## 2. Fiscal tightening: why and how?

Robert Chote, Rowena Crawford, Carl Emmerson and Gemma Tetlow (IFS)

## Summary

- The December 2009 Pre-Budget Report estimates that the recession and financial crisis have punched a permanent hole worth $5.2 \%$ of national income (or $£ 73$ billion in 2009-10 terms) in the public finances. This is large, but smaller than the 6.4\% of national income (or $£ 90$ billion) that the Treasury thought in the April 2009 Budget. In the absence of policy action, public sector debt would be set to rise unsustainably.
- Estimates produced by Barclays suggest that the Treasury may be optimistic about the extent to which the economy will recover from the crisis. The central Barclays scenario would imply a further $£ 25$ billion damage done to the public finances, while a 'pessimistic' scenario would imply a further $£ 50$ billion.
- Over the next eight years, the government intends to implement a fiscal tightening worth $5.5 \%$ of national income ( $£ 77$ billion). If delivered, this would more than offset the permanent increase in borrowing that the Treasury believes has been caused by the crisis and would bring debt back onto a sustainable path.
- The government intends to implement just over $60 \%$ of the tightening between 2010-11 and 2014-15, achieving two-thirds through spending cuts and one-third through tax increases. (The biggest losers from the tax rises will be individuals with incomes over $£ 100,000$ a year, many of whom will face marginal income tax rates of $50 \%$ or $60 \%$. The number of people facing these rates is set to rise significantly.)
- The remaining $40 \%$ of the tightening is to come from further increases in tax or deeper cuts to current spending after 2014-15. Continuing two-thirds spending cuts and one-third tax rises would take spending to $39.9 \%$ of national income, slightly higher than in 2003-04, and tax revenues to 38.8\%, the level in 2007-08.
- If the interest rate on government debt rises to be in line with growth in the economy (an increase of almost 1 percentage point), then keeping borrowing constant beyond 2017-18 would be sufficient to see debt returning back below 40\% of national income in 2032-33. But new measures would need to be implemented to mitigate the costs of an ageing population, and any further significant rises in interest rates would push this date back significantly.
- The Conservatives want to ensure that non-investment spending is no higher than tax revenues at the end of the forecast horizon (adjusting for the strength of the economy). This would likely require borrowing to be $1.1 \%$ of national income (or $£ 15$ billion in 2009-10 terms) lower in 2015-16 than Labour's plans. While this might help reduce the risk of rising interest rates, doing the same total tightening more quickly would do little to alter the forecast path of debt. If the quicker tightening were implemented two-thirds through spending cuts and one-third through tax rises, it would require a further $£ 11$ billion cut to public spending and a $£ 5$ billion rise in taxes in 2015-16. Under Labour's plans, the pain from these changes would be deferred until 2017-18.


### 2.1 Introduction

In the April 2009 Budget and the December 2009 Pre-Budget Report (PBR), Chancellor Alistair Darling accepted that the financial crisis would lead not only to a temporary recession in the UK, but also to a permanent loss of wealth and productive potential in the economy. The PBR forecasts imply that the government would as a result be left having to borrow an additional $5.2 \%$ of national income (or $£ 73$ billion in 2009-10 terms) a year indefinitely in the absence of policy measures.

The policy measures set out in PBR 2008, Budget 2009 and PBR 2009 actually further increased public sector borrowing in 2008-09 and 2009-10 in a deliberate attempt to boost spending in the economy and help limit the depth of the recession at a time when monetary policy was constrained. But from 2010-11 onwards, the measures will steadily reduce borrowing by cutting public spending and increasing taxes. The planned fiscal tightening would more than offset the additional 'structural' borrowing by 2017-18.

This chapter examines the impact of the financial crisis and the recession on the public finances, as well as the measures that the government has introduced and possible alternatives to them. Section 2.2 discusses what effect the financial crisis and recession have had on government borrowing and debt by excluding from the Treasury's forecasts the direct impact on government revenues and spending of policy measures taken over the last 18 months. Then Section 2.3 discusses what effect the policy responses that have been announced have had on the outlook for borrowing and debt. Section 2.4 considers the relative merits of alternative timescales for the fiscal tightening and sets out the possible impact on revenues, spending, borrowing and debt of one scenario for a quicker fiscal consolidation that would comply with the Conservative Party's proposed fiscal targets. Section 2.5 concludes.

### 2.2 Effect of the financial crisis and recession on the public finances

## The cost of the crunch: Pre-Budget Report 2009

Judging from the differences between the forecasts made by the Treasury in Budget 2008 (before the worst of the impact of the financial crisis hit the public finances) and the December 2009 PBR (the latest official forecasts), we can think of the effect of the financial crisis and recession on the public finances as having three components.

First, the Treasury estimates that the UK economy's productive potential will, by the third quarter of 2010, have fallen $5 \%$ below the levels it forecast prior to the crisis and that this loss of potential will be permanent thereafter. Of this reduction, 4.5 percentage points come from a fall in output per worker and the remaining 0.5 percentage point comes from a fall in the size of the labour force arising from lower net inwards migration. This will permanently cost the Exchequer around $3.5 \%$ of national income (or $£ 49$ billion in 2009-10 terms) a year in lost revenues and higher spending. The Treasury does not, however, think that the financial crisis and recession have had any effect on the growth rate of potential output beyond the third quarter of 2010. It still forecasts that the UK economy can sustain growth averaging $23 / 4 \%$ a year after economy-wide inflation, although it continues to use the lower estimate of $2 \frac{1}{2} \%$ a year for the purposes of its public finance forecasts.

Second, there is a further permanent loss to the Exchequer of about $1.7 \%$ of national income (or $£ 24$ billion in 2009-10 terms). This predominantly reflects changes in price levels, which feed through into lower future revenues and higher future spending in relation to nominal national income. The December 2009 PBR forecasts assume that stock prices, house prices and economy-wide prices (as implied by the GDP deflator) will remain permanently lower than had been forecast in Budget 2008.

Lower-than-anticipated asset prices feed through into weaker public finances as revenue from stamp duties, capital gains tax and inheritance tax are affected. However, changes in the price level can also affect the outlook for spending. One particular reason why these lower-than-anticipated price levels feed through into a permanent weakening of the public finances (in the absence of policy action) relates to the way in which the Treasury forecasts public spending. The Treasury's 'no policy change' forecasting assumption for spending beyond the end of the current Spending Review period is to assume some particular real-terms growth rate (that is, over-and-above growth in the GDP deflator). Because of lower-than-expected inflation through to 2010-11, the Treasury's cash departmental spending plans for 2010-11 (set in the October 2007 Comprehensive Spending Review (CSR)) have turned out to be more generous in real terms than initially anticipated (see Table 8.1 in Chapter 8 for more details). In the absence of any 'discretionary policy action', this higher level of real-terms spending in 2010-11 (the base year) would have fed through into higher real-terms spending for evermore. Thus lower-than-anticipated inflation feeds through into a permanent increase in public spending.

The combined effect of these first two factors is that the government's structural (i.e. 'recovery-resistant') borrowing would be expected to be $5.2 \%$ of national income (or $£ 73$ billion in 2009-10 terms) higher for evermore as a result of the financial crisis, in the absence of offsetting policy action.

Third, the Treasury estimates that activity in the UK economy is currently operating 6.5\% below what is now thought to be its sustainable level - in other words, that productive assets (labour and capital) are underutilised at the moment. This temporarily depresses tax revenues and increases demands on spending. In 2009-10, the Treasury estimates that this 'cyclical' component of borrowing will amount to $3.6 \%$ of national income (or $£ 51$ billion). Some additional cyclical borrowing is expected to persist until the economy returns to its sustainable level, sometime after 2014-15 in the Treasury's view.

These effects on borrowing (in the absence of the discretionary policy action announced since Budget 2008) are shown in Figure 2.1. The darkest green blocks show the level of borrowing forecast for each year in Budget 2008. The mid-green blocks show the additional borrowing that the Treasury estimates has resulted from the financial crisis and which cannot be explained by the usual impact of temporary weakness in the economy. Finally, the pale green blocks show the estimated additional temporary borrowing incurred while the economy is expected to be operating below its sustainable level.

What is clear from Figure 2.1 is that, had the government announced no new tax increases or spending cuts since Budget 2008, public sector borrowing would have been forecast to remain permanently at $6.4 \%$ of national income (or about $£ 90$ billion a year in 2009-10 terms) even after the economy had recovered from recession. This compares with the government's plans before the financial crisis, which implied that borrowing would stabilise at about $1.2 \%$ of national income (or $£ 17$ billion in 2009-10 terms).

Figure 2.1. Disease - Pre-Budget Report 2009 borrowing forecasts ignoring post-crisis discretionary policy changes


Notes: For the purpose of this figure, we have assumed that the economy returns to its trend level of activity (i.e. the output gap equals zero) in 2016-17. The Treasury does not publish its estimate of the output gap beyond 2014-15 (see chart A3 of HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hmtreasury.gov.uk/prebud_pbr09_repindex.htm).
Sources: Authors' calculations using HM Treasury, Budget 2008, Pre-Budget Report 2008, Budget 2009 and Pre-Budget Report 2009, all available at http://www.hm-treasury.gov.uk/.

