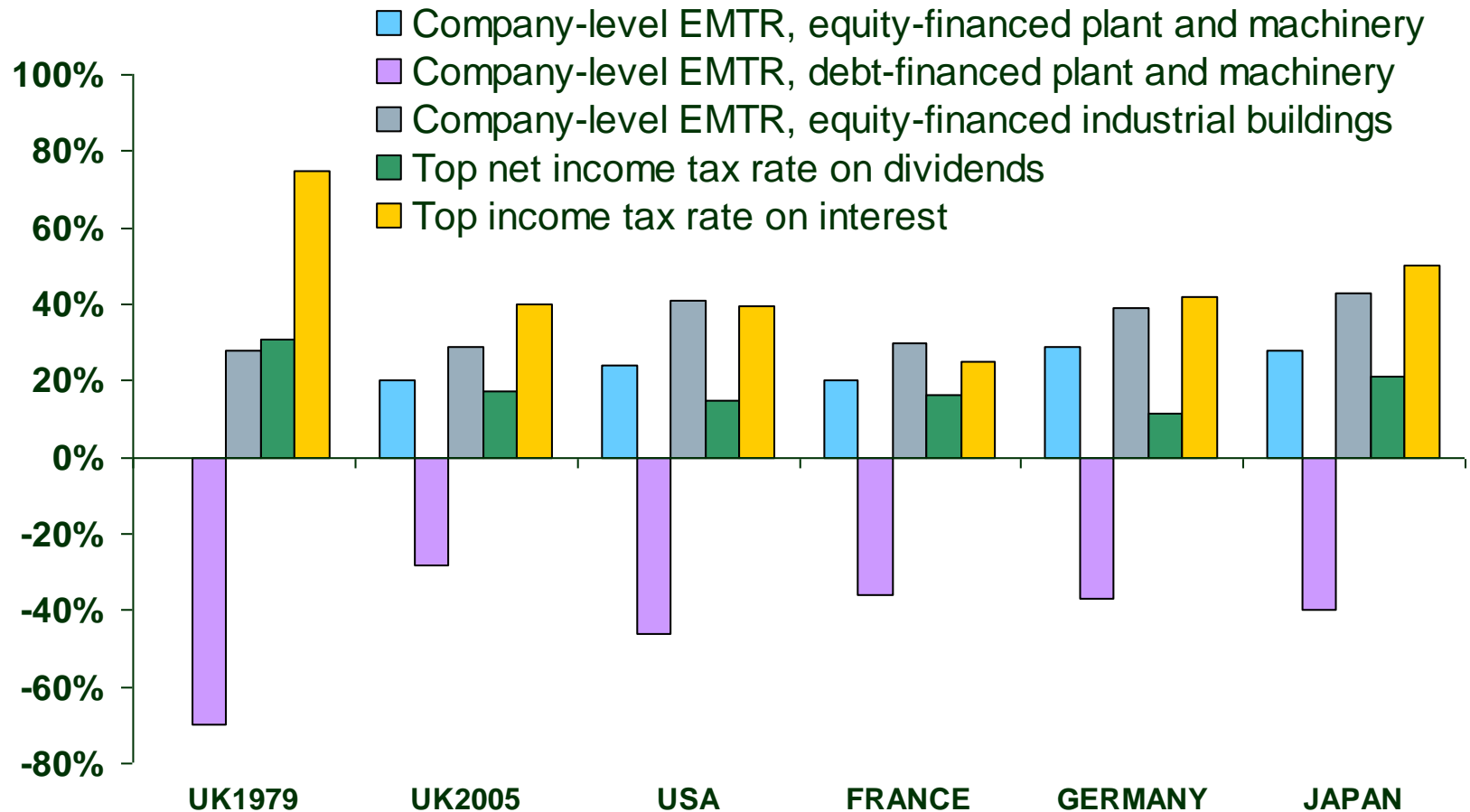
Asset	Effective tax rate (%) for:	
	Basic rate taxpayer	Higher rate taxpayer
ISA, owner occupied house	0	0
Other savings account	33	67
Pension (own contribution)	-8	-21
Pension (employer contribution)	-49	-40
Buy to let housing	28	48
Direct equity holdings	7	33

Note: various assumptions – see Adam, Browne and Heady (2010) for details

But EET structure of pensions can make them very (un)attractive...

Rate in work	Rate when retired	Effective tax rate (%) for:	
		Own contribution	Employer contribution
Basic rate	Basic rate	-8	-45
Higher rate	Higher rate	-21	-40
Higher rate	Basic rate	-48	-67
Basic rate	Pension credit taper	18	-19
Basic rate and tax credit taper		-74	-136
	Basic rate	-102	-163

# Tax rates on investments



Source: Klemm (2005)



# Changes to treatment of savings

Closer to uniform tax-free treatment at personal level:

- Uniform rate of zero for pensions, ISAs, durables
- Removal of tax relief on life assurance and mortgage interest (EEE treatment)
  - The removal of mortgage interest relief is an achievement that few countries have been able to emulate

Further away from expenditure tax at corporate level:

- 100% capital allowances for plant & machinery ended

# Summary

- Some successful attempts to reform the tax system in recent years, but still many areas in need of reform
- Debatable to what extent tax and benefit reforms are responsible for increased inequality
- Tax and benefit changes have improved the incentive to work at all, but left effective marginal tax rates unchanged overall
- Closer to expenditure tax treatment at the personal level, further away at corporate level