The impact on tax revenues of cutting the higher rate of income tax

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The IFS has been asked by Civitas to estimate the impact on tax revenue of cutting the higher rate of income tax from its current 40% level. The answer depends on: i) the extent to which changes in the marginal income tax rate affect the amount of income that higher-rate taxpayers declare to the taxman, and ii) the extent to which this represents a genuine change in income that thereby affects how much they spend. In this report, we use a range of elasticities (measures of responsiveness) to show how revenues could change under various plausible scenarios. These are only meant to be illustrative. There remains a great deal of uncertainty about the exact level of behavioural response and which tax revenues will be affected.

Size of the behavioural response of higher-rate taxpayers

A summary measure of the responsiveness of individuals to changes in their marginal tax rate is the "taxable income elasticity". This tells us how much taxable income increases when the marginal tax rate is reduced. A submission to the Mirrlees Review of the Tax System by researchers at the IFS, together with Professor Emmanuel Saez at the University of California, Berkeley, estimated this parameter to be 0.46 for the richest 1% of adults in the UK during the 1980s.[1] This means that when the net-of-tax rate (that is to say one minus the tax rate) rises by 1% of its original value, taxable income rises by 0.46%. For example, suppose the tax rate was originally 50% and fell to 49.5%. The net-of-tax rate would have risen from 50% to 50.5%, a rise of 1%, and the 0.46 elasticity implies that taxable income would rise by 0.46%. This estimate has a large degree of uncertainty attached to it however – there is a one-in-three chance that the true value lies outside the range 0.33 to 0.59 (i.e. one standard deviation either side). And, this is only the relevant elasticity for the richest 1% of adults (roughly corresponding to those with incomes greater than £100,000), whereas 2.9 million adults or around 6% are expected to be higher-rate taxpayers in 2009–10.[2] We would expect the taxable income elasticity to increase as incomes rise, [3] so we use a different, lower, taxable

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[1] M. Brewer, E. Saez and A. Shephard (2008), 'Means-testing and tax rates on earnings', submission to the Mirrlees Review of the Tax System, http://www.ifs.org.uk/mirrleesreview/press_docs/rates.pdf

[2] See http://www.hmrc.gov.uk/stats/income_tax/table2-1.pdf

income elasticity for those higher-rate taxpayers who are not among the richest 1% of adults.

We present six scenarios using different combinations of taxable income elasticities. We choose three different values for the taxable income elasticity for those with incomes above £100,000 using the BSS elasticity with one standard deviation either side (i.e. 0.33, 0.46 and 0.59) and then allow the taxable income elasticity for other higher-rate taxpayers to vary between 0 and 0.5.[4] The scenarios we examine (from the least responsive to the most responsive) are therefore as follows:

Table 1: Taxable income elasticities

	Taxable income elasticity for higher-rate taxpayers with incomes:	
	Below £100,000	*Above £100,000*
Scenario 1	0	0.33
Scenario 2	0.1	0.33
Scenario 3	0.2	0.46
Scenario 4	0.3	0.46
Scenario 5	0.4	0.59
Scenario 6	0.5	0.59

In previous work, we have examined how much revenue could be raised by increasing income tax rates above £150,000 under similar assumptions about the taxable income elasticity of the richest 1% of adults.[5] The analysis presented here produces different results, mainly because the marginal income tax rate is being changed at a much lower level of income. This means that reducing tax rates is much more costly and increasing them raises more revenue. It follows that the "Laffer bound" (the income tax rate at which tax revenues are maximised) is higher.

Throughout this analysis, we use data from the 2006 Survey of Personal Incomes, with incomes changed so that we match the expected number of

[3] See E. Saez, J. Slemrod and S.H. Giertz, 'The elasticity of taxable income with respect to marginal tax rates: a critical review', 2009, http://elsa.berkeley.edu/~saez/saez-slemrod-giertzJEL09elasticity.pdf

[4] Note that the lower elasticity for those with incomes above £100,000 is approximately equal to the Treasury's estimate of the taxable income elasticity for this group. See M. Brewer and J. Browne (2009), 'Can more revenue be raised by increasing income tax rates for the very rich?', IFS Briefing Note 84, http://www.ifs.org.uk/bns/bn84.pdf.