Figure 2.2. Debt forecasts - without policy action since Budget 2008


Notes: Forecasts for debt levels assume that non-debt interest spending and revenues remain constant as a share of national income from 2017-18 onwards, while inflation is assumed to run at $23 / 4 \%$ a year and real growth in national income at $2 \frac{1}{2} \%$ a year. Average nominal interest rates are assumed to rise from 4.4\% (the level forecast in the December 2009 PBR for the end of the Treasury's forecast horizon, 2014-15) to equal nominal GDP growth between 2017-18 and 2027-28. From 2027-28 onwards, nominal interest rates are assumed to equal nominal GDP growth. This implies that total net debt interest payments decline/rise as a share of national income as net debt falls/rises, which in turn implies a strengthening/weakening of the current budget over time. The 'no policy action' scenario assumes that no discretionary policy announcements were made in any Budget or PBR after Budget 2008.
Sources: Historical data are from HM Treasury, Public Sector Finances Databank, 4 January 2010, http://www.hm-treasury.gov.uk/d/public finances databank.xls. Forecasts are authors' calculations using figures from HM Treasury, Budget 2008, Pre-Budget Report 2008, Budget 2009 and Pre-Budget Report 2009, all available at http://www.hm-treasury.gov.uk/.

A permanent increase in the structural deficit of this size would have moved the public finances onto an unsustainable path, with debt and debt interest payments rising remorselessly as shares of national income over the next 50 years. The implications for debt are shown in Figure 2.2, which presents forecasts for the debt level based on the borrowing plans from Budget 2008 and the borrowing plans implied by the December 2009 PBR in the absence of any policy changes over the last 18 months. Debt would have been left heading towards $200 \%$ of national income by the middle of the century.

## The permanent fiscal cost of the crisis: changes to the Treasury assessment

Assessing how much of the current huge budget deficit is structural and permanent, as distinct from cyclical and temporary, is not straightforward and the Treasury's views have changed significantly over the past year.

The November 2008 PBR - published relatively soon after the collapse of Lehman Brothers and the intensification of problems in the financial sector - initially estimated that the permanent effect of the crisis on government borrowing would be to increase the structural deficit by $3.2 \%$ of national income (or about $£ 45$ billion in 2009-10 terms). But by the time of the Budget in April 2009, the Treasury had revised up this estimate to 6.4\% of national income (or $£ 90$ billion) instead. This reflected an increase in the Treasury's assessment of the permanent loss of productive capacity in the UK economy (from 4\% to 5\%), further falls in the price of assets between November 2008 and April 2009 (which reduced future expected revenues) and a projected lower level of economy-wide inflation in 2009-10 and 2010-11 (which boosted real-terms plans for central government spending on public services in 2010-11 that had been set in cash terms). As described above, since 2010-11 serves as the baseline for future Treasury plans for real-terms spending, by default this increase in 2010-11 real-terms spending causes a permanent weakening of future public finances.

As we have seen, the estimate in the December 2009 PBR is somewhat smaller, at $5.2 \%$ of national income (or $£ 73$ billion). The reason for this more optimistic outlook is that the Treasury now expects a greater part of the borrowing in 2009-10 to be temporary than it had thought in Budget 2009. Since Budget 2009, economic growth has turned out to be even lower than the Treasury had forecast; for the purposes of its public finance forecasts, the Treasury is now assuming that the economy will contract by $43 / 4 \%$ in 200910 , rather than the $23 / 4 \%$ it assumed in Budget 2009. (This is highlighted by the change in the Treasury's estimates of the output gap between Budget 2009 and PBR 2009 that is shown in Figure 2.3.) However, even though the economy has performed more poorly than it had expected, the Treasury is not anticipating substantially higher levels of borrowing. So, while the Treasury revised up its estimate of the overall deficit from $12.4 \%$ of national income in Budget 2009 to $12.6 \%$ in PBR 2009, it was able to cut its estimate of the structural deficit from $9.8 \%$ to $9.0 \%$ of national income.

In addition to the Treasury's assessment that weaker economic performance in 2009-10 represented a greater cyclical - rather than permanent - downturn in the economy, the estimated structural budget deficit was also helped by two other factors. First, growth in the stock market between April 2009 (when the Budget was published) and December 2009 (when the PBR was published) far exceeded the assumption in Budget 2009, which was for it to grow in line with money GDP. These higher asset prices boosted forecasts for tax revenues from stamp duty on share transactions, capital gains tax and inheritance tax

Figure 2.3. Out-turns and forecasts for the level of economic output relative to potential assumed in Budget 2008: a permanent loss of potential output and worsening short-term outlook


Note: The output gap is the difference between actual national income and potential national income measured as a percentage of the latter, with a negative output gap indicating that the economy is operating below trend.
Sources: Authors' calculations and HM Treasury, Budget 2008, Budget 2009 and Pre-Budget Report 2009, all available at http://www.hm-treasury.gov.uk/.
between the April 2009 Budget and the December 2009 PBR. Second, economy-wide inflation in 2009-10 and 2010-11 is now not expected to be as low as was forecast at the time of the April 2009 Budget. This reduces the extent to which the cash spending plans for 2010-11 are, in real terms, more generous than when they were set in the 2007 CSR.

## The permanent fiscal cost of the crisis: alternative scenarios

The extent to which borrowing can be expected to fall from its current high level will depend in part on two factors: first, the extent to which the financial crisis and associated recession have led to a permanent reduction in the level of productive capacity of the UK economy; and second, the extent to which growth in productive capacity has been affected. We now turn to consider each briefly in turn.

## Different permanent loss of output

As described above, the Treasury estimated in the April 2009 Budget that the productive capacity of the UK economy had been reduced by $5 \%$ as a result of the financial crisis. It did not revise this figure in the December 2009 PBR, despite the weaker-than-previouslyexpected performance of the UK economy in 2009. The analysis by Michael Dicks of Barclays Wealth presented in Chapter 1 suggests that, while it is plausible that a reduction in productive capacity of around $5 \%$ will have occurred, a more central estimate might be $7.5 \%$ and a 'pessimistic' scenario in which productive capacity has been reduced by as much as $10 \%$ is perhaps as plausible on the downside as the Treasury's judgement is on the upside.

An illustrative example of how such declines in productive capacity might have affected the Treasury's forecast path of total borrowing in the absence of policy measures since Budget 2008 is shown in Figure 2.4. The PBR bars are the same as in Figure 2.1 - i.e. what
the Treasury is now forecasting for total borrowing in each year, excluding the estimated direct impact on borrowing of all of the measures announced since Budget 2008. This shows borrowing falling from $12.0 \%$ of national income in $2010-11$ to $6.4 \%$ of national income in 2017-18, at which point it would stop falling. The $7.5 \%$ decline in potential national income bars instead illustrate a scenario where the fall in productive capacity was in line with the central estimate presented in Chapter 1 (i.e. a $7.5 \%$ rather than $5 \%$ fall in productive capacity). We take the Treasury's estimate that a $1 \%$ loss in productive potential would increase borrowing by, on average, an estimated $0.7 \%$ of national income. ${ }^{1}$

The exact path of borrowing under this scenario would depend on when lower trend capacity translated into lower economic growth - for the purposes of this illustration, we simply assume that the Treasury's near-term economic forecasts prove accurate until the amount of (now lower) spare capacity is fully exhausted. Under this scenario, borrowing would fall to $8.2 \%$ of national income in 2014-15 and then stabilise at this level. In other words, under this scenario it appears that the financial crisis and recession have permanently increased structural borrowing by $7.0 \%$ of national income (or about $£ 99$ billion in 2009-10 terms), rather than the $5.2 \%$ (or $£ 73$ billion) under the Treasury’s assumptions. If this alternative estimate proved to be correct, there would need to be a combination of further tax rises and deeper spending cuts amounting to $13 / 4 \%$ of national income in order to bring borrowing down to the levels envisaged in the PBR. This is equivalent to $£ 25$ billion a year in today's terms.

Figure 2.4. Bigger decline in potential output would lead to high borrowing being more persistent


Notes: Strictly speaking, a $7.5 \%$ decline in potential GDP would not lead to output being $2.5 \%$ lower than a $5 \%$ fall in trend GDP - rather, it would be $2.6 \%$ lower ( $=2.5 / 0.95$ ). The equivalent applies to the $10 \%$ fall in trend GDP.
Sources: Authors' calculations using HM Treasury, Budget 2008, Pre-Budget Report 2008, Budget 2009 and Pre-Budget Report 2009, all available at http://www.hm-treasury.gov.uk/.

