

The IFS Green Budget

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Preface

Welcome to the Institute for Fiscal Studies' 2009 Green Budget, the first research publication of this our 40th anniversary year. I would like to take this opportunity to thank everyone who has worked at or with IFS over these four decades, for their contribution to making the institute the widely-respected body it is today. And thanks also to everyone who has taken the time and trouble to read our research or to hear us talk about it. We hope that it has been of interest and value to you.

As well as being our anniversary, these are extraordinary times for economic and fiscal policy. The Green Budget discusses some of the many issues confronting Alistair Darling as he prepares his second Budget as Chancellor of the Exchequer. With the outlook for the public finances, tax policy, public spending, living standards and poverty all high on the political agenda, IFS's ongoing efforts to advance knowledge in these areas have never been more relevant.

We are delighted once again this year to be producing the Green Budget in collaboration with Morgan Stanley. David Miles, Managing Director and Chief UK Economist, has had a long association with IFS as a research fellow and as an editor of *Fiscal Studies* between 1999 and 2004. He and his colleagues have contributed chapters on the economic outlook, on the funding of government borrowing and on the role of the government in the financial sector. Our thanks to them.

We are grateful also for financial support from the Economic and Social Research Council's Centre for the Microeconomic Analysis of Public Policy at IFS. It is only the level of support we receive from the ESRC through this channel that allows us to maintain the quality and quantity of our fundamental research, as well as our ability to respond to public policy developments in a timely manner, to the benefit of policymakers, parliamentarians, the media, business, civil society and the general public.

As with all IFS publications, the views expressed in it are those of the named authors of the particular chapters and not of the institute – which has no corporate views – or of the funders of the research.



Robert Chote

Director, Institute for Fiscal Studies

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1. Summary

Chapter 2: The public finances under Labour

- The evolution of the public finances since 1997 mirrors the first 12 years of Conservative governments after 1979: three years of impressive fiscal consolidation, eight years of drift (masked by economic overconfidence), and then a big jump in borrowing thanks to recession and newly-discovered structural weaknesses.
- Labour entered the current crisis with one of the largest structural budget deficits in the industrial world and a bigger debt than most OECD countries, having done less to reduce debt and – in particular – borrowing than most since 1997. Debt interest payments had fallen significantly since 1997, but less than in most OECD countries.
- Public sector borrowing is set to reach a post-war high next year, with public sector net debt in 2013–14 reaching its highest level since the early 1970s. Rising debt and cuts in investment will reduce the estimated net worth of the public sector – its assets minus liabilities – to less than half the level that Labour inherited from the Conservatives.
- The looming squeeze on public spending means that, even once the economy is back at trend in 2014–15, the Treasury plans imply that over the following two years only 21% of the ‘proceeds of growth’ will be consumed by the public sector. This is down from 44% under Labour to date and 29% under the previous Conservative governments.
- The Pre-Budget Report announced a net tax cut for 2008–09 and 2009–10 and a net tax rise for 2010–11 onwards. These help reduce tax revenues over the next two years, and increase them thereafter. This will smooth the path of after-tax incomes – national income less tax revenues will grow at a steady rate over these six years despite the forecast slowdown and subsequent recovery in the economy.
- From 1996–97 to 2007–08, the Treasury estimates that real national income rose by £12,700 per family – of which families are paying £5,600 more in tax, leaving them with £7,100 more income after tax. Between 2007–08 and 2013–14, the Treasury expects real national income to rise by £4,900 per family – of which £1,900 will be taken in tax, leaving an increase in after-tax income of £3,000.
- The revisions to the Treasury’s public finances forecasts in the PBR were far larger than average, but not dissimilar from those seen at the outbreak of the last recession in the early 1990s. There is always considerable uncertainty around all public finance forecasts, but there is good reason to be particularly wary in the current situation.

Chapter 3: The fiscal impact of the credit crunch

- The credit crunch has probably imposed a permanent cost on the exchequer of around 3.5% of national income – just over £50 billion a year in 2008–09 terms. The government has responded with a fiscal squeeze starting next year that will reach 2.6% of national income a year (or around £38 billion in 2008–09 terms) by 2015–16. This will largely take the form of a cut in spending as a share of national income.

- The Pre-Budget Report forecasts imply that public sector net debt will be 21.1% of national income higher in 2013–14 than in 2007–08. This is equivalent to almost £10,000 for every family in the UK. But only about one-fifteenth of this increase is due to the temporary fiscal stimulus announced in the PBR. The weaker outlooks for the economy and asset markets are the main drivers.
- If the average interest rate faced by the government remains at current low levels, then the fiscal squeeze may still have to remain in place until the early 2030s before public sector debt falls back below 40% of national income. But the cost to the taxpayer of financing this debt would remain low by historical standards, with net interest payments remaining well below the 3.0% of national income paid in the last year that the Conservatives were in office, 1996–97.
- But if the interest rate faced by the government rose to that of the mid-1990s, then the burden of financing debt would rise gradually but unsustainably, requiring a bigger fiscal tightening – further tax increases or spending cuts – to keep it in check. An even sharper rise in borrowing costs would make the intensification of the squeeze more urgent just to avoid debt and interest payments exploding.
- Much of the focus on the PBR has been on those who will lose from the increases in tax. But to return tax and spending to around their pre-credit-crunch levels, the PBR cut spending by much more than it increased taxes. As a result, real spending by government departments in 2013–14 could be around 3% or £22 billion lower than projected at Budget time. Thus the largest group of losers from the PBR will be those who would have benefited from this forgone public spending.

Chapter 4: The economic outlook

- The UK economy is already in recession and the near-term outlook is worse than it has been for many years. But our central forecast is that the UK will avoid a deep and prolonged recession, thanks to enormous monetary and substantial fiscal stimuli already announced. However, we expect a decidedly slow recovery.
- Our central forecast is similar to the Treasury's in the near term, but has weaker growth than the Treasury expects in 2012–13 and 2013–14. We agree with its assessment that the credit crunch will reduce the productive potential of the economy by about 4%, albeit more slowly than the Treasury expects.
- Weak consumer spending and investment will be the main drivers of the recession and continued below-trend growth. With credit conditions likely to remain tight, and given high indebtedness, consumers in aggregate will increase their saving rates and companies will cut investment.
- The risks to this outlook remain skewed to the downside. A sharp change in household behaviour could drive the saving rate much higher and consumer spending sharply lower. But there are upside risks too. In particular, there may be positive supply-side responses to the shocks, which would reduce the loss of productive potential and allow the economy to sustain a stronger recovery.

Chapter 5: The fiscal rules and policy framework

- In 1997, the government promised to abide by two fiscal rules that constrain how much it borrows and to what purpose. It claims to have met them over an economic cycle running from 1997 to 2006, but they had already lost credibility as a meaningful constraint on policy prior to the current crisis.
- Having overachieved the golden rule by delivering an average current budget surplus of £2 billion a year over the last economic cycle, Labour now expects an average current budget deficit of £37 billion a year over the next. This would be a much larger average deficit than in either of the two cycles under the previous Conservative government.
- The headline measure of public sector net debt could rise to around 170% of national income now that RBS is to be treated as a public corporation – or to around 240% if Lloyds Banking Group is treated similarly. But whether these investments will increase or reduce debt in the long term remains uncertain.
- Given the scale of the shock to the public finances resulting from the credit crunch, the government has sensibly decided to suspend the rules rather than taking the draconian decisions necessary to adhere to them.
- The government's 'temporary operating rule' offers it considerable flexibility in setting fiscal policy, but it may not be seen as much of a constraint on tax and spending decisions. In practice, the verdict of the financial markets may be the main constraint and the government's loss of credibility in the past may make a rise in its borrowing costs more likely.
- The government should consider adopting a target for future debt servicing costs and other commitments imposed on future taxpayers, rather than the stock of public sector net debt. The government could also commit to overachieving the golden rule by an amount sufficient to 'pre-fund' any increase in public sector pension costs that its actions impose on future taxpayers.
- The government should consider creating a properly funded independent body, with access to all the information currently available to the Treasury, to prepare fiscal forecasts and recommend to the Chancellor what fiscal tightening or loosening would be consistent with meeting the fiscal rules.