[5] M. Brewer and J. Browne (2009), 'Can more revenue be raised by increasing income tax rates for the very rich?', IFS Briefing Note 84, http://www.ifs.org.uk/bns/bn84.pdf.

higher-rate taxpayers in the 2009–10 tax year.[6] The SPI is an annual sample of taxpayers constructed by HMRC with anonymised information about individuals who pay tax through PAYE, those who pay tax through self-assessment and a few non-taxpayers who come into contact with HMRC. Individuals with high incomes are oversampled, so this is a much better source of information on those with very high incomes than household surveys such as the Family Resources Survey that IFS researchers generally use to analyse tax and benefit reforms.

Laffer curves

The figures below show how income tax and National Insurance revenues change as the higher rate of income tax is changed under each of these assumptions. Since the tax base for National Insurance is so similar to the earned income tax base, it is highly likely that if income tax receipts increase, National Insurance receipts will increase as well. We assume that earned and unearned income change by the same proportion throughout this report.

Figure 1: Change in income tax and National Insurance revenues when taxable income elasticity above £100,000 is 0.33
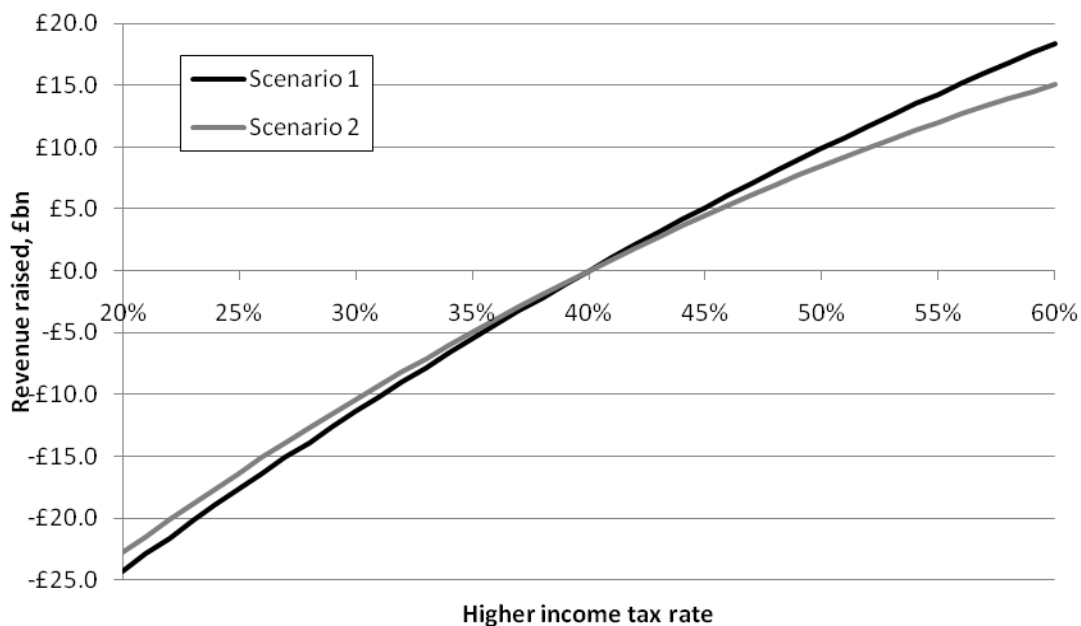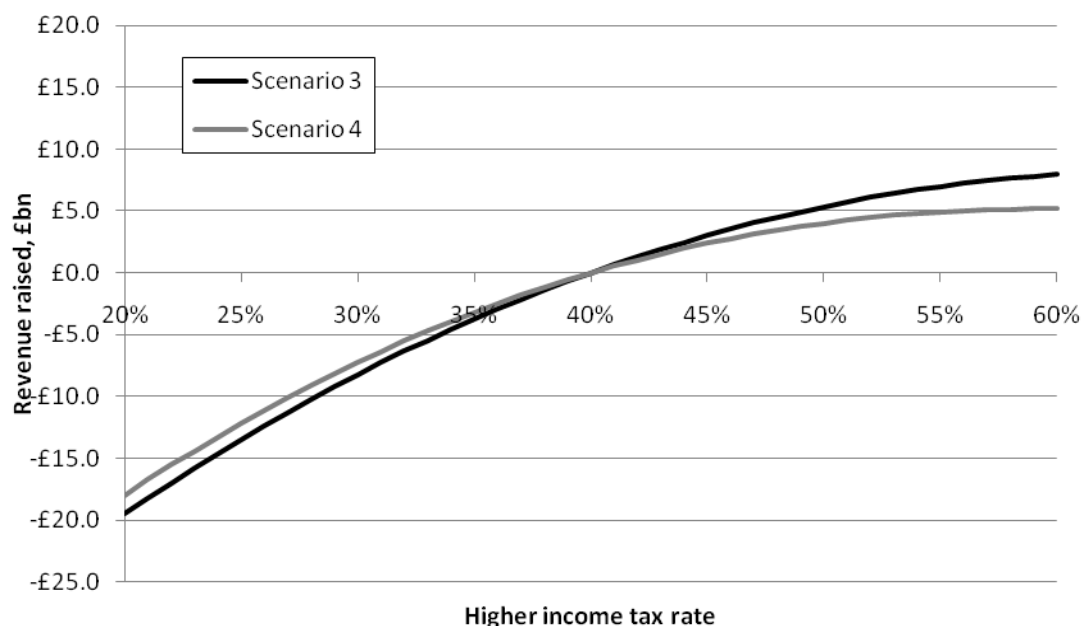

