## Short run responses to the new 50\% income tax rate in the UK

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## What's coming up

- Policy background
- Bunching at new tax thresholds
- Changes in aggregate incomes around the time the tax rate was introduced


## Policy background (1)

- As in many other OECD countries, top rate of income tax cut during 1980s
- Fell from $83 \%$ to $40 \%$ for earned income, $98 \%$ to $40 \%$ for unearned income


## Top tax rates and income shares, 1978-2003



Sources: Income share from Atkinson (2007), marginal tax rates from Brewer, Saez and Shephard (2010).
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## Policy background (1)

- As in many other OECD countries, top rate of income tax cut during 1980s
- Fell from $83 \%$ to $40 \%$ for earned, $98 \%$ to $40 \%$ for unearned income
- Reduced marginal tax rate for top 1\%, but not next-richest 4\%
- Top income shares also increased during this period
- Particularly for top 1\%, but also next-richest 4\%
- But a gradual change - no big jumps in incomes of richest 1\% following tax cuts in 1979 and 1988
- (Changes not pre-announced, so no timing responses)
- Using next-richest 4\% as a comparison group, Brewer, Saez and Shephard (2010) use a difference-in-difference methodology to estimate a taxable income elasticity of 0.46
- Implies a marginal income tax rate of $50 \%$ would take overall MTR beyond top of Laffer curve


## Policy background (2)

- Tax rises for high income individuals introduced in 2010-11
- Withdraw tax-free allowance above $£ 100 k$ (affects $\sim 1.5 \%$ of adults)
- $50 \%$ income tax rate above $£ 150 k$ (affects less than $1 \%$ of adults)
- Changes announced more than a year in advance, giving individuals opportunities to bring forward income to avoid higher rates
- 50\% rate reduced to $45 \%$ in 2013-14
- Reaction to big behavioural response in first year of the policy
- Announced at very end of 2011-12 tax year, though much speculation beforehand


## Income tax schedule, 2009-10 and 2010-11



## Responses to the new tax rates (1)

- Theory would lead us to expect that individuals bunch at convex kink points in the tax system
- In fact, we observe little bunching at the new kink points at $£ 100$ k and $£ 150$...


## Bunching at new tax thresholds



## Less bunching than at (long-standing) threshold for 40\% income tax rate



Source: Authors' calculations using 2003-04 to 2007-08 Survey of Personal Incomes

## Most bunching among directors of closely-held incorporated businesses

Timing response rather than real income response?


## Responses to the new tax rates (2)

- Aggregate figures reveal significant income shifting to 2009-10 from future years

Total incomes of affected group and group with slightly lower income, 1999-2000 to 2010-11


Source: Survey of Personal Incomes for all years except 2008-09 (scaled SAS302 data), and 2011-2 (scaled SA302 data with PAYE addition)

## Responses to the new tax rates (2)

- Aggregate figures reveal significant income shifting to 2009-10 from future years
- Not just a timing response though
- HMRC (2012) use difference-in-difference approach to estimate response to introduction of higher rate using lower-income group as a comparison group
- Estimate how much of income brought forward was from 2010-11 by examining trends among those with 'stable' incomes from different sources


## HMRC methodology



Source: HMRC (2012), 'The Exchequer effect of the 50 per cent $\square$ additional rate of income tax'.

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- Estimate how much of income brought forward was from 2010-11 by examining trends among those with 'stable' incomes from different sources
- HMRC estimate that $50 \%$ rate would raise $£ 1.1$ billion a year more than $40 \%$ rate in long run; cut to $45 \%$ would cost $£ 0.1$ billion
- But much uncertainty, particularly around how much of increase in 2009-10 brought forward from 2010-11 rather than future years


## What has changed since initial analysis?

- Since HMRC did analysis, now have fuller data for 2010-11 and data for 2011-12
- Full data for 2010-11 show incomes fell more in that year than the early data suggested, but especially for the control group
- Would suggest less behavioural response than initially estimated
- Data for 2011-12 does not show a big bounce back in top incomes; strongly suggests response was not all forestalling
- Indeed, bounce back somewhat less than HMRC's estimates would suggest, which suggests more of what response there was may have been "long term"
- At this stage HMRC estimates remain best estimates
- But these factors going in different directions mean clear need for further research (which we are undertaking in coming months)

Total incomes of affected group and group with slightly lower income, 1999-2000 to 2011-12


Source: Survey of Personal Incomes for all years except 2008-09 (scaled SA302 data), and 2011-2 (scaled SA302 data with PAYE addition)

## How did taxpayers respond to the higher tax rate?

- Clear evidence of timing response for dividends
- Easiest type of income to shift between periods
- Some bounce back in 2011-12, but remains well below pre-reform level
- Delaying income in 2011-12 because anticipate cut in tax rate?
- Employment income much less responsive to higher tax rate


## Trends in different income sources for group affected by 50\% rate, 2001-02 to 2011-12



Source: SA302 (income tax return) data. Note that more individuals had to file tax returns in 2010-11, slightly understating income falls in that year.

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- Employment income much less responsive to higher tax rate
- Deductions disclosed on the tax return did not seem responsive to new tax rate
- We observe charitable donations, losses and some pension contributions (mainly for the self-employed)
- Perhaps because of reduced annual limit on pension contributions?
- Contrary to usual result from the literature that most reduction in taxable income the result of higher deductions
- But are other deductions we don't observe, in particular most pension contributions for employees


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Source: SA302 (income tax return) data. Note that more individuals had to file tax returns in 2010-11, slightly understating income falls in that year.

## Conclusion

- UK introduced a $50 \%$ income tax rate on incomes above $£ 150,000$ in 2010
- Affects less than 1\% of adults
- Short-lived experiment: rate reduced to 45\% three years later
- Individuals did not bunch at the new kink points introduced in 2010-11
- Might increase as awareness of optimal response to kink points increases
- Clear evidence of timing effects, particularly for dividend income
- Though employment income much less affected
- Not the whole story though: incomes didn't bounce back in 2011-12
- Key challenge is to disentangle timing response from permanent response
- Looking at this as part of ongoing work in this area


## Optional Extra Slide

## HMRC trends in income for 100-150k, and 150k plus groups



Source: HMRC analysis of the $50 \%$ tax rate