Chapter 6: Green Budget public finance forecasts

- Our central forecast is for public sector net borrowing and the current budget deficit to be £6.6 billion bigger this year, and £6.4 billion bigger next year, than forecast in the November 2008 Pre-Budget Report.
- Assuming that the economy evolves largely as the Treasury expects, over the medium term we are around 1.3% of national income – or around £20 billion in today's terms – less optimistic than the Treasury about the current budget balance and public sector net borrowing. This reflects a weaker outlook for receipts from income tax, National Insurance contributions and corporation tax.

- If the economy evolves as the PBR predicted, we would expect the current budget balance to move from a peak deficit of 5.7% of national income in 2009–10 to a deficit of 2.4% of national income in 2013–14. Of this 3.3% of national income forecast improvement, 1.8% of national income comes from a forecast fall in current spending and 1.5% of national income from a forecast increase in the tax burden.
- We would also predict higher levels of public sector net debt – excluding the impact of the temporary interventions in financial institutions – than the Treasury, expecting it to rise to 62.1% of national income in 2013–14. In contrast, the Treasury forecasts that it will be at 57.4% in that year.
- There is considerable uncertainty around any fiscal forecast, and even more so in the present climate. If the economy were to follow Morgan Stanley’s central case, we would expect the current budget in 2013–14 to be 2.8% of national income worse than the Treasury predicts. Under its ‘pessimistic case’, this gap rises to 6.4% of national income. Even under its ‘optimistic case’, where public sector net borrowing would be back in balance in 2013–14, net debt would still hit a peak of 47.3% of national income. This would be the highest level since 1977–78.
- Our forecasts suggest that to expect to achieve the improvement in the public finances set out in the PBR would require some combination of spending cuts and tax increases sufficient to raise an extra £20 billion or so by the end of the next Parliament. In current circumstances, the cost of doing nothing, should action be required, is larger than the cost of acting, only to find that it was unnecessary and can subsequently be reversed.

Chapter 7: Funding government borrowing

- The government’s ballooning budget deficit will soon require it to issue debt on a scale last seen at the end of the Second World War. On its 2008 Pre-Budget Report projections, the government will have to issue about £630 billion in gilts over the next five years, £300 billion more than it expected at Budget time.
- But demand for government debt is likely to remain firm. UK households, insurance companies and pension funds may all wish to hold more gilts, but the main source of additional demand is likely to be banks looking for liquid assets with little risk attached.
- The state of the economy means that demand for short-dated gilts is strong relative to demand for long-dated gilts. The Debt Management Office can therefore help keep the cost of government borrowing down by issuing relatively more short-dated gilts while current market conditions persist.
- Taken at face value, recent movements in the credit default swap (CDS) market suggest that investors see a more-than-7% chance that the UK government will default on its debt. But this probably reflects unusual developments in this market rather than a genuine belief that there is a 1-in-15 chance of default.
- Firm demand for gilts – combined with a sensible approach to issuance from the Debt Management Office – should keep gilt yields low by historical standards, allowing a further decline in the average coupon paid on the outstanding stock of gilts. But there is clearly a risk that the surge in issuance could push gilt yields higher. Even if it does

not, the total amount the government will have to pay in interest will rise because the stock of debt goes up so much.

Chapter 8: Government and the financial sector

- The financial crisis has forced governments in the UK and elsewhere to intervene in the financial sector in a way that had long been unthinkable.
- The scale of the intervention in the UK is enormous, but the long-term costs to taxpayers could well be small – they may even make a profit. That said, the downside risks are huge because the payoffs on the support measures are asymmetric: taxpayers are much more likely to make big losses than big profits.
- If the government forces the banks to lend on a scale and at interest rates more generous than they would have chosen for themselves, this could increase the direct cost to taxpayers. But if it does not force the banks to do so, the cost in lost tax revenue of deepening or extending the credit crunch could be greater.
- Three reforms could help stop the current difficulties reoccurring. First, reintroducing housing costs into the measure of inflation targeted by the Bank of England might provide limited protection against housing bubbles. Second, capital adequacy requirements need to be higher in the long term and counter-cyclical. Third, better incentives are needed to promote responsible lending and borrowing.

Chapter 9: Public spending: set for a squeeze

- The government is projecting much slower growth in public spending over its next Spending Review than over any of its previous reviews – and slower than under the 18 years of Conservative governments from 1979 to 1997. The increase of 1.1% a year in real terms would cut public spending by 2.5% of national income over three years – £37 billion in today's terms.
- The squeeze on Whitehall departments may be even more severe, given plausible scenarios for social security and tax credit costs, net debt interest payments, and other non-departmental spending. Total departmental spending may well have to be frozen in real terms over the three years.
- In that event, most departments are likely to see real cuts, with only high priorities such as health and education being allocated any real growth – and even these may see their budgets cut as a share of national income. Capital-intensive departments, such as transport and housing, are likely to suffer more than most due to the planned cash freeze on investment spending.
- The spending squeeze also has implications for some specific government objectives. Earnings indexation of the basic state pension is likely to be delayed, pushing up pensioner poverty. The government is also projected to miss its child poverty target for 2010 – and unless additional resources can be found, it could stay above the target for some time after 2010–11. Lower growth in education spending is likely to squeeze public funding for higher education, which could force funding reforms that may conflict with the government's objectives to widen and increase participation.

Chapter 10: Value added tax

- VAT is an important source of government revenue, forecast to raise £82.6 billion or 16% of total tax receipts in 2008–09. Like taxes on earnings, VAT distorts the choice between leisure and consumption. Because VAT is applied at different rates to different goods and services, it also distorts people's spending decisions and firms' production decisions. In its current form, it is mildly progressive, not regressive as some commentators suggest.
- The temporary cut in the standard VAT rate from 17.5% to 15% is a better stimulus measure than its critics suggest. We estimate that the VAT cut will reduce prices on average by 1.2%. Past experience suggests this may lead people to buy 1.2% more goods and services. Those dismissing it as a failure ignore the likelihood that things would have been even worse without it.
- The government considered an increase in the rate of VAT to 18.5% in 2011–12. This would have acted as a stimulus to expenditure before that date, as well as raising about £5 billion per year thereafter. Whilst, on its own, such a change would be less progressive than further increases in National Insurance, it would be possible to compensate most poorer households.
- Broadening the VAT base by extending the standard rate to most goods and services would remove many of the distortions to consumption decisions caused by the current system and would raise significant revenue even after more than compensating poorer households on average. For instance, a net £10 billion could be raised, with the rest of the revenues used to help meet the child poverty targets and compensate poorer households, households with children, those with disabilities and pensioners.

Chapter 11: Income tax and National Insurance

- Budget 2007 proposed a very simple set of combined income tax and National Insurance rates. Since then, however, changes have been announced, to come into effect by 2011–12, that would create a system where key elements of the two systems are misaligned and which involves a complicated structure for marginal tax rates on incomes above £100,000 a year.
- The government has proposed two 60% income tax bands, between £100,000 and £106,475 and between £140,000 and £146,475, to come into effect from 2010–11. These are likely to distort quite considerably the behaviour of people who expect to fall into these bands. If individuals at the top of the income distribution are more responsive to changes in their marginal tax rate than individuals lower down the distribution, there may be a case for having a lower marginal tax rate at the very top of the income distribution than slightly lower down. But it seems very unlikely that the optimal tax schedule has these two large spikes in it.
- It would appear that the Treasury has assumed that there will be a considerable behavioural response to the new 45% tax rate on incomes over £150,000. However, it is very difficult to estimate how much revenue reforms such as these would raise, as it requires accurate information about income growth at the top of the income distribution, the shape of the income distribution and the responsiveness of the very

rich to changes in their marginal tax rates. All of these are subject to a high degree of uncertainty, and the Treasury has so far declined to publish the assumptions it made when estimating how much these measures will raise.