[^0]Under the 'pessimistic' scenario, in which productive capacity has been reduced by $10 \%$ (again we assume that the Treasury's near-term forecasts for growth still prove accurate), borrowing would only fall to 9.9\% of national income in 2014-15 and would persist at this level thereafter. In other words, under this scenario the financial crisis and recession are estimated to have increased structural borrowing by $8.7 \%$ of national income (or $£ 123$ billion in 2009-10 terms), rather than the $5.2 \%$ (or $£ 73$ billion) estimated under the Treasury's 2009 PBR assumptions. If this 'pessimistic' scenario turns out to be true, a combination of further tax rises and deeper spending cuts amounting to $£ 50$ billion a year in today's terms would be required - if borrowing were to be reduced as Mr Darling envisages.

## Impact of financial crisis and recession on trend growth

It is also possible that the financial crisis has affected not just the level of productive capacity in the economy but also its trend growth rate. As mentioned above, the Treasury believes that this is not the case - in its public finance forecasts, the Treasury has retained its previous assumption that the UK economy can sustain growth averaging $21 / 2 \%$ a year after economy-wide inflation. A lower (higher) estimate of trend growth would increase (reduce) the structural budget deficit by an increasing amount each year going forwards. Again, in Chapter 1, the analysis by Michael Dicks suggests a less rosy outlook than the Treasury's, with a central estimate that trend growth will be reduced to just $13 / 4 \%$ a year going forwards. This is $3 / 4$ percentage point lower than the figure used by the Treasury for its public finance forecasts and the difference in productive capacity between the two scenarios would thus increase by $3 / 4 \%$ of national income every year (i.e. $3 / 4 \%$ of national income after the first year, $11 / 2 \%$ of national income after the second year, $21 / 4 \%$ after the third year and so on). ${ }^{2}$ Such a gap therefore implies that the amount available to be spent publicly and privately would be reduced by a growing amount over time. One way in which to avoid this translating into a growing structural budget deficit would be to keep public spending constant as a share of national income. This would imply that, after economy-wide inflation, public spending could grow at just $13 / 4 \%$ rather than the $2 \frac{1}{2} \%$ a year that the growth assumption the Treasury currently uses for forecasting the public finances would allow.

### 2.3 The fiscal policy response

## Plans from Pre-Budget Report 2009

In response to the problems outlined in Section 2.2, the government has announced a series of discretionary policy changes over the last 18 months. These have aimed to: (i) provide a short-term fiscal stimulus, to help mitigate the depth and length of the recession; and (ii) thereafter permanently lower spending and increase taxes to reduce borrowing in the medium term. The combined effect of the structural deterioration in the public finances and the policy changes announced since March 2008 is that the Treasury now expects borrowing to stabilise at $1.0 \%$ of national income from 2017-18 onwards, a slightly smaller deficit than implied for the same year by the forecasts in Budget 2008.

[^1]Figure 2.5. Cure - reduction in borrowing from discretionary policy changes announced since Budget 2008


Financial year
Notes: Bars represent the planned fiscal tightening (reduction in government borrowing), decomposed into tax increases and spending cuts. $£$ billion figures show the net exchequer gain each year from the planned fiscal consolidation, in 2009-10 terms.
Sources: Authors' calculations using HM Treasury, Pre-Budget Report 2008, Budget 2009 and Pre-Budget Report 2009, all available at http://www.hm-treasury.gov.uk/.

As Figure 2.5 shows, the net effect of policy announcements since Budget 2008 has been to increase government borrowing in 2008-09 and 2009-10. This has been as a result of some tax giveaways (such as the 13-month reduction in the main rate of VAT from $171 / 2 \%$ to $15 \%$, the impact of which is discussed in Chapter 3) and some spending giveaways (such as the higher benefit payments to pensioners and families with children in early 2009 and the higher winter fuel payments to those aged 60 and over in winter 2009-10).

In 2010-11, the net effect of new policy announcements has been marginally to reduce borrowing, predominantly as a result of having brought forward some investment spending from 2010-11 into 2008-09 and 2009-10. Thereafter, new policy announcements are expected to reduce borrowing by an increasing amount each year until 2017-18. By 2017-18, borrowing is expected to be $5.5 \%$ of national income lower as a result of discretionary policy changes than it would have been if the government had taken no action over the last 18 months. These policy changes are slightly larger than the additional structural borrowing created by the crisis, hence the slightly more ambitious target for borrowing in 2017-18 than was implied by the forecasts in Budget 2008.

The figures for borrowing forecast in Budget 2008, and the latest 2009 PBR forecasts both including and excluding the estimated direct impact of policy measures implemented since Budget 2008 (and presented in Figure 2.5), are shown in Figure 2.6. Borrowing is now forecast by the Treasury to peak at $12.6 \%$ of national income in 200910 , with most of the rise being explained by the direct impact of the financial crisis and associated recession, but some reflecting the cost of the fiscal stimulus package that has been implemented in response to the crisis. Going forward, the tax increases and, in particular, the cuts to previously planned spending levels are projected to reduce and, eventually, slightly more than cancel out the increase in borrowing arising directly from the crisis, although this is not projected to occur until eight years' time, in 2017-18.

Figure 2.6. Borrowing forecasts - with and without policy action since Budget 2008


Notes: As for Figure 2.1.
Sources: As for Figure 2.1.

The implications for public sector net debt are shown in Figure 2.7. This shows the same debt profiles as in Figure 2.2, plus a forecast for the path of debt once we include the policy action that the government has set out through to 2017-18, and assuming that thereafter the primary balance (that is, total government revenues less non-debt-interest spending) remains constant. Under these assumptions, Figure 2.7 shows that the government's policy action over the last 18 months has been sufficient to return debt to a downward path beyond 2014-15, though debt is not forecast to return below $40 \%$ of

Figure 2.7. Debt forecasts - with and without policy action since Budget 2008


Notes: As for Figure 2.2. The forecast including the impact of demographic pressures assumes that the primary balance changes from year to year, beyond 2017-18, in the way estimated by HM Treasury in the 2008 LongTerm Public Finance Report.
Sources: As for Figure 2.2. Impact of long-term demographic pressures on the primary balance taken from chart 4.5 of HM Treasury, Long-Term Public Finance Report, March 2008, http://www.hm-
treasury.gov.uk/bud bud08 longterm.htm.
national income until 2032-33. In its latest Long-Term Public Finance Report, published alongside the December 2009 PBR, the Treasury published the findings of its equivalent analysis, under a range of different assumptions about the difference between interest rates and growth in national income (the greater the latter relative to the former, the easier it is for debt to fall quickly). These scenarios ranged from debt returning to below $40 \%$ of national income in the early 2030s to it not returning to this level until the early 2040s. ${ }^{3}$

Maintaining the same primary balance in the longer term as the government hopes to achieve in 2017-18 - as we have assumed in the 'PBR 2009 ' line in Figure 2.7 - would require a further fiscal tightening in the future to offset the impact of demographic changes on the public finances. These pressures were outlined in the Treasury's 2008 Long-Term Public Finance Report (but, unhelpfully, easily comparable figures were not reproduced in the Treasury's 2009 report). So Figure 2.7 also shows a forecast for debt levels under the assumption that the primary balance deteriorates after 2017-18 in the way outlined in the 2008 Long-Term Public Finance Report. If no further policies were implemented to deal with this potential upward pressure on borrowing, debt could remain at around $50 \%$ of national income through to the middle of the century, rather than continuing to fall further.

The government has announced how it intends to bring about just over 60\% of the total fiscal tightening; as Figure 2.5 showed, $60 \%$ of the tightening will be in place by 2014-15 and is made up of already announced tax rises and cuts to previous plans for current and investment spending. As Figure 2.8 shows, details of the remainder - due to come into force between 2015-16 and 2017-18 - are sketchier. All we know about this additional tightening is that it comprises some combination of tax increases and cuts to current spending; in other words, it is not proposed to be achieved through further cuts to investment spending.

Figure 2.8. Composition of the cure by 2017-18, from Pre-Budget Report 2009


[^2][^3]Of the proposed tightening up to 2014-15, 33\% is planned to come from tax increases, $39 \%$ from cuts to current spending plans and the remaining $28 \%$ from cuts to investment spending (so overall it is one-third tax increases and two-thirds spending cuts). Note, however, that this is not set in stone as the spending projections have yet to be confirmed as definitive plans (let alone delivered). The impact on individual incomes of the taxraising measures that have been announced so far are discussed in Box 2.1, while the implications for public service spending of the December 2009 PBR plans for total spending up to 2014-15 are discussed in Chapter 8. The increase in public sector net debt and the planned cuts to investment spending mean that the net worth of the public sector - i.e. the value of all its assets (physical and financial) less the value of all its debts - is forecast to fall sharply. This is discussed in more detail in Box 2.2.