Note: Assumes employees' National Insurance rate of 1%, employers' National Insurance rate of 12.8%.
Source: Authors' calculations using the 2006–07 Survey of Personal Incomes.

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[6] This means that we have to reduce incomes in nominal terms by around 1.5%. This is because the number of higher rate taxpayers is expected to have fallen between 2006–07 and 2009–10 as a result of the current recession. We might therefore expect the costs of cutting the higher rate of income tax to be larger in less difficult economic times.
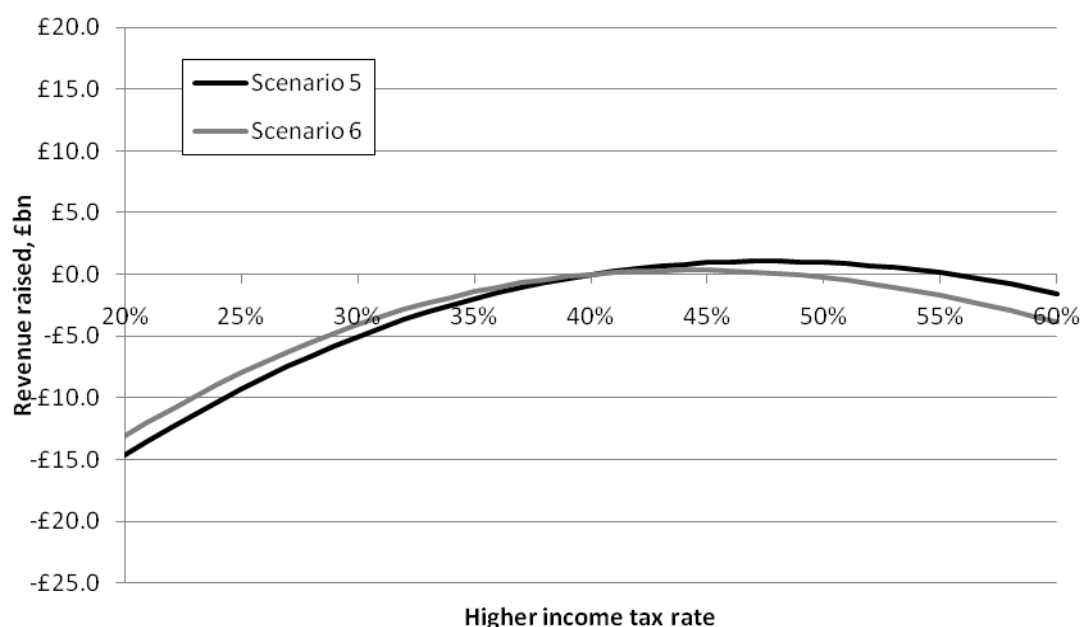
Figure 2: Change in income tax and National Insurance revenues when taxable income elasticity above £100,000 is 0.46