- We present two alternative reforms that aim to realign the income tax and National Insurance thresholds in revenue-neutral and broadly distributionally-neutral ways.

Chapter 12: Business taxation

- Finance Bill 2009 will move the UK to an exemption system under which most foreign dividends will be exempt from UK taxation. This is a welcome move that will put the UK more in line with other European countries and should help UK multinationals to make more productive use of their assets.
- The planned increase in the small companies' rate of corporation tax from 21% to 22% in April 2009 has been deferred by one year as part of a package aimed at supporting small businesses during the recession. This deferral is unlikely to be very effective, and maintains a greater artificial incentive for businesses to change legal form for tax purposes. The government would be better to settle on a small companies' rate and support small businesses by other means. In the long term, it is not clear that there should be separate tax rates for large- and small-profit firms.
- Empty properties with a rateable value of less than £15,000 will be exempt from business rates for the financial year 2009–10, but will be taxed again from April 2010. Neither regime is neutral towards the use of land.

2. The public finances under Labour

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Summary

- The evolution of the public finances since 1997 mirrors the first 12 years of Conservative governments after 1979: three years of impressive fiscal consolidation, eight years of drift (masked by economic overconfidence), and then a big jump in borrowing thanks to recession and newly-discovered structural weaknesses.
- Labour entered the current crisis with one of the largest structural budget deficits in the industrial world and a bigger debt than most OECD countries, having done less to reduce debt and – in particular – borrowing than most since 1997. Debt interest payments had fallen significantly since 1997, but less than in most OECD countries.
- Public sector borrowing is set to reach a post-war high next year, with public sector net debt in 2013–14 reaching its highest level since the early 1970s. Rising debt and cuts in investment will reduce the estimated net worth of the public sector – its assets minus liabilities – to less than half the level that Labour inherited from the Conservatives.
- The looming squeeze on public spending means that, even once the economy is back at trend in 2014–15, the Treasury plans imply that over the following two years only 21% of the ‘proceeds of growth’ will be consumed by the public sector. This is down from 44% under Labour to date and 29% under the previous Conservative governments.
- The Pre-Budget Report announced a net tax cut for 2008–09 and 2009–10 and a net tax rise for 2010–11 onwards. These help reduce tax revenues over the next two years, and increase them thereafter. This will smooth the path of after-tax incomes – national income less tax revenues will grow at a steady rate over these six years despite the forecast slowdown and subsequent recovery in the economy.
- From 1996–97 to 2007–08, the Treasury estimates that real national income rose by £12,700 per family – of which families are paying £5,600 more in tax, leaving them with £7,100 more income after tax. Between 2007–08 and 2013–14, the Treasury expects real national income to rise by £4,900 per family – of which £1,900 will be taken in tax, leaving an increase in after-tax income of £3,000.
- The revisions to the Treasury’s public finances forecasts in the PBR were far larger than average, but not dissimilar from those seen at the outbreak of the last recession in the early 1990s. There is always considerable uncertainty around all public finance forecasts, but there is good reason to be particularly wary in the current situation.

2.1 Introduction

The past year has seen a spectacular deterioration in the outlook for the public finances and the abandonment (for the foreseeable future) of the fiscal rules that the current

Labour government imposed upon itself to persuade people that it would avoid the perceived sins of budgetary mismanagement committed by previous governments.

Ironically, the path of the public finances over the past 12 years and expected by the Treasury over the next five now looks uncannily similar to that trodden by the Conservatives from 1979 to 1997. Both parties inherited large structural budget deficits and turned them into sizeable surpluses within three years. Both then presided over eight years of fiscal drift masked by economic overconfidence, returning to unsustainably large structural deficits. Hubris then gave way to nemesis: in their 12th years in office, both governments faced a deep recession, combined with the discovery that the structural position of the public finances was much weaker than they had hitherto claimed. Borrowing ballooned, public sector debt climbed and retrenchment beckoned again.

The November 2008 Pre-Budget Report (PBR), far from being the largely consultative exercise that Labour had originally intended when inaugurating the event in November 1997, ended up with the appearance of two unusually large Budgets sandwiched together. The first was a giveaway Budget, cutting taxes and increasing spending in 2008–09 and 2009–10 in an attempt to make the recession shorter and shallower than it otherwise would be. The second was a takeaway Budget, cutting public spending and increasing tax revenues as shares of national income from 2010–11 onwards in an attempt to reduce the structural budget deficit and arrest the increase in public sector indebtedness. Both are reflected in the Treasury's latest set of public finance forecasts: the giveaway exacerbates the deterioration in the short term, while the takeaway begins a fiscal repair job expected to extend well beyond the next general election.

In this chapter we look at the evolution of the public finances under the current Labour government. We begin by looking at the state of the public finances when Labour took office in 1997 and at the objectives that the government set itself in light of that inheritance (Section 2.2). We then turn to the evolution of the public finances prior to the credit crunch and ask how well prepared this left the UK for the economic and fiscal shock we now confront (Section 2.3). After this, we look at the Treasury's assessment of the outlook over the next five years (Section 2.4) and at the uncertainty surrounding fiscal forecasts (Section 2.5). Section 2.6 concludes.

2.2 Labour's inheritance and objectives

In an analysis published by the Treasury in 1999, Labour characterised its inheritance from the Conservatives as follows:

On arrival in office in 1997 the Government was faced with a large structural fiscal deficit, low net investment, rising public debt and falling public sector net worth. Urgent action was needed. This situation had come about in part as a result of a lack of clear and transparent fiscal objectives, together with fiscal reporting that did not permit full and effective public and Parliamentary scrutiny. The Government therefore took steps to implement a new framework for fiscal policy.¹

¹ Page 7 of HM Treasury, *Analysing UK Fiscal Policy*, November 1999 (<http://www.hm-treasury.gov.uk/d/anfiscalp99.pdf>).

When Labour took office, the Conservatives were still trying to eliminate the large budget deficit that had opened up in the early 1990s. Adjusting for the degree of overheating or spare capacity in the economy, the underlying 'structural' budget balance² had deteriorated from a surplus of 1.5% of national income in 1981–82 to a deficit of 5.5% in 1992–93. The impact of the recession on revenues and spending pushed the overall deficit even higher: to a peak of 7.7% of national income in 1993–94.

Britain's exit from the European Exchange Rate Mechanism in September 1992 prompted a significant rebalancing of macroeconomic policy. Looser monetary policy – lower interest rates and a weaker exchange rate – was accompanied by a big fiscal tightening. After the 1992 election, the then Chancellor Norman Lamont announced significant tax-raising measures. Kenneth Clarke, who became Chancellor in May 1993, continued this process and also cut public spending as a share of national income. This almost halved the structural budget deficit between 1992–93 and 1996–97. Together with strong economic growth, this helped stabilise public sector net debt, which peaked at 42.5% of national income in 1996–97. Mr Clarke forecast in his November 1996 Budget that revenues would continue to rise and spending would continue to fall as shares of national income. The Treasury expected this to get the budget back into surplus by 2000–01 and to pull public sector net debt back down towards 40% of national income.

This set the scene for Labour's inheritance. In 1996–97, the Conservatives' last year in office, total spending by the public sector (known as total managed expenditure, TME) stood at 39.9% of national income, while government revenues totalled 36.4% of national income. This left 3.4% of national income (after rounding) to be covered by borrowing. If sustained, this would have left net debt climbing significantly for the foreseeable future.