## Box 2.1. Fiscal impact of personal tax and benefit reforms since 2007-08

## James Browne and David Phillips (IFS)

A number of reforms to personal taxes and benefits have been announced or implemented since the start of the recession in 2008 to help repair the public finances. In terms of revenue raised, the most significant changes taking effect since 2007-08 are:

- from April 2010, a 50 p rate of income tax on income above $£ 150,000$ (affecting the highest-income $1 \%$ of individuals) and withdrawal of the personal allowance (PA) from incomes above $£ 100,000$, which will introduce an effective marginal income tax rate of $60 \%$ on income between $£ 100,000$ and the level at which the PA is exhausted, which will be $£ 113,000$ in 2010-11 (affecting the highest-income $2 \%$ of individuals);
- from April 2011, restriction of tax relief on their pension contributions for anyone who saves in a pension whose gross income is above $£ 130,000$ and whose income plus any employer pension contributions is assessed to be over $£ 150,000$;
- from April 2011, a 1p rise in employee and employer rates of National Insurance (NI), with an increase in the point at which NI is paid benefiting lower earners; this will leave those on above-average earnings paying more NI and - if employers decide to cut wages in response to the increase in employer NI - receiving lower wages;
- above-inflation increases in fuel duties each April to 2013 affecting motorists.

The Treasury forecasted in Budget 2009 and PBR 2009 that the combined effect of the income tax increases (including the pension changes) will be to raise $£ 7.4$ billion, the NI increases are estimated to raise $£ 6.9$ billion and the increases in fuel duties $£ 2.8$ billion a year. Other changes - forecast to have smaller overall effects - include increases in alcohol duties, real cuts in the income tax higher-rate threshold (HRT) and increases to child benefit.

The estimated distributional impact of all the reforms implemented since 2007-08 is shown in Figure 2.9. Households containing individuals with annual incomes below $£ 100,000$ are ranked from the lowest to the highest income and split into 10 equallysized groups; the omitted households are shown separately in the extreme right-hand bar. On average, each income decile group loses, with losses as a share of income increasing with income. For the richest decile, the average loss equates to almost $2 \%$ of net income, but this is dwarfed by the $13 \%$ average loss among those households containing individuals whose income is at least $£ 100,000$, which (unlike other households) are directly affected by the main income tax increases.

Figure 2.9. Distributional impact of reforms 2007-08 to 2012-13


Notes: Income is net of taxes and benefits but is measured before housing costs, and is adjusted for household size using the McClements equivalence scale. Changes to the direct tax and benefit system (including employer National Insurance), along with the announced increases in fuel and alcohol duties, are included in the analysis, and no behavioural response is assumed. The Family Resources Survey (FRS) under-records both the numbers and incomes of those earning at least $£ 100,000$. For this reason, an adjustment is made to gross and net income at the top of the income distribution using the Survey of Personal Incomes (SPI). The graph shows the average change in net income due to announced tax and benefit changes separately for households containing an individual earning at least $£ 100,000$ and for other households. Income deciles are defined over those households without an individual earning at least $£ 100,000$.
Source: Authors' calculations using the FRS, the SPI and the IFS tax and benefit microsimulation model, TAXBEN.

Initially, the main income tax changes will only affect the $2 \%$ of individuals with the highest incomes. However, as the new tax thresholds at $£ 100,000$ and $£ 150,000$ are (under current policy) set to be held fixed in cash terms, while nominal incomes are likely to grow, over time a greater proportion of the population will face higher marginal income tax rates. The Treasury has also announced that the value of the higher-rate threshold - the point at which the $40 \%$ rate of income tax becomes payable - will increase by less than the rate of inflation in 2011-12 and 2012-13.

Table 2.1 shows the number of people we estimate will face each of the higher marginal tax rates in the years 2011-12 to 2015-16, assuming that the taxable incomes of higher-income individuals grow in line with nominal national income as forecast in PBR 2009 to 2014-15 and 5\% nominal income growth in 2015-16. This suggests the number of individuals facing the new $50 \%$ rate of income tax will rise by $50 \%$ from 360,000 in 2011-12 to 540,000 in 2015-16. The number forecast to face the new effective $60 \%$ marginal rate of income tax increases by $73 \%$ from 150,000 in 2011-12 to 260,000 in 2015-16. The number of individuals facing a $40 \%$ marginal rate of income tax (in other words, the number of individuals with income between the HRT and $£ 100 \mathrm{k}$ or between $£ 113 \mathrm{k}$ and $£ 150 \mathrm{k}$ ) is forecast to increase from $3,490,000$ individuals in 2011-12 to $4,600,000$ in 2015-16, which is an increase of nearly one-third or, alternatively, over 1 million individuals.

Table 2.1. Projected number of individuals facing higher marginal income tax rates

| Income: | $\mathbf{H R T} \mathbf{f 1 0 0 k}$ | $\mathbf{£ 1 0 0 k} \mathbf{- P A}$ exhausted PA exhausted- $\mathbf{£ 1 5 0 k}$ | $\mathbf{£ 1 5 0 k +}$ |  |
| :--- | :---: | :---: | :---: | :---: |
| Marginal tax rate: | $\mathbf{4 0 \%}$ | $60 \%$ | $40 \%$ | $50 \%$ |
| $2011-12$ | $3,250,000$ | 150,000 | 240,000 | 360,000 |
| $2012-13$ | $3,770,000$ | 170,000 | 250,000 | 410,000 |
| $2013-14$ | $3,970,000$ | 200,000 | 280,000 | 450,000 |
| $2014-15$ | $4,160,000$ | 230,000 | 310,000 | 500,000 |
| $2015-16$ | $4,260,000$ | 260,000 | 340,000 | 540,000 |

Notes: Calculations assume incomes grow in line with nominal national income as forecast in the December 2009 PBR to 2014-15 and 5\% nominal income growth in 2015-16.
Source: Authors' calculations using the private communication from Treasury for 2011-12.

## Box 2.2. Public sector net worth

Public sector net debt is defined as the total amount of outstanding public sector debt net of any short-term financial assets that the public sector holds. This means that it does not take into account the value of any long-term financial assets held by the public sector, nor the value of the physical assets that the public sector holds. These are, however, captured in the Treasury's measure of 'public sector net worth'. This is the estimated total value of all public sector assets (both financial and physical) less the estimated value of all of its debts. Increases to the forecast level of debt, combined with cuts to the planned level of investment spending, will lead to lower projected levels of public sector net worth. As shown in Figure 2.10, between 1997 and 2001 the government sharply increased public sector net worth as it reduced debt and increased investment spending. However, even prior to the worst of the financial crisis, in Budget 2008, the Treasury's plans implied a decline in public sector net worth. The latest forecasts, from the December 2009 PBR, suggest that it will actually turn negative in 2012-13 and then continue to decline through to the end of the forecast horizon in 2014-15. This is despite the fact that the government has been critical of the low level of public sector net worth that it inherited, noting in November 1999 of its Budget 1999 projections that 'The prudence of the Government's medium-term plans was also reflected in public sector net worth which was forecast to rise slightly following years of marked decline'. a

Figure 2.10. Diminishing estimates of public sector net worth


[^4]a. Page 3 of HM Treasury, Analysing UK Fiscal Policy, November 1999, http://www.hmtreasury.gov.uk/analysing uk fiscal policy.htm.

Under the government's current plans, a greater proportion of the fiscal tightening up to 2014-15 is to be delivered by cuts to spending rather than increases in taxes. Figure 2.11, which presents forecasts for spending and revenues as a share of national income both with and without policy action, suggests why the government may have chosen such a mix. In the absence of policy action, spending would have been expected to rise to $48.0 \%$ of national income in 2010-11 and fall back only slightly - to 44.4\% of national income by 2014-15, which would have been 3.3 percentage points above the $41.1 \%$ of national income that was spent in 2007-08 before the financial crisis. Conversely, in the absence of policy action, revenues would have been forecast to fall to $36.0 \%$ of national income in 2010-11 before returning to $36.6 \%$ by 2014-15, which is just 2.1 percentage points below their level in 2007-08. In other words, given the way spending plans are set, revenues as a share of national income would have been expected to return closer to their pre-crisis levels than spending in the absence of policy measures. As a result, the government needed to announce more action to reduce spending than it did to increase taxes if the objective was to return the state back to its pre-crisis size. Of course, the desired level of future taxation and spending is a political decision and they need not return to pre-crisis levels; the government could have chosen a different mix of tax and spending policy action if it had wanted. When the Chancellor was questioned by the Treasury Select Committee as to why he had chosen spending to take two-thirds of the strain and taxes one-third, he answered: 'I thought it was the right balance. We do need to get spending down but, remember, I happen to think that a lot of public spending is quite important for supporting the economy'. ${ }^{4}$

Figure 2.11. Why is more of the policy action happening on spending?


Sources: Out-turn figures from HM Treasury, Public Sector Finances Databank, 4 January 2010,
http://www.hm-treasury.gov.uk/d/public finances_databank.xls. Forecasts are authors' calculations using HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hm-
treasury.gov.uk/prebud_pbr09_repindex.htm.