Figure 3: Change in income tax, National Insurance and consumption tax revenues when taxable income elasticity above £100,000 is 0.59

It is clear that the cost of cutting the higher rate of income tax is highly sensitive to the responsiveness of higher-rate taxpayers to changes in their marginal tax rate. Estimates of the cost of reducing the higher income tax rate to 30% (which would create a flat combined income tax and employee National Insurance tax rate of 31%) range from £4 billion to £11 billion per year depending on which set of elasticities are used. Similarly, the annual cost of moving to a flat income tax rate of 20% ranges from £13 billion to £24 billion.

In each case, the vast majority of the revenue given away goes to those with incomes above £100,000. This is because they pay these lower rates of higher-rate tax over a wider range of their income than those whose income is only just over the higher-rate threshold. Also, because we assume in these calculations that the behavioural response depends only on the marginal tax rate an individual faces, those with incomes just over the higher-rate threshold respond to the same extent as those with much higher incomes. This means that the exchequer's gain in revenue from them as a result of their behavioural response is the same (as a percentage of their income) as for those with higher incomes. But because those with income just over the higher-rate threshold pay higher-rate tax over a much smaller range of their income, the exchequer loss from them as a result of reducing the higher rate of income tax is much lower.

**Nature of the behavioural response of higher-rate taxpayers**

So far, we have assumed that spending, and hence indirect tax revenues, are unaffected by any behavioural response. At a first pass, this seems unlikely – we would expect higher-rate taxpayers to spend less if they have less income to spend. This would happen if the behavioural response represented a genuine change in the incomes of higher-rate taxpayers, or a change in their number, through changes in net emigration or chosen retirement ages, for example.

However, if the response of higher-rate taxpayers to a lower tax rate was to make less use of tax planning and tax avoidance schemes, then it is possible that taxable income reported to the authorities would increase in the way suggested by the taxable income elasticity, but with no effect on individuals' overall income. This seems particularly likely in the case where a flat 20% income tax rate was introduced, as it would totally remove the benefit of forms of tax planning that seek to reduce the overall tax liability by shifting income to later periods when an individual is facing a lower marginal income tax rate. A key example of this is personal pension contributions, which are tax deductible, although pension income in retirement is taxed. This form of saving is currently highly attractive to higher-rate taxpayers who expect to only be liable to income tax at the basic rate in retirement. A single income tax rate would therefore reduce

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the attractiveness of personal pensions as a savings vehicle to higher-rate taxpayers. If this was the behavioural response of higher-rate taxpayers to a lower income tax rate, we would not expect expenditure, and hence consumption tax revenues, to be affected, and hence overall tax revenues would not increase as much.