A fifth of this borrowing financed the low level of investment that Labour complained of – 0.7% of national income – leaving a current budget deficit of 2.7% of national income. The Treasury estimates that part was explained by the impact of weak economic activity on tax revenues and welfare spending, but that there was still a 'structural' current budget deficit of 2.2% of national income. In other words, the Conservatives were borrowing not just to pay for investment, but also for the day-to-day running costs of government – and not just because spending was inflated and revenues depressed by a weak economy.

By international standards, Labour inherited a relatively large budget deficit but a debt level in the middle of the industrial country league table. Using internationally comparable figures, in 1996 the UK's structural general government deficit was the seventh highest of the 25 major industrial countries for which we have data. General government net financial liabilities (the broadest OECD net debt measure) was the tenth highest of the 27 countries for which data are available.³

Faced with this inheritance, Labour set out four main goals for its own management of the public finances:⁴

- to avoid an unsustainable and potentially damaging rise in public sector debt;
- to ensure future taxpayers are not left to pay for spending that does not benefit them;

² The budget balance that would be recorded if economic activity were at its sustainable 'trend' level, consistent with stable inflation.

³ See Table 2.1 later for more details.

⁴ Page 7 of HM Treasury, *Analysing UK Fiscal Policy*, November 1999 (<http://www.hm-treasury.gov.uk/d/anfiscalp99.pdf>).

- to avoid a bias against investment when public spending has to be squeezed;
- to 'support' monetary policy in keeping inflation on target.

With no track record of his own, the then Chancellor Gordon Brown saw a new policy framework as the best way to convince people that he would avoid what he saw as the fiscal laxity and bias against investment of previous Chancellors. The key elements were:

- the **Code for Fiscal Stability**, which set out the broad principles of fiscal policy as well as requiring the Treasury to be transparent about its goals and record; and
- publicly-stated **fiscal rules**, which turned broad principles of 'sound' fiscal policy into specific operational targets against which success or failure could be judged.

The fiscal rules made Labour's four broad objectives for fiscal policy more concrete:

- The **golden rule** required the public sector to borrow only to pay for capital investment, and to finance its remaining 'current' spending from tax and other revenues. In other words, the government had to keep the current budget (revenues minus current spending) in balance or in surplus. To avoid exacerbating swings in the economy, the rule had to be met on average over the cycle rather than every year.
- The **sustainable investment rule** required the government to keep the public sector's debt (net of its short-term financial assets) at a 'stable and prudent' level. The Treasury defined this as less than 40% of national income (GDP) at the end of each financial year of the economic cycle.

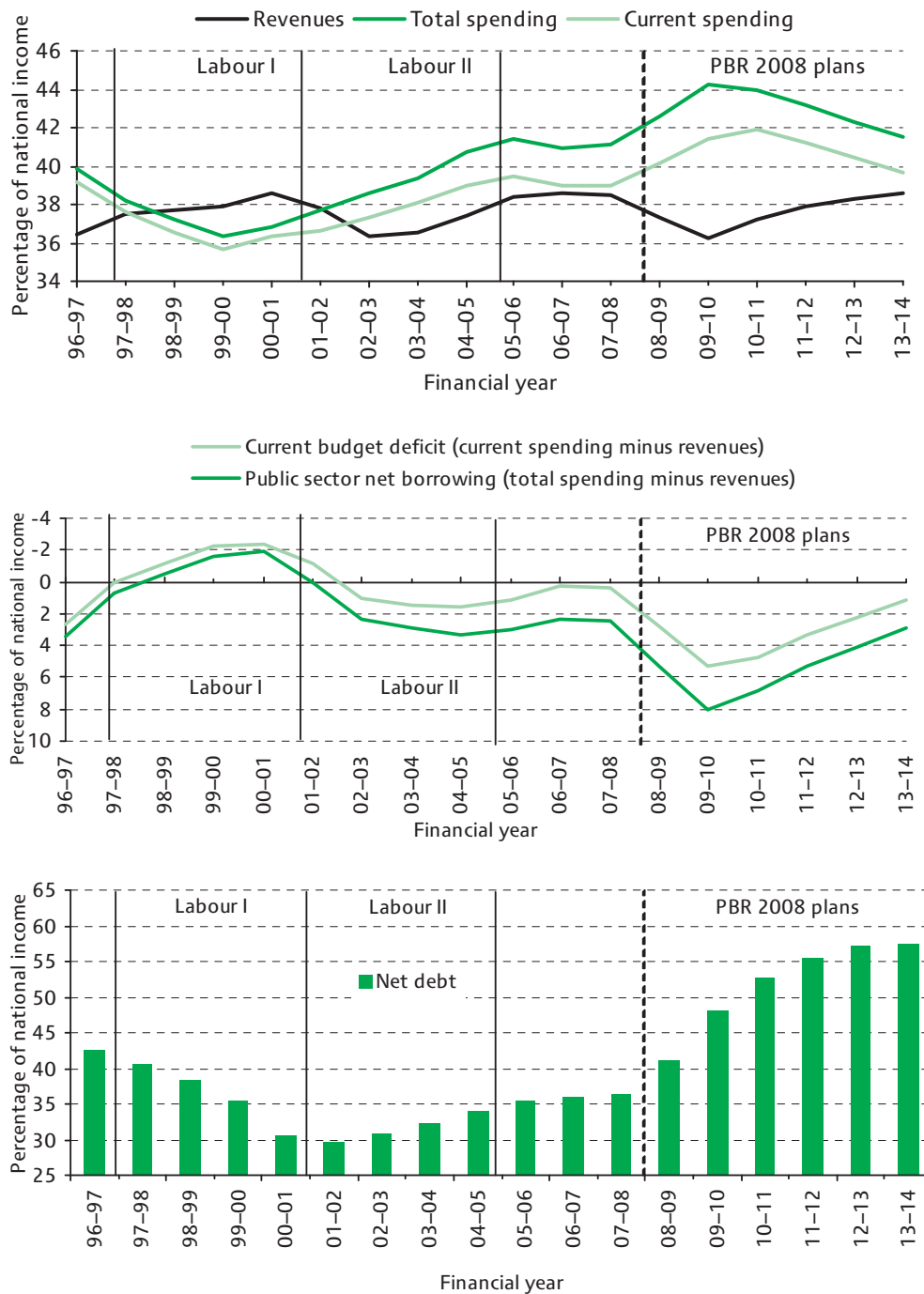
As we shall discuss in Chapter 5, the government claims to have complied with these rules over the economic cycle that it has chosen to define as running from 1997–98 to 2006–07. But in the November 2008 PBR, it conceded that it would not meet them over the next cycle: 'the Government will depart temporarily from the fiscal rules until the global shocks have worked their way through the economy in full'.⁵

2.3 Labour's record prior to the credit crunch

In its 1997 manifesto, the Labour Party promised to keep to the tight public spending plans laid down by Mr Clarke for two years. Mr Brown broadly kept that promise and reduced spending further in his third year at the Treasury, thanks partly to unintended departmental underspending. Despite beginning to spend more in the run-up to the 2001 election, public spending (TME) ended Labour's first term 3.1% of national income lower than it started (Figure 2.1). Most of the decline was in current spending, but public sector net investment also dropped, from 0.7% of national income to just 0.5% of national income. Notwithstanding Mr Brown's complaints about Conservative underinvestment, public sector net investment was lower on average in Labour's first term – at 0.6% of national income – than in any other four-year period since the Second World War.

⁵ Page 15 of HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm).

Figure 2.1. Revenues, spending, budget balances and debt



Note: Net debt measure excludes the impact of financial market interventions.
 Sources: HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls).