[^5]
## Changes to the composition of the fiscal tightening since PreBudget Report 2008

Over the last 18 months, the government has changed both the size and the composition of its planned fiscal tightening. Figure 2.12 shows the planned composition of the completed fiscal tightening in 2017-18 as set out in PBR 2008, Budget 2009 and PBR 2009. It shows:

- the size of the planned tightening increasing between PBR 2008 and Budget 2009, before being reduced somewhat in PBR 2009;
- the composition of the planned tightening (or at least the earlier part, for which we have more detail) shifting away from spending cuts and towards tax increases, although the former remain more important by a ratio of two-to-one;
- the greater reliance on tax increases being used to loosen the proposed squeeze on current spending, rather than to loosen the squeeze on capital spending, even though the latter is being hit disproportionately hard.

Figure 2.12. Composition of planned policy tightening in 2017-18


Notes: Bars represent the planned fiscal tightening (reduction in government borrowing), decomposed into tax increases and spending cuts. $£$ billion figures show the net exchequer gain in each case from the planned fiscal consolidation, in 2009-10 terms.
Sources: Authors' calculations using HM Treasury, Pre-Budget Report 2008, Budget 2009 and Pre-Budget Report 2009, all available at http://www.hm-treasury.gov.uk/.

## Delivering the additional fiscal tightening from 2015-16 onwards

As Figure 2.5 showed, the December 2009 PBR pencilled in plans for a further fiscal tightening amounting to $2.1 \%$ of national income (or about $£ 30$ billion in 2009-10 terms) to be implemented from 2015-16 to 2017-18. Chapter 7 discusses in detail some specific tax increases and cuts to spending on benefits and tax credits that could help a future government to achieve a cut in borrowing of this size. Here we consider three broad options for the composition of the additional tightening:

Figure 2.13. Spending and revenues under alternative scenarios for the division of the unannounced pain


Sources: Out-turn figures from HM Treasury, Public Sector Finances Databank, 4 January 2010,
http://www.hm-treasury.gov.uk/d/public finances_databank.xls. Forecasts are authors' calculations using HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hm-
treasury.gov.uk/prebud_pbr09_repindex.htm.

- delivering the whole additional tightening through cuts to spending, while leaving tax policy unchanged; the implications of this for spending and revenues as a share of national income are shown by the light grey and light green lines in Figure 2.13;
- delivering the entire additional fiscal tightening through increases in taxation; this scenario is illustrated by the black and dark green lines in Figure 2.13;
- maintaining the same split between taxation and spending for the unannounced tightening as for the announced tightening (i.e. one-third tax increases and twothirds spending cuts). The mid-grey and mid-green lines in Figure 2.13 show what would happen to spending and taxation as shares of national income under this scenario.

Delivering the whole additional tightening through spending cuts would see spending fall to $39.2 \%$ of national income (slightly below the level seen in 2003-04), while tax revenues would stabilise at $38.1 \%$ of national income (around the level seen in 2005-06 and slightly below the level in 2007-08, immediately before the financial crisis). Delivering the whole additional tightening through tax rises would require a tax increase amounting to $2.1 \%$ of national income, or about $£ 30$ billion in 2009-10 terms, by 201718. This would be equivalent to, for example, about a $61 / 2$ percentage point increase in the main rate of VAT (of course, in practice, it is not likely that a single rate such as this would be used in isolation to raise such a large amount of revenue). This would result in spending levels of $41.3 \%$ of national income, with the tax burden at $40.2 \%$. This would be about the level of spending we had in 2007-08, but a tax burden higher than anything we
have seen since 1988-89. This would, however, leave us with levels of tax and spending very similar to the medium-term position envisaged by Budget 2008.

The third scenario (i.e. delivering two-thirds of the additional tightening through spending cuts) would imply a $£ 10$ billion tax increase (equivalent to about a 2 percentage point permanent increase in the main rate of VAT) and a deeper $£ 20$ billion spending cut, in 2009-10 terms, to be fully in place by 2017-18. This would take spending to $39.9 \%$ of national income and tax revenues to $38.8 \%$ - the level of tax burden we had in 2007-08 (immediately pre-crisis) and a slightly higher level of spending than we had in 2003-04.

### 2.4 Alternative timescales for the fiscal tightening

Section 2.3 set out the government's current plan for reducing structural borrowing to $1.0 \%$ of national income by 2017-18, through a combination of spending cuts and tax increases. However, there have been various arguments put forward for accelerating or delaying the fiscal tightening. We consider these arguments in this section.

## The argument against accelerating fiscal tightening: safeguarding recovery

The main argument against accelerating the tightening is that to do more on top of the withdrawal of the stimulus already planned risks imperilling the recovery. This might then increase the amount that the government has to borrow in the short term and - if it leads to any permanent loss of productive potential - in the long term too.

Some economists point to the experience of 1937, when a premature policy tightening is blamed for derailing the US economy's recovery from the Great Depression. Professor Christina Romer, head of President Barack Obama's Council of Economic Advisers, estimates that the ending of a bonus for First World War veterans in 1936 and the introduction of social security taxes in 1937 cut the budget deficit by $2.5 \%$ of national income but helped push the US back into recession. ${ }^{5}$ Could the same happen here?

A recent survey of 12 previous large fiscal tightenings, six from the UK and six from other countries, by Policy Exchange suggests that they did not damage future economic growth. ${ }^{6}$ However, it is worth bearing in mind that the cases were in countries and time periods when interest rates were initially high and thus there was scope to loosen monetary policy - through lower interest rates - whilst tightening fiscal policy.

The impact of discretionary policy measures announced in PBR 2008, Budget 2009 and PBR 2009 averages an additional 0.9\% of national income a year over the next eight years. But, contrary to ministerial claims that the government is maintaining its fiscal support for the economy next year, this discretionary action is front-loaded, with a tightening of $1.6 \%$ of national income next year, largely because of the withdrawal of the temporary stimulus in place in 2009-10 (Figure 2.14). However, the net stimulus provided to the economy by changes in government borrowing varies from year to year not only as a result of discretionary announcements but also as a result of the 'automatic

[^6]stabilisers' built into the tax and spending system. That is, when the economy is performing badly, government borrowing (even on unchanged policies) will tend to increase as individuals pay less tax but demands on government spending (through, for example, more people claiming unemployment benefits) increase. Thus an alternative metric by which to judge the withdrawal of spending power in 2010-11 is to look at the total change in borrowing (rather than just that brought about through policy change, such as the ending of the fiscal stimulus package). This shows a less dramatic fiscal contraction between this year and next (Figure 2.14). The Treasury expects the reduction in total borrowing to be just $0.6 \%$ of national income, rising to a much bigger $2.9 \%$ of national income between 2010-11 and 2011-12. This reflects the fact that both the underlying structural deficit and the cyclical deficit are forecast to continue rising next year even as the economy begins to recover. This should help cushion the impact on economic activity in 2010-11 of the withdrawal of the fiscal stimulus package.

Figure 2.14. Additional fiscal tightening and change in total borrowing


Financial year
Sources: Forecasts for public sector net borrowing in 2010-11 to 2014-15 are from HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hm-treasury.gov.uk/prebud_pbr09_repindex.htm. Figures for PSNB from 2015-16 onwards are authors' calculations based on the fiscal stance outlined in PBR 2009 for the years to 2017-18. 'Additional fiscal tightening from measures post Budget 2008' is the change from year to year in the size of the 'cure' implemented since Budget 2008 shown in Figure 2.5.

Out of the 19 countries in the G20 (the other member being the European Union), the UK and Argentina are the only two not planning to implement a discretionary fiscal stimulus in calendar year 2010, as shown in Table 2.2. However, even without any discretionary fiscal stimulus, the UK's level of borrowing in 2010 and the increase in its borrowing between 2007 (i.e. pre-crisis) and 2010 are both forecast to be the highest as a share of national income in the G20.

Looking further forward, between 2010 and 2014 the UK is forecast to have the largest reduction in borrowing in the G20. But despite this, over the whole period from 2007 to 2014 the increase in borrowing in the UK is forecast to be exceeded only by those in Russia and Japan, and in 2014 only Japan is forecast to have a higher level of borrowing.