Therefore, while only considering the impact of any behavioural response on income tax and National Insurance revenues is not quite as unreasonable as it might first appear, in figures 4 to 6 we go on to illustrate what would happen to overall government revenues if expenditure fell by as much as taxable income in response to a change in marginal tax rates. Figures 1–3 and 4–6 can be seen as the two sets of extremes in terms of the effect of behavioural response on consumption tax revenues.
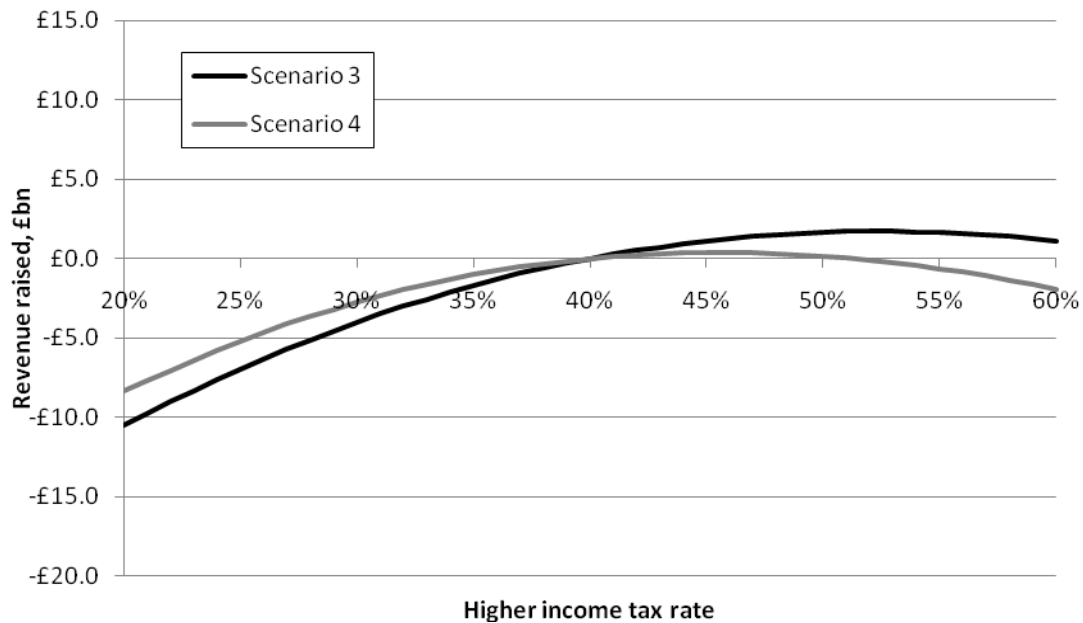
Figure 4: Change in income tax, National Insurance and consumption tax revenues when taxable income elasticity above £100,000 is 0.33
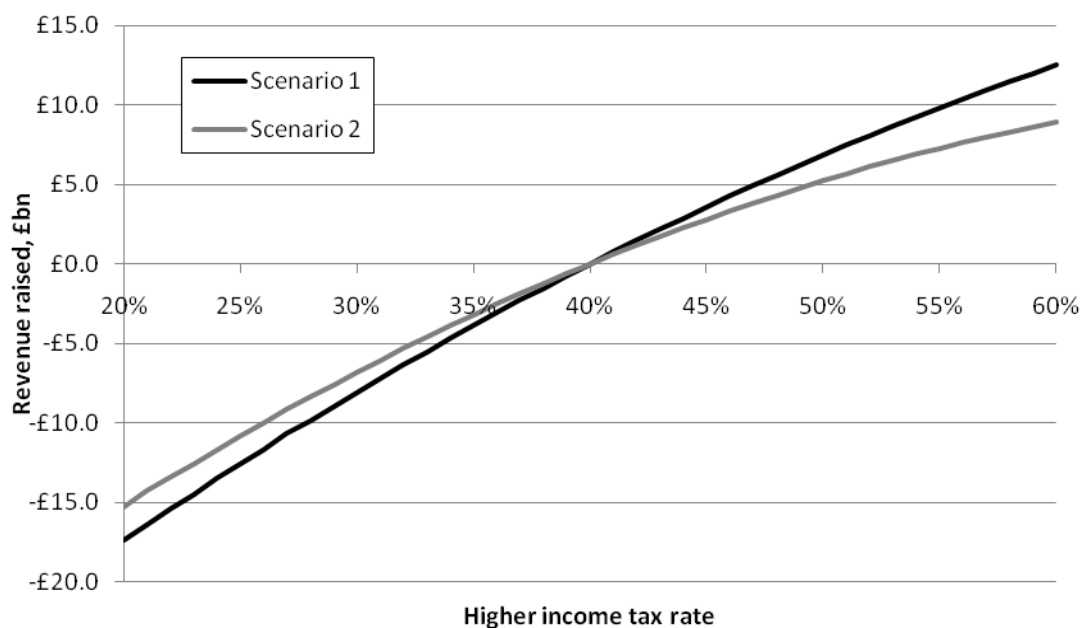
Note: Assumes employees' National Insurance rate of 1%, employers' National Insurance rate of 12.8% and consumption tax rate of 17%.
Source: Authors' calculations using the 2006–07 Survey of Personal Incomes.