Over the same four years of Labour’s first term, government revenues rose by 2.2% of national income. This was thanks to: (i) real increases in fuel and tobacco duties (initiated by the Conservatives and then accelerated and maintained by Mr Brown until the November 1999 PBR); (ii) Budget measures, such as the abolition of repayable dividend tax credits; and (iii) above-average economic growth. Mr Brown also decided not to raise

income tax thresholds as quickly as incomes, which meant that a growing proportion of people's incomes was taxed at higher rates ('fiscal drag').

With revenues rising and spending falling as shares of national income, by the time of the 2001 election the total budget balance and the current budget balance had both moved into surplus. The total budget surplus reached 1.9% of national income in 2000–01, comprising a structural surplus of 1.1% of national income and a cyclical surplus of 0.8% of national income. Meanwhile, public sector net debt fell from 42.5% of national income in 1996–97 to 30.7% of national income in 2000–01, aided in part by using £22½ billion raised from auctioning 3G mobile phone licences (2.3% of national income) to pay off debt.

Mr Brown had described his determination to reduce borrowing in Labour's early years in office as 'prudence for a purpose'.⁶ The purpose became clear after 1999. The government reversed its earlier cuts in public spending, with health, education, and lower-income pensioners and families with children the main beneficiaries. However, as spending rose by 3.9% of national income over Labour's second term, tax revenues weakened unexpectedly when the stock market fell in 2000 and 2001, reducing tax payments by financial sector firms and their employees. The tax-raising Budget of April 2002 helped begin to reverse the decline, but government revenues still ended Labour's second term 1.2% of national income lower than they began it (even though the net effect of new policy measures during the second term had been to raise revenue).

The combination of higher spending and weaker tax revenues unwound the improvement in the public finances seen during Labour's first term. The current budget balance moved from a surplus of 2.4% of national income at the end of the first term to a deficit of 1.6% of national income at the end of the second. The swing in the overall budget balance was even larger, reflecting the fact that public sector net investment had at last begun to increase. The return to sizeable overall budget deficits began to push public sector net debt up again, reaching 34.1% of national income in 2004–05.

The 2004 Spending Review began to slow the increase in spending, with the Treasury's original plans showing real increases declining from 4.2% in 2005–06 to 2.6% in 2006–07 and 2.8% in 2007–08. In fact, spending growth came in at a higher-than-intended 4.3% in 2005–06 and then slowed more sharply than intended to 2.1% in 2006–07, before rebounding to 3.1% in 2007–08. But the average growth rate of 3.2% over the three years of the review was as predicted in the original plans. This left total spending at 41.1% of national income in 2007–08, up from 40.7% of national income in 2004–05.

Even with the slower spending growth planned for Spending Review 2004, IFS and other commentators argued in the run-up to the 2005 election that the government would have to announce further tax-raising measures or cut spending as a share of national income if it wished to meet its fiscal rules with the degree of comfort it had sought in the past.

Mr Brown rejected any such suggestion, claiming during the campaign that: 'People say we won't meet our fiscal rules. Once again, with the public finances strong, we will prove them wrong'.⁷ But, with the election out of the way, it became clear that the government

⁶ Mr Brown's 1998 Budget Speech: 'I said that this would be a Budget based on prudence for a purpose and that guides us also in our approach to public spending' (http://www.hm-treasury.gov.uk/bud_budget98_speech.htm).

⁷ 'Row over £11bn tax black hole', *Guardian*, 22 April 2005 (<http://www.guardian.co.uk/money/2005/apr/22/publicfinances.politics>).

was indeed on course to breach its rules and Mr Brown duly announced net tax increases in the 2005 PBR, the 2006 Budget and the 2006 PBR. This was followed by a relatively neutral 2007 Budget (at least in the medium term) and a relatively neutral 2007 PBR. Taken together, these post-election tax increases were sufficient to raise an extra £7.4 billion last year (£200 per family). Adding in the impact of a rebound in corporation tax receipts and a gradual increase in the income tax burden as people drifted into higher tax brackets, revenues in total rose from 37.4% of national income in 2004–05 to 38.5% of national income in 2007–08.

With revenues growing more quickly than spending, the current budget deficit narrowed from 1.6% of national income in 2004–05 to 0.4% of national income last year, while net borrowing dropped from 3.3% to 2.5% of national income over the same three years. But with borrowing remaining high relative to the growth rate of the economy, public sector net debt continued to rise – from 34.1% of national income in 2004–05 to 36.4% of national income in 2007–08. This formed the fiscal backdrop to the credit crunch.

Was the roof in good repair?

As it became clear that the mild economic slowdown predicted by the Treasury in the 2008 Budget would turn into something much worse, the political parties debated whether Labour’s stewardship of the public finances had left the UK well or poorly placed to cope with the huge increase in public sector borrowing that would follow:

- In his PBR statement, the Chancellor Alistair Darling said: ‘Mr Speaker, the economic crisis, and the action by governments across the world, will inevitably mean sharp increases in national debt relative to GDP. Again the UK will be no exception. But because we started from a stronger position, our debt will remain below that of most other major countries.’
- George Osborne, the Conservative Shadow Chancellor, responded: ‘He ran a huge budget deficit on the unstable premise that he could milk the City every year, and never considered what would happen to public finances when the money ran dry. He did not fix the roof when the sun was shining.’

So was the roof in good repair? And which party has the stronger claim to have been an effective manager of the public finances? To answer those questions, we now compare the evolution of the public finances under Labour from 1997 to their evolution under the Conservatives from 1979. We then focus on two snapshot comparisons:

- Did Labour enter recession with the public finances in better shape than they inherited from the Conservatives? (2007–08 vs 1996–97)
- Did Labour enter recession with the public finances in better shape than when the Conservatives entered recession in the early 1990s? (2007–08 vs 1989–90)

The Labour and Conservative eras compared

As Figure 2.2 illustrates, there are some notable parallels and differences in the way in which the public finances have evolved under the current and previous governments.

The structural budget deficit has evolved in a remarkably similar way. Both parties inherited large structural deficits from their predecessors: 4.8% of national income in 1978–79 and 2.8% of national income in 1996–97. If left unchecked, these would have seen debt continuing to rise considerably. So both governments began their terms with a

significant tightening of fiscal policy, achieving structural budget surpluses that peaked in their third years in office, at 1.5% of national income in 1981–82 and 1.1% of national income in 1999–2000. Thereafter, both presided over a steady drift back into the red. By year 11 of their terms in office, both governments were recording very similar structural deficits: 2.6% of national income in 1989–90 and 2.9% of national income in 2007–08.