Table 2.2. Borrowing and debt as a share of national income in the UK compared with the other 18 countries in the G20

| Fiscal measure | UK rank | Notes |
| :---: | :---: | :---: |
| Discretionary fiscal stimulus |  |  |
| 2009 | Equal $10^{\text {th }}$ <br> largest | (UK's 1.6\% of GDP slightly less than the $2.0 \%$ of GDP G20 average) |
| 2010 | Equal smallest | (Argentina is only other G20 country not to have announced one; average G20 stimulus is $1.6 \%$ of GDP) |
| Borrowing |  |  |
| 2007 level (pre-crisis) | $5{ }^{\text {th }}$ highest |  |
| 2010 level | $1^{\text {st }}$ highest |  |
| 2014 level | $2^{\text {nd }}$ highest | (only Japan higher) |
| Increase, 2007 to 2010 | $1^{\text {st }}$ largest |  |
| Reduction, 2010 to 2014 | $1^{\text {st }}$ largest |  |
| Increase, 2007 to 2014 | $3^{\text {rd }}$ largest | (only Japan and Russia larger) |
| Debt |  |  |
| 2007 level (pre-crisis) | $10^{\text {th }}$ highest |  |
| 2010 level | $7{ }^{\text {th }}$ highest |  |
| 2014 level | $4^{\text {th }}$ highest | (only Japan, Italy and US higher) |
| Increase, 2007 to 2010 | $2^{\text {nd }}$ largest | (only Japan larger) |
| Increase, 2010 to 2014 | $2^{\text {nd }}$ largest | (only Japan larger) |
| Increase, 2007 to 2014 | $2^{\text {nd }}$ largest | (only Japan larger) |

Note: The G20 comprises 19 individual countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom and United States) and the European Union.
Source: Annex tables 1 and 2 on pages 35 and 36 of International Monetary Fund, The State of Public Finances Cross-Country Fiscal Monitor: November 2009, 3 November 2009, International Monetary Fund, Washington, DC, http://www.imf.org/external/pubs/ft/spn/2009/spn0925.pdf.

This relatively high level of borrowing leads to the forecast level of public sector debt in the UK increasing faster over the period from 2007 to 2014 than in any other G20 countries with the exception, again, of Japan. As a result, while the UK had the tenth highest debt out of the 19 countries in the G20 in 2007, by 2014 it is forecast to have the fourth highest (behind Japan, Italy and the United States).

Fiscal policy is, of course, not the only tool available to stimulate economic activity. Monetary policy can also perform this role, and prior to the crisis both the Labour government and the Conservative Party agreed that monetary policy rather than discretionary fiscal policy should be the main instrument used. ${ }^{7}$ At the moment, monetary conditions look very loose: the Bank of England base rate is at a historic low of $0.5 \%$, by the end of February $2010 £ 200$ billion of 'quantitative easing' will be in place and the

[^7]exchange rate fell by almost 30\% over the 12 months to March 2009 (see Figure 5.1 in Chapter 5). So it is questionable how much scope there is for monetary policy to stimulate the economy further, and therefore whether monetary policy could offset the impact of tighter fiscal policy on overall spending in the economy. However, market expectations are that interest rates will rise in future, ${ }^{8}$ suggesting there could be scope for such a rise to be delayed to accommodate a more rapid fiscal tightening than currently envisaged by the Treasury. However, in a recent speech to the Work Foundation, the Secretary of State for Business, Innovation and Skills, Lord Mandelson, argued that, while credible plans to reduce the deficit faster would deliver interest rates that were lower than they otherwise would have been, 'low interest rates in themselves are no guarantee of economic growth, as the Japanese experience shows'. ${ }^{9}$

Analysts at Goldman Sachs have, however, argued that any direct depressing impact of fiscal tightening could be offset if it prompts further depreciation of the pound. ${ }^{10}$ To the extent that it does, further discretionary action from the Bank of England might not be necessary.

## The argument for accelerating fiscal tightening: the threat of higher government borrowing costs

The main argument in favour of a faster fiscal tightening is the risk that investors will demand higher interest rates to lend to the government, out of fear that it will resort to inflation or (in extremis) default to reduce the debt burden.

The current increases in public sector borrowing and debt come at a time when it is relatively cheap for the UK government to borrow. Figure 2.15 shows that the average nominal interest rate on the outstanding stock of public sector net debt has fallen from over $10 \%$ in the early 1980s to a little over $4 \%$ today. The figure also shows that since the turn of the century, the average real interest rate (calculated using estimated economywide inflation) has been running consistently at levels not seen since the late 1980s.

The Treasury assumed in the December 2009 PBR that the average nominal interest rate on the government's debt would remain near current levels (of about $4 \frac{1}{2} \%$ ) over the next five years, even though the stock of debt is forecast roughly to double over that period. This means that interest on public sector net debt is also forecast almost to double - from around $1.9 \%$ of national income or $£ 27$ billion in today's terms to $3.3 \%$ or $£ 46$ billion in today's terms - but even this would only be slightly above the level Labour inherited in 1997 (Figure 2.16).

The relationship between the stock of government debt and the interest rates at which the government can borrow is not as straightforward as one might imagine. Despite the projected rise in debt, there are good reasons to expect that the government's borrowing costs will remain relatively low.

[^8]Figure 2.15. Average interest rate on outstanding government debt


Notes: The average effective nominal interest rate is calculated as cash net debt interest paid as a percentage of the cash value of the stock of net debt at the end of the previous financial year. The average effective real interest rate is calculated using the average effective nominal interest rate and GDP deflators.
Sources: Historical data from Office for National Statistics, Public Sector Finances: November 2009, http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=805. Forecasts from HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hm-treasury.gov.uk/prebud_pbr09 repindex.htm. GDP deflators from HM Treasury, http://www.hm-treasury.gov.uk/d/gdp_deflators.xls, 4 January 2010.

Figure 2.16. Public sector debt interest


[^9]Notes and Sources to Figure 2.16
Notes: Figures for forecast net debt interest are calculated using figures for primary balance and public sector net borrowing (as a share of GDP) from table B2 of the 2009 PBR. Figures for forecast gross debt interest are net debt interest plus forecast receipts of interest and dividend payments from the private sector from table 2.9 of HM Treasury, 2009 Pre-Budget Report: The Economy and Public Finances - Supplementary Material, December 2009, http://www.hm-treasury.gov.uk/d/pbr09_chartstables.pdf.
Sources: Historical data are series ANBQ and ANLO from table 2.3C of Office for National Statistics, Financial Statistics Freestanding Time Series Data, December 2009,
http://www.statistics.gov.uk/statbase/tsdtimezone.asp. Forecasts are from HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hm-treasury.gov.uk/prebud_pbr09_repindex.htm.

Recent analysis by the International Monetary Fund suggests that there is some evidence of a positive relationship between debt and deficit levels and borrowing costs. ${ }^{11}$ It concludes that it is the fiscal balance, rather than debt levels, that is most strongly related to increases in interest rates. In particular, the IMF estimates that a 1 percentage point increase in the fiscal deficit increases bond yields by about 0.2 percentage point, and that the effect can be worse than this in countries about which there is concern over the longterm sustainability of their public finances (such as those with rapid population ageing). However, the IMF also notes that interest rates tend to deteriorate more, for a given increase in the fiscal deficit, in countries with high initial debt levels. Although the UK in 2007 was relatively 'mid table' in terms of its level of debt compared with the other 18 countries in the G20, we are expected to experience the second largest increase in debt over the period from 2007 to 2014 (with only Japan forecast to have a larger increase in its debt; see Table 2.2). Consequently, our borrowing costs may become more sensitive to the size of the fiscal deficit as our debt level rises. It is also the case that alternative estimates produce somewhat larger effects: see, for example, Box 1.2 in Chapter 1.

Though the evidence is mixed, there is clearly a danger that investors will demand higher interest rates to lend to the government. This would increase the burden of its interest payments. If this higher debt burden were financed from additional borrowing, there would be further upward pressure on debt, which would further worsen investor sentiment and threaten a vicious spiral. Alternatively, the government would have to increase the size of the fiscal tightening to keep debt on the previously desired path implying the need for more tax increases or spending cuts.

Judging how far borrowing costs could rise and what the implications for future deficit and debt levels would be is very difficult. However, four illustrative scenarios for the paths of debt and of debt interest payments through to 2040 are shown in Figures 2.17 and 2.18 , respectively:
i. Assuming that average borrowing costs are as forecast by the Treasury in the medium term, then rising gradually over a 10-year period to be equal to nominal GDP growth from 2027-28 onwards. This is the scenario also shown in Figure 2.7 and is our baseline scenario.
ii. Assuming that borrowing costs fall to 1 percentage point below our baseline scenario between 2010-11 and 2020-21 and then remain at this lower level thereafter. This might be considered quite an optimistic scenario relative to our central scenario, given that borrowing costs for Germany are currently 0.63 percentage points below those for the UK.

[^10]iii. Assuming that borrowing costs rise 1 percentage point above our baseline scenario between 2010-11 and 2020-21 and then remain at this higher level thereafter. Interest rates charged to Ireland are currently almost 1 percentage point higher than the UK's interest rates.
iv. Assuming that borrowing costs rise 2 percentage points above our baseline scenario between 2010-11 and 2020-21 and then remain at this higher level thereafter. This might be considered quite a pessimistic scenario relative to our central scenario, given that borrowing costs for Greece are currently only about $13 / 4$ percentage points higher than the UK's interest rates.