Figure 5: Change in income tax, National Insurance and consumption tax revenues when taxable income elasticity above £100,000 is 0.46

Note: Assumes employees' National Insurance rate of 1%, employers' National Insurance rate of 12.8% and consumption tax rate of 17%.
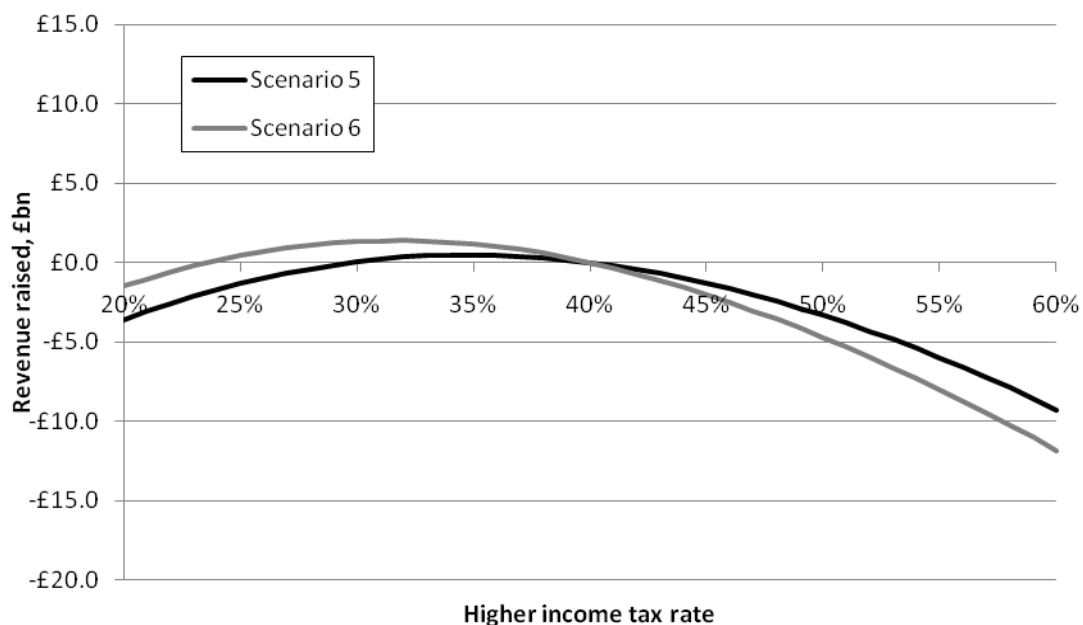Source: Authors' calculations using the 2006–07 Survey of Personal Incomes.

Figure 6: Change in income tax, National Insurance and consumption tax revenues when taxable income elasticity above £100,000 is 0.59

Note: Assumes employees' National Insurance rate of 1%, employers' National Insurance rate of 12.8% and consumption tax rate of 17%.
Source: Authors' calculations using the 2006–07 Survey of Personal Incomes.

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We can see that the cost of cutting the higher rate of income tax is highly sensitive to the extent to which behavioural responses by higher-rate taxpayers are genuine increases in income that lead to higher expenditure, rather than increases in income declared to the tax man that do not reflect an underlying increase in spending power. In the event that the behavioural response to tax cuts increases expenditure by as much as taxable income, it is possible that the current 40% higher income tax rate is above its revenue-maximising level if the taxable income elasticities are high enough. Estimates of the annual change in income tax, National Insurance and indirect revenues in the case where income and expenditure change by the same amount in response to reducing the higher income tax rate to 30% range from £8 billion lower to £1 billion higher depending on the assumed taxable income elasticity. The annual cost of moving to a flat rate of income tax of 20% ranges from £1.5 billion to £17.4 billion depending on the taxable income elasticity.

Summary

The cost of cutting the higher rate of income tax is highly dependent on the size and nature of the behavioural response to tax changes among higher-rate taxpayers. Depending on how responsive higher-rate taxpayers are, the annual cost of reducing the higher rate to 30% could be up to £11 billion and reducing it to 20% could be up to £24 billion. For cuts in the higher income tax rate to be expected to increase revenues rather than reduce them would require a very high degree of responsiveness, with almost all that response taking a form that would increase spending by as much as reported taxable income.