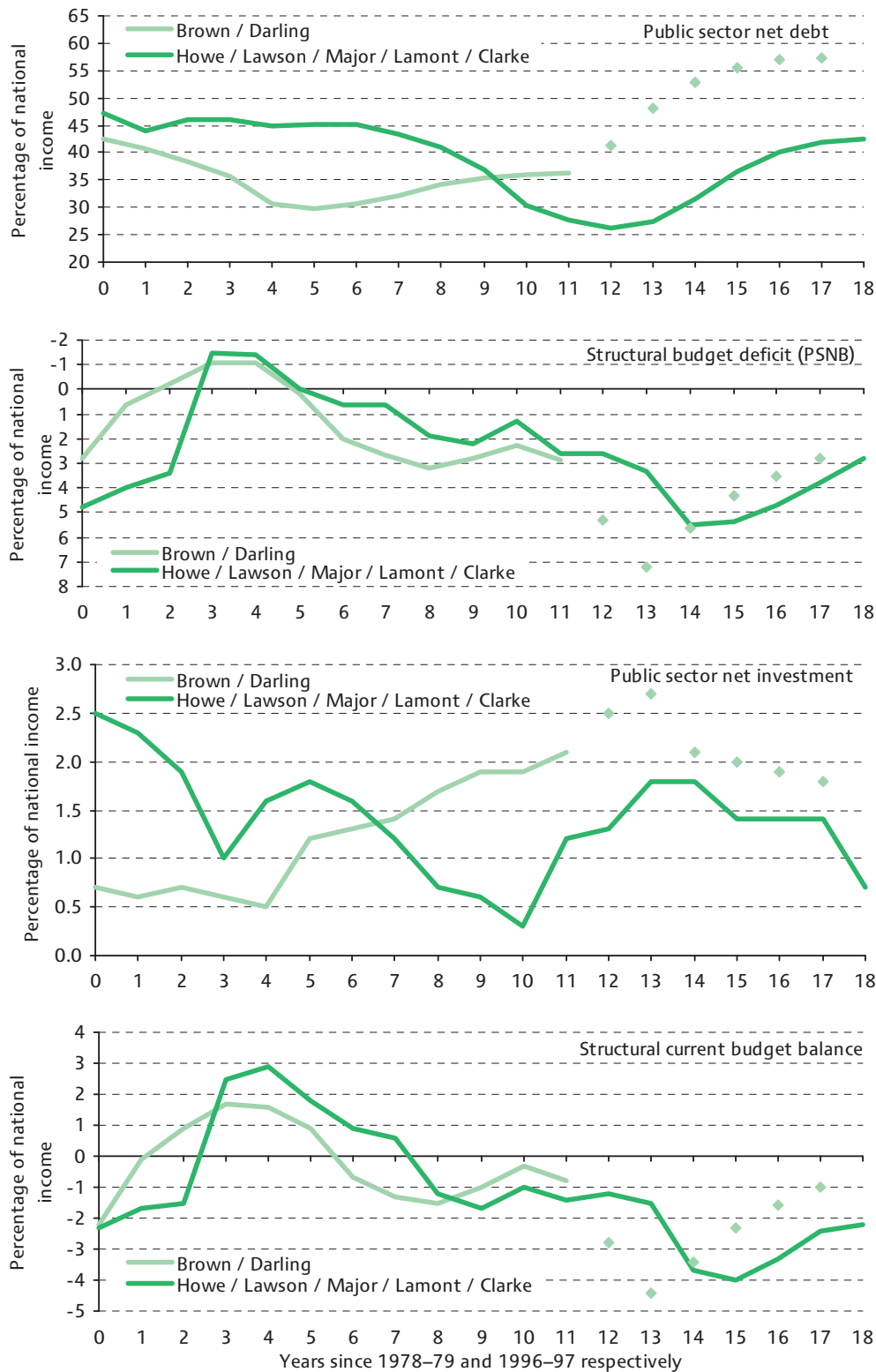
The evolution of public sector net debt differs rather more between the parties, because of movements in non-structural (i.e. cyclical) borrowing. Labour's move from structural budget deficit to surplus and back again was mirrored by a fall in public sector net debt – from the 42.5% of national income that it inherited in 1996–97 to a low of 29.7% in its fifth year (2001–02), since when debt has risen again to 36.4% of national income in year 11 (2007–08). By contrast, the Conservatives inherited a higher level of net debt than Labour in 1978–79 (47.1% of national income), but this did not fall as fiscal policy tightened in the early 1980s because the strengthening of the structural balance was offset by higher cyclical borrowing during the first Conservative recession. Net debt remained around 45% of national income until 1984–85, then fell sharply to a low of 26.2% of national income over the following six years (despite higher structural borrowing) as the boom of the mid-1980s generated an unsustainable cyclical surplus and a unsustainably high level of national income (both of which temporarily depressed the ratio of debt to national income).

The similarity in the paths of the structural budget deficit in part reflects Labour's willingness to borrow more to increase net investment. As Figure 2.2 shows, net investment actually fell over Labour's first term, but thereafter it increased strongly, and by last year net investment was three times higher than the level inherited from the Conservatives. In contrast, investment fell sharply during the Conservatives' first decade (although this in part reflected privatisation of capital-intensive industries). In their eleventh years in office, Labour was investing 75% more than the Conservatives.

If we exclude borrowing to finance investment, both parties inherited very similar structural current budget deficits in 1978–79 and 1996–97. Labour then achieved a smaller swing into surplus than the Conservatives during their first three years, followed by a smaller swing back into deficit over the next eight. But the patterns remain similar.

Looking forward, as we shall discuss further in Section 2.4, the Treasury predicts a sharp deterioration in the structural budget balance and current budget balance over the next two years – much sharper than in the equivalent period under the Conservatives. It hopes thereafter for a bigger improvement than under the Conservatives, but this will not be sufficient to prevent public sector net debt rising to levels significantly higher than it ever reached under the Conservatives. This would in part reflect the fact that, while Labour intends to squeeze public sector net investment as a share of national income, it does not plan to do so as severely as the Conservatives did following the last recession.

Figure 2.2. Debt, deficits and investment: Labour versus Conservatives



Sources: HM Treasury, Public Sector Finances Databank, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls); HM Treasury, Pre-Budget Report 2008, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

Were the public finances stronger than when Labour came to power?

As Table 2.1 shows, Labour spent 1.2% of national income more last year than the Conservatives did in their final year in office (£18 billion more in 2008-09 terms), with

the extra money more than accounted for by higher investment rather than current spending. But Labour increased tax and other revenues by an even larger 2.1% of national income (£30 billion). This paid for the extra spending and allowed Labour to borrow 0.9% of national income (£13 billion) less. The government was still borrowing last year to pay for some of its non-investment spending, but to a much lesser degree than the Conservatives did: at 0.4% of national income, the current budget deficit was much smaller in 2007–08 than the 2.7% of national income recorded in 1996–97.

Table 2.1. Key fiscal indicators: 1996–97 versus 2007–08

<i>% of national income unless otherwise stated Rankings: OECD member countries</i>	Labour's inheritance (1996–97)	Pre-crisis position (2007–08)	Change, 1996–97 to 2007–08 (% points)
Spending			
Total public spending <i>Place in OECD league table</i>	39.9% 20 th /28 <i>highest spending</i>	41.1% 11 th /28 <i>highest spending</i>	+1.2 2 nd /28 <i>largest increase</i>
Public sector net investment	0.7%	2.1%	+1.4
Revenues			
Tax and other revenues <i>Place in OECD league table</i>	36.4% 22 nd /28 <i>highest revenues</i>	38.5% 15 th /28 <i>highest revenues</i>	+2.1 3 rd /28 <i>largest increase</i>
Borrowing			
Public sector net borrowing: total	3.4%	2.5%	–0.9
Public sector net borrowing: structural <i>Place in OECD league table</i>	2.8% 7 th /25 <i>highest borrowing</i>	2.9% 3 rd /26 <i>highest borrowing</i>	+0.1 20 th /25 <i>largest reduction</i>
Current budget balance: total	–2.7%	–0.4%	+2.3
Current budget balance: structural	–2.2%	–0.8%	+1.4
Net worth, debt and debt interest			
Public sector net worth	17.7%	28.8%	+11.1
Public sector net debt <i>Place in OECD league table</i>	42.5% 10 th /25 <i>highest debt</i>	36.4% 11 th /28 <i>highest debt</i>	–6.1 10 th /25 <i>largest increase</i>
Public sector net debt interest <i>Place in OECD league table</i>	3.0% 16 th /28 <i>highest debt interest</i>	1.7% 10 th /28 <i>highest debt interest</i>	–1.4 20 th /28 <i>largest reduction</i>

Note: OECD figures relate to general government rather than public sector.

Sources: OECD, *Economic Outlook No. 84*, November 2008 (<http://www.oecd.org/oecdEconomicOutlook>);

HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls); Office for National Statistics.