Figure 2.17. Debt forecasts - under alternative scenarios for future borrowing costs


Notes: As for Figure 2.2. The 'baseline' scenario is the same as the 'PBR 2009' figures shown in Figure 2.7. The scenarios for higher or lower borrowing costs assume that average debt servicing costs increase or decrease by the amount shown from 2020-21 onwards, with the increase/decrease phasing in over the period 2010-11 to 2020-21.
Sources: As for Figure 2.2.
Figure 2.18. Forecasts for debt interest spending - under alternative scenarios for future borrowing costs


Lower borrowing costs would result in debt levels falling more quickly than under our baseline scenario, with debt falling back below $40 \%$ of national income in the late 2020s and debt servicing costs being about $0.8 \%$ of national income lower in 2020-21 than under the baseline case. Higher borrowing costs would see debt falling less quickly and a greater share of national income being devoted to debt service. However, even a 2 percentage point rise in interest rates above nominal GDP growth in the longer term would not - assuming the primary balance remains at the level suggested by PBR 2009 for 2017-18 thereafter - lead to an unsustainable path for debt. Of course, as mentioned above, maintaining the same level of primary balance in future years may become more difficult as demographic changes in the UK are expected to result in an increasing demand for public spending, particularly on items such as pensions and the NHS. ${ }^{12}$

Higher borrowing costs would, however, mean that a greater proportion of national income would have to be devoted to servicing the outstanding debt. As Figure 2.18 shows, debt servicing costs are forecast to peak at about $3.3 \%$ of national income under the PBR 2009 plans, if debt servicing costs rise slightly over the medium term to be equal to nominal GDP growth and then stabilise at that level. However, if average interest rates were to rise by 1 percentage point, spending on debt servicing would peak at $4.0 \%$ of national income in 2019-20, about 0.9\% of national income higher than under the baseline scenario in that year. This would be the highest level of spending on debt interest payments since 1985-86.

## An alternative tightening scenario: the Conservative target

The Conservatives have suggested that they would seek to achieve two targets for fiscal policy, which would require implementing a fiscal tightening more quickly than the government's current plans suggest. These targets are:

- for the cyclically adjusted current budget to be in balance (that is, after adjusting for temporary weakness in the economy, non-investment spending should be no greater than total revenues) at the end of the forecast horizon; and
- to have debt falling as a share of national income at the end of the forecast horizon.

The plans set out in PBR 2009 would comply with these targets if one adopted a forecasting horizon that ended no earlier than 2017-18. However, this would be two years longer than the forecasting horizon typically used by the Treasury. Therefore, complying with the Conservatives' fiscal targets would not necessarily require a larger fiscal tightening in the end, but may well require that this fiscal tightening is implemented more quickly. In the remainder of this section, we consider the potential impact on borrowing, debt, spending and revenues of meeting the Conservative Party's fiscal targets over a forecasting horizon of the length currently used by the Treasury.

We assume here that the Conservatives are working on the basis of a forecast horizon extending to 2015-16 - in other words, a six-year consolidation period. ${ }^{13}$ Our calculations suggest that achieving their first (current budget balance) target would mean that their second (debt) target was also automatically met unless they had radically different plans for public sector net investment from those outlined in PBR 2009.

[^11]The plans set out in PBR 2009 show the current budget returning to a small surplus in 2017-18. However, under current policy, there is still forecast to be a cyclically adjusted current budget deficit of $1.1 \%$ of national income in 2015-16. Thus to achieve balance in this year would require an additional fiscal tightening of this amount (equivalent to $£ 15$ billion in 2009-10 terms) to be implemented by 2015-16. So relative to the government's current plans, the Conservatives would have to have a combination of higher taxes or lower spending worth $£ 15$ billion in 2015-16, whereas under Labour the pain of these measures would be deferred for two more years.

The Conservative Party's plans only include a target for the cyclically adjusted current budget in the final year. To model meaningfully the effects of adhering to the target - on spending, revenues and borrowing - over the medium term requires us to make some assumptions about the path of progress towards the final target. We therefore assume:

- 2011-12 to 2012-13: Total borrowing is halved from its 2009-10 level (of $12.6 \%$ of national income) by 2012-13. This requires an additional fiscal tightening (relative to PBR 2009 plans) of $0.8 \%$ of national income in 2012-13. We assume that half of this is implemented in 2011-12 and the remainder in 2012-13.
- 2013-14 to 2015-16: To get the cyclically adjusted current budget to balance in 2015-16 requires a cut in structural borrowing between 2012-13 and 2015-16 of $2.4 \%$ of national income (or $0.3 \%$ of national income more than PBR 2009 plans suggest). We assume that this reduction in structural borrowing happens uniformly over the three years - with structural borrowing being $0.8 \%$ of national income lower in 2013-14 than it is in 2012-13, 1.6\% lower by 2014-15 and $2.4 \%$ lower by 2015-16. By 2015-16, borrowing under this scenario would $1.1 \%$ of national income (or $£ 15$ billion in 2009-10 terms) lower than under the PBR 2009 forecasts.

Figure 2.19. Structural borrowing - PBR forecast and an illustrative sixyear consolidation plan


Note: The Conservatives have not set out their intentions for borrowing beyond the end of their forecast horizon; we have not, therefore, shown forecasts for borrowing under the alternative scenario in 2016-17 and 2017-18.
Sources: Out-turn figures from HM Treasury, Public Sector Finances Databank, 4 January 2010,
http://www.hm-treasury.gov.uk/d/public_finances_databank.xls. Forecasts are authors' calculations using HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hm-
treasury.gov.uk/prebud_pbr09_repindex.htm.

Relative to the government's plans, we assume that the Conservatives would keep to the PBR 2009 investment plans and that all of the lower borrowing would be from a tightening on the current budget - that is, from new tax rises or cuts to non-investment spending. Figure 2.19 shows figures for structural borrowing based on PBR 2009 (dark green bars) and under the alternative, faster fiscal tightening set out above (light green bars). Under the alternative fiscal tightening, not only is the overall tightening done sooner but it is also the case that the additional tightening relative to Labour's plans is also relatively front-loaded.

The faster, six-year consolidation plan set out above is specifically designed to halve the headline deficit in three years rather than in four years. To do this would require borrowing to be reduced from $12.6 \%$ of national income in 2009-10 to $6.3 \%$ of national income in 2012-13. This is shown in Figure 2.20, which shows figures for total borrowing as a share of national income under both scenarios. In a reply to a question from the Conservative Shadow Chancellor, George Osborne, at Treasury questions in the House of Commons, Mr Darling said:

First, we have set out a plan to cut borrowing by half over a four-year period. I understand the hon. Gentleman's view, which is shared by some others as well, that we could go further and faster. However, I believe that attempting to do what we are doing in a period one year shorter than that would result in taking $£ 26$ billion more out of our economy. That would be damaging to our economy and very damaging to our future prospects, which is why I do not think that his policy on this matter is right. ${ }^{14}$

In fact, the direct cost of halving the deficit one year sooner - i.e. by 2012-13 rather than by 2013-14 - is not $£ 26$ billion. Under current plans, the Treasury is forecasting that it will more than halve the deficit by 2013-14, with borrowing falling to $5.5 \%$ of national income in that year (rather than the required 6.3\%). Mr Darling's $£ 26$ billion is the cost in 2012-13 terms of achieving this same 5.5\% borrowing one year earlier, which would require borrowing to be $1.6 \%$ of national income lower than that projected by the PBR. (This implies not only achieving the discretionary tightening planned by Labour in three years rather than four, but also achieving through discretionary tightening the cyclical improvement that would be expected without policy action between 2012-13 and 201314.) However, as mentioned above, exactly to halve the deficit in three years would require borrowing to be only $0.8 \%$ of national income lower in 2012-13 than is forecast by the Treasury. This is $£ 11$ billion in today's terms and $£ 13$ billion in 2012-13 terms.

Figure 2.21 shows the outlook for debt taking into account the direct impact of following the six-year fiscal consolidation plan outlined above. The trajectory for debt is little altered from what is implied by the PBR 2009 plans, which is not surprising given that the cumulative reduction in borrowing under this scenario is relatively small compared with the entire stock of outstanding debt. Of course, implementing such policy action could reduce the risk of interest rates charged on UK government debt rising significantly.

[^12]Assuming no difference in future interest rates results from the faster fiscal tightening, our calculations suggest that implementing this six-year plan would be sufficient to result in debt peaking one year earlier than the PBR plans suggest (in 2013-14 rather than 2014-15). This profile for debt would comply with the Conservative Party's proposed rule for debt - that is, that the level as a share of national income should be falling at the end of the forecast horizon - assuming the forecast horizon ends no earlier than 2014-15.

Figure 2.20. Total borrowing - PBR forecast and an illustrative six-year consolidation plan


Note: As for Figure 2.19.
Sources: As for Figure 2.19
Figure 2.21. Debt forecasts - PBR forecast and an illustrative six-year fiscal consolidation


Notes: As for Figure 2.2. The 'six-year fiscal consolidation' assumes that borrowing follows the path outlined in Figure 2.20; in 2017-18, we assume the primary balance reaches the level forecast in PBR 2009 and remains at this level thereafter. From 2017-18 onwards, although the primary balance is the same under both the scenarios illustrated, borrowing is slightly lower under the six-year consolidation, as cumulative borrowing up to this point is lower and hence the cost of servicing the outstanding stock of debt is also marginally reduced. Sources: As for Figure 2.2.