Turning to the government's balance sheet, public sector net debt was 6.1% of national income (£89 billion) lower last year than in 1996–97, with the annual cost of public sector net debt interest 1.4% of national income (£20 billion) lower. Hence the

government's claim that it has reduced the level of public sector debt and left the UK better placed to cope with the increase now in prospect. But this figure for debt excludes the impact of the nationalisation of Northern Rock, which increased the overall level of public sector net debt to 43% of national income at the end of 2007–08. On this measure, the level of public sector net debt was slightly higher at the end of 2007–08 than at the end of 1996–97. As we explain in Section 5.2, most of this increase should be temporary and it is unclear how big a profit or loss the government will have made once Northern Rock returns to the private sector. So to exclude it from comparisons at this stage seems sensible. Public sector net worth – a broader measure of the government's position than public sector net debt as it includes the value of the public sector's non-financial assets and its long-term financial assets – is estimated to have increased by 11.1% of national income (£162 billion) between 1996–97 and 2007–08. This is as a result of the reduction in public sector net debt and the increase in public sector net investment over this period.

The comparisons of overall borrowing flatter Labour because economic activity was weaker relative to its sustainable 'potential' level in 1996–97 than it was in 2007–08. This automatically depressed tax revenues and pushed up welfare bills for the Conservatives. Adjusting for the state of the economy, the structural budget deficit was actually 0.1% of national income larger in 2007–08 than in 1996–97. But public sector net debt was still significantly lower in 2007–08 than in 1996–97, even on a structural basis.

The falls in public sector borrowing and indebtedness – and the small deterioration in the structural budget balance – between 1996–97 and 2007–08 occurred while most other industrialised countries were doing more to strengthen their public finances than the UK.

On the OECD measure, the UK had a structural budget deficit of 3.3% of national income in 2007. This was the largest structural budget deficit among the G7 economies and the third highest of the 26 industrial countries for which the OECD has data (behind only Hungary and Greece). Indeed, as the Conservative leader David Cameron has pointed out, half these OECD countries are facing the current slowdown with structural budget surpluses.

Although the structural budget deficit on this measure is slightly smaller than the one Labour inherited on taking office, the UK has slipped down the international league table, as 19 of the other 24 industrial countries for which we have comparable data have done more to reduce their structural deficits than the UK since 1996. In 1996, the UK had the third biggest structural deficit in the G7 (behind Japan and Italy) and the seventh biggest of the 25 OECD countries.

Turning to debt, as Mr Brown is fond of pointing out, in 2007 the UK had the second lowest ratio of general government debt to national income in the G7 after Canada. But our position in the broader industrial country league table looks less favourable – we had the eleventh highest debt ratio of the 28 countries for which the OECD has data for that year. Although the indebtedness of the larger economies matters more than that of the smaller ones in determining the total volume of government debt globally, it is not clear why we should compare ourselves to the G7 economies rather than to the broader range of OECD countries in judging how prudently we manage our public finances. One-third of OECD countries had net financial assets rather than net debts in 2007.

In 1996, we had the third lowest debt in the G7 and the tenth highest of 27 OECD countries. So we have moved slightly higher up the G7 league (with our debt now below that of Japan and Germany) but not really changed our position in the broader OECD league under Labour.

The sharp fall in annual debt interest payments in the UK between 1996 and 2007 is not that large relative to that which occurred elsewhere. In 2007 the UK had the tenth highest debt interest payments out of 28 OECD countries, whereas in 1996 it had the sixteenth highest. This move up the debt interest league table is due to the UK having the twentieth largest reduction out of the 28 OECD countries.

To summarise, the UK entered this recession with a similar structural budget deficit to that which it inherited from the Conservatives, but a smaller public sector net debt (if the impact of the nationalisation of Northern Rock is excluded). By international standards, we entered the recession with one of the biggest structural budget deficits in both the OECD and the G7 and a bigger public sector net debt than most OECD countries, although smaller than most G7 countries. Most OECD governments have done more to reduce their indebtedness and – in particular – their structural deficits than the UK while Labour has been in power.

Were the public finances stronger than at the time of the last recession?

If we compare the structural budget deficits in the years immediately before the latest two recessions, then Labour faced the downturn in a slightly weaker position than the Conservatives, with an underlying deficit of 2.9% of national income in 2007–08 compared with 2.6% of national income in 1989–90. However, the structural deficit also appears to be deteriorating more sharply early in this downturn than it did under the Conservatives and, as a result, is set to be much higher in the first year of recession than it was under the Conservatives. The Treasury expects the deficit to be 5.3% of national income this year compared with 2.6% of national income under the Conservatives in 1990–91. This largely reflects the impact of the credit crunch and the falls in the stock and housing markets, rather than policy decisions. (The fiscal stimulus announced in the 2008 PBR is expected to increase the deficit by only 0.6% of national income this year.)

The borrowing picture on the eve of recession looks even weaker in international perspective. On the comparable OECD measure, the UK has moved from having the second lowest structural deficit in the G7 in 1990 to the second highest in 2007, and from the thirteenth highest (of 23) in the OECD in 1990 to the fourth highest (of 26) in 2007.⁸

Labour is also beginning the current recession with a considerably higher level of public sector net debt than that with which the Conservatives entered the 1990 to 1991 recession. But the Conservative figures are clearly flattered by the Lawson boom.

In 1990 our debt was lower than that of most other OECD countries as well as most other G7 countries. We have moved down the broader international league table since the last recession, although it should be borne in mind that – unlike the structural budget deficit figures – comparing debt levels internationally is hampered by the fact that different countries will be at different points in their economic cycles.

In summary, we appear to be entering this recession with a bigger underlying budget deficit and a larger public sector net debt than the Conservatives entered the last recession with. As we shall see in the next section, the Treasury now expects the budget deficit and net debt to reach levels higher than seen in any year under the Conservatives.

⁸ Source: R. Chote, C. Emmerson and G. Tetlow, *The UK Public Finances: Ready for Recession?*, IFS Briefing Note 79, October 2008 (<http://www.ifs.org.uk/bns/bn79.pdf>), using data from annex table 28 of OECD, *Economic Outlook No. 83*, June 2008.

2.4 Labour's forecasts for the next five years

The November 2008 PBR included dramatic revisions to the Treasury's forecasts for the public finances for this year and for the following five years. These reflected new forecasts or assumptions for economic growth, movements in asset markets (notably the housing market and stock market) and other forecasting changes, plus the impact of tax and spending policy decisions announced in the PBR.

The main factor was the deterioration in the outlook for economic growth, which reduced expected tax revenues and increased expected social security spending. The Treasury estimates that every 1% cut in national income increases government borrowing by 0.5% of national income after one year and by a further 0.2% of national income a year later.⁹

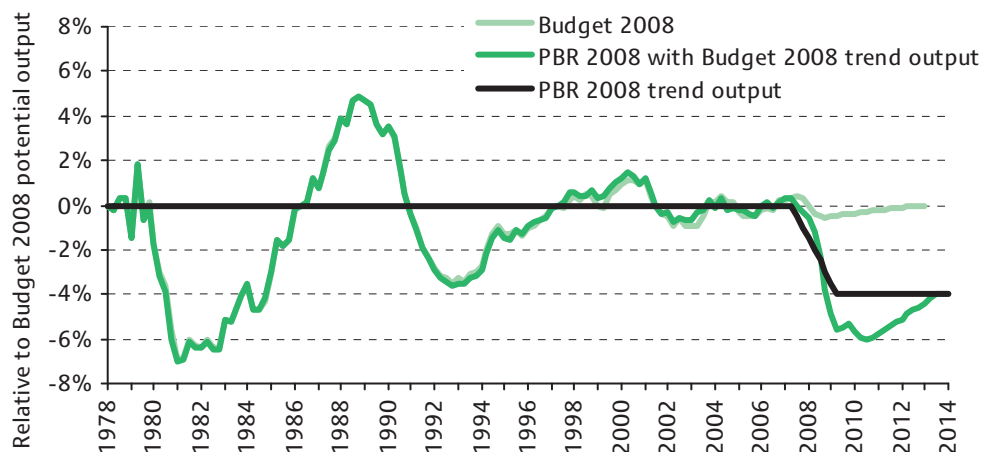
At the time of the Budget, the Treasury assumed for the purposes of its public finance forecasts that economic growth would slow modestly, from 3% in 2007–08 to 1¾% this year, before returning to its assumed trend rate of 2½% a year thereafter. In the PBR, it took a much gloomier view: that the economy would shrink by ¼% this year and ½% in 2009–10, before growing by 2% in 2010–11 and 3% in each of the next three years. Importantly, this growth profile implies not just that national output will be temporarily weaker than expected at the time of the Budget, but that there will be a permanent loss of national income as a result of the credit crunch.