Figure 2.22. Spending and revenues - PBR forecast and an illustrative sixyear consolidation plan with two-thirds of additional squeeze coming on spending


Sources: Out-turn figures from HM Treasury, Public Sector Finances Databank, 4 January 2010,
http://www.hm-treasury.gov.uk/d/public finances databank.xls. Forecasts are authors' calculations using HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hm-
treasury.gov.uk/prebud_pbr09_repindex.htm.

If we assume that the additional fiscal tightening required to follow the six-year consolidation plan is delivered through the same distribution of tax increases and spending cuts as the government's currently announced plans (i.e. as Section 2.3 set out, one-third from tax increases and two-thirds from spending cuts), Figure 2.22 shows the implications for the levels of spending and revenues under our alternative scenario. Also shown are the paths for revenues and spending assuming the PBR 2009 consolidation path is followed, with two-thirds of the as-yet-unannounced fiscal tightening delivered through spending cuts and one-third through tax increases.

Delivering the additional tightening by 2015-16 through one-third tax increases and twothirds spending cuts would result in spending falling to $40.5 \%$ of national income (the level last seen in 2004-05) and the tax burden rising to $38.5 \%$ by 2015-16 (the level it was at in 2006-07), compared with $41.3 \%$ and $38.1 \%$ respectively under the scenario based on the PBR 2009 fiscal consolidation. So, by 2015-16, the total $1.1 \%$ of national income ( $£ 15$ billion in 2009-10 terms) reduction in borrowing, relative to Labour's plans, would be brought about through a $0.4 \%$ of national income additional increase in taxes ( $£ 5$ billion) and deeper cuts to public spending amounting to $0.8 \%$ of national income ( $£ 11$ billion). Under Labour's plans, the pain from these changes would be deferred until 2017-18.

The implications of the PBR planned tightening and our alternative scenario of a six-year consolidation plan for spending on public services between 2011-12 and 2014-15 are explored in more detail in Sections 8.4 and 8.5 in Chapter 8.

### 2.5 Conclusion

The December 2009 Pre-Budget Report estimates that the recession and associated financial crisis have punched a permanent hole worth $5.2 \%$ of national income (or $£ 73$ billion in 2009-10 terms) in the public finances. This is large, but is smaller than the $6.4 \%$ of national income (or $£ 90$ billion) that the Treasury thought at the time of the April 2009 Budget. In the absence of policy action, a sustained increase in annual borrowing of these levels would have left public sector debt on an unsustainable path.

Estimates produced by Barclays suggest that the Treasury may be optimistic about the extent to which national income will recover from the crisis. The central Barclays scenario would imply a further $£ 25$ billion damage done to the public finances, while a 'pessimistic' scenario would imply a further $£ 50$ billion, relative to the Treasury's assessment.

In response to the crisis, the government has implemented a short-term fiscal stimulus package to help limit the length and depth of the recession. In the medium term, it intends to implement a fiscal tightening that will reach $5.5 \%$ of national income ( $£ 77$ billion) by 2017-18. If delivered, this would more than cancel out the permanent increase in borrowing that the Treasury believes has been caused by the crisis and would be sufficient to bring debt back onto a sustainable path.

The government intends to implement just over 60\% of the tightening between 2010-11 and 2014-15, achieving roughly two-thirds through cuts to spending and one-third through the increases in tax that have already been announced. The biggest losers from the tax rises are those individuals with very high incomes, in excess of $£ 100,000$ a year. The remaining 40\% of fiscal tightening is to come from further increases in tax or deeper cuts to current spending after 2014-15. Continuing the policy of two-thirds spending cuts and one-third tax rises would, in 2017-18, take spending to $39.9 \%$ of national income, which would be slightly higher than the level in 2003-04, and tax revenues to $38.8 \%$, which was the level in 2007-08.

If the interest rate on government debt rises to be in line with growth in the economy, then keeping borrowing constant beyond 2017-18 would be sufficient to see debt return back below $40 \%$ of national income in 2032-33. But new measures would need to be implemented to mitigate the costs of an ageing population, and any further significant rises in interest rates would push this date back significantly and would also substantially increase the proportion of national income that would have to be devoted to servicing the outstanding debt stock.

The Conservatives' proposed fiscal rules - in particular, the target that, after adjusting for temporary weakness in the economy, non-investment spending will be no greater than total revenues by the last year of the forecast horizon - would require borrowing to be $1.1 \%$ of national income (or $£ 15$ billion in 2009-10 terms) lower in 2015-16 than under Labour's plans. While this might help reduce the risk of rising interest rates, the direct impact of doing the same tightening sooner (rather than doing a larger tightening overall) would do little to alter the path of debt going forwards. If the quicker tightening were implemented through two-thirds spending cuts and one-third tax rises, then it would require a further $£ 11$ billion cut to public spending and a $£ 5$ billion rise in taxes in 201516. Under Labour's plans, the pain from these changes would be deferred until 2017-18.


[^0]:    ${ }^{1}$ Source: HM Treasury, Public Finances and the Cycle, Treasury Economic Working Paper 5, November 2008, http://www.hm-treasury.gov.uk/prebud_pbr08_publicfinances.htm.

[^1]:    ${ }^{2}$ This example ignores the impact of compounding and therefore understates the impact of a reduction in growth.

[^2]:    Sources: Authors' calculations using HM Treasury, Pre-Budget Report 2008, Budget 2009 and Pre-Budget Report 2009, all available at http://www.hm-treasury.gov.uk/; based on 32.0 million families in the UK.

[^3]:    ${ }^{3}$ See chart 6.A of HM Treasury, Long-Term Public Finance Report, December 2009, http://www.hmtreasury.gov.uk/prebud_pbr09_longtermfinances.htm.

[^4]:    Sources: HM Treasury, Budget 2008 and Pre-Budget Report 2009.

[^5]:    ${ }^{4}$ Oral evidence to the Treasury Select Committee, 16 December 2009, Q262,
    http://www.publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/uc180-iii/uc18002.htm.

[^6]:    ${ }^{5}$ See, for example, 'Christina Romer on the lessons of 1937', The Economist, 18 June 2009, http://www.economist.com/businessfinance/displaystory.cfm?story_id=13856176.
    ${ }^{6}$ A. Lilico, E. Holmes and H. Sameen, Controlling Spending and Government Deficits, Policy Exchange, London, 2009, http://www.policyexchange.org.uk/images/publications/pdfs/Controlling_Public_Spending__Nov 09.pdf.

[^7]:    ${ }^{7}$ For example, see the speech 'A new economic consensus?' by the Conservatives' then Shadow Chancellor Michael Howard on 11 March 2002 to the Institute for Public Policy Research (IPPR), which states: 'What I have sought to describe is the emergence of a consensus on monetary policy and how to achieve its objectives which has evolved over the last decade. The essential features were put in place by Norman Lamont and Kenneth Clarke. Gordon Brown has adapted them and taken a very considerable further step in charging the monetary policy committee of the Bank of England with the task of setting the interest rate' (http://www.totalpolitics.com/speeches/speech.php?id=81).

[^8]:    ${ }^{8}$ Paragraph 2.70 of HM Treasury, Pre-Budget Report 2009, December 2009, http://www.hmtreasury.gov.uk/prebud_pbr09_repindex.htm.
    9 'Going for growth: building Britain's future economy', 6 January 2010, http://www.theworkfoundation.com/Assets/Docs/Peter\%20Mandelson\%20speech\%206\%201\%2010.doc.
    ${ }^{10}$ Ben Broadbent and Adrian Paul of Goldman Sachs have argued that a more aggressive fiscal tightening may well not depress the pace of economic recovery, because the direct withdrawal of spending power through lower public spending and higher taxes would probably be offset by the impact of a weaker exchange rate. (Source: 'Fiscal consolidation and the exchange rate', UK Economics Analyst, Goldman Sachs, 4 September 2009.)

[^9]:    Notes and Sources: See next page.

[^10]:    ${ }^{11}$ Appendix to International Monetary Fund, The State of Public Finances Cross-Country Fiscal Monitor: November 2009, 3 November 2009, International Monetary Fund, Washington, DC, http://www.imf.org/external/pubs/ft/spn/2009/spn0925.pdf.

[^11]:    ${ }^{12}$ Further detail on the long-term pressures on spending and revenues that face the UK public finances was outlined in HM Treasury, Long-Term Public Finance Report, December 2009, http://www.hmtreasury.gov.uk/prebud_pbr09_longtermfinances.htm.
    ${ }^{13}$ Based on the practice adopted in recent Budgets and PBRs, the forecast horizon, which ended in 2014-15 in PBR 2009, would be extended to 2015-16 in PBR 2010.

[^12]:    ${ }^{14}$ Hansard, 15 December 2009, column 784,
    http://www.publications.parliament.uk/pa/cm200910/cmhansrd/cm091215/debtext/91215-0001.htm.