Figure 2.3 shows the Treasury's recent estimates of the 'output gap' – the difference between the actual level of national income and the 'potential' level thought consistent with stable inflation. At the time of the Budget, the Treasury estimated that the economy was running at its full potential level in late 2006. It assumed that the economy's potential would grow by 2¾% thereafter (the 2½% used for its public finance projections, cited in the paragraph above, deliberately being ¼ percentage point below this to increase caution in the public finance forecasts) and that the actual level of economic activity would be slightly above potential in 2007 and slightly below it in 2008.

If the Treasury had maintained this assumption about the path of potential output, the much more pessimistic growth forecasts published in the PBR would have shown national income moving 6% below its sustainable potential, creating more spare capacity even than in the recession of the early 1990s. But the Treasury has instead assumed that the economy's potential will shrink by a total of 4% compared with the path assumed at Budget time, between mid-2007 and mid-2009. As Figure 2.3 illustrates, this means that the recession will create much less spare capacity and that there will be much less scope for the economy to rebound without running into inflationary bottlenecks.

⁹ Source: Page 18, table 2.K of S. Farrington, J. McDonagh, C. Colebrook and A. Gurney, 'Public finances and the cycle, Treasury Economic Working Paper 5, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_publicfinances.htm).

Figure 2.3. Changing Treasury estimates of trend output and the output gap



Sources: HM Treasury, *Budget 2008*, March 2008 (http://www.hm-treasury.gov.uk/bud_bud08_index.htm); HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

The significance of this assumption for the public finances is that much of the increase in borrowing as a result of the recession is expected to be persistent rather than to disappear as the economy recovers. In effect, the credit crunch has punched a 4% or £60 billion hole in the potential of the economy, creating an additional structural budget deficit of roughly 2.8% of potential output in 2009–10 or around £40 billion in today's terms. (See Section 4.3 for a discussion of the Treasury's view of the path of potential output.)

Table 2.2 shows the impact of the loss of potential output and changes in the output gap on the Treasury's borrowing forecasts through to 2012–13. The addition to borrowing from the loss of potential adds significantly to borrowing throughout the period, while the impact of cyclical weakness in the economy peaks in 2010–11 as growth heads above its trend rate and the output gap begins to close (as shown in Figure 2.3). The other main forecasting changes arise from movements in the housing market and equity market. The Treasury assumes that house prices and share prices will remain permanently below the levels assumed in the 2008 Budget, so some of the resulting addition to borrowing persists.

The forecasting changes alone would have pushed public sector net borrowing this year from the 2.9% of national income forecast in the Budget to 4.7% of national income. The deficit would then have been predicted to rise to 7.1% of national income in 2010–11 before declining modestly as the output gap closes and the cyclical addition to borrowing disappears. However, given the permanent additions to the structural deficit, borrowing would have not have been projected to fall below 4.5% of national income until 2014–15.

The changes in the borrowing forecasts between the Budget and the PBR reflect not just forecasting changes but also policy measures. The fiscal stimulus package – dominated by the temporary cut in VAT and the bringing-forward of proposed capital spending – is expected to add £9.3 billion to borrowing this year and £16.3 billion next year. Thereafter, policy measures – primarily cuts in prospective spending plans – reduce borrowing by £4.8 billion in 2010–11, £14 billion in 2011–12 and £22.5 billion in 2012–13.

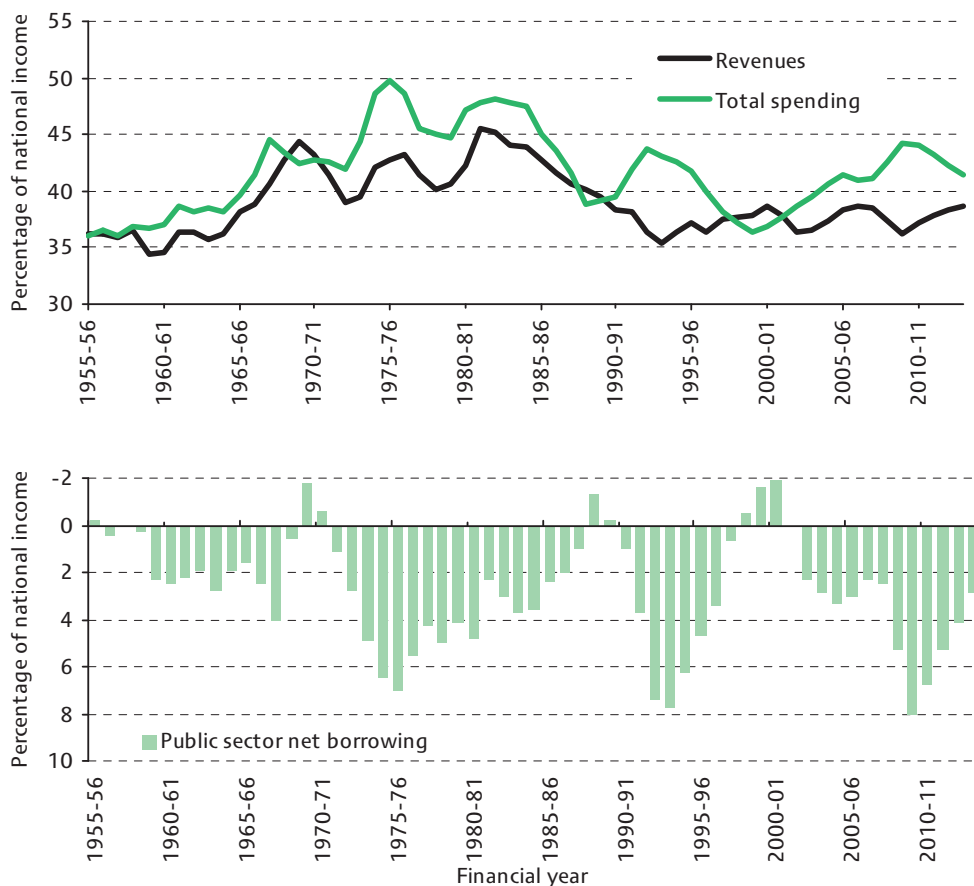
Table 2.2. Change in Treasury forecast for public sector net borrowing

£ billion (% GDP)	2008–09	2009–10	2010–11	2011–12	2012–13
Budget 2008	42.5	38	32	27	23
	(2.9%)	(2.5%)	(2.0%)	(1.6%)	(1.3%)
Lost potential output	+22.3	+38	+43	+46	+49
Cyclical movements	-2.3	+8	+16	+15	+10
Other (including asset prices)	+6	+18.5	+17.5	+11.5	+12.5
Budget 2008 + forecast changes	68.3	101.5	109.5	100	93.5
	(4.7%)	(6.9%)	(7.1%)	(6.1%)	(5.4%)
Net tax cut	6.6	12.4	3.3	-2.9	-4.0
Net spending increase	2.7	3.9	-8.1	-11.2	-18.6
PBR 2008	77.6	118	105	87	70
	(5.3%)	(8%)	(6.8%)	(5.3%)	(4.1%)

Note: Figures may not sum due to rounding.

Sources: Authors' calculations using HM Treasury, *Budget 2008*, March 2008 (http://www.hm-treasury.gov.uk/bud_bud08_index.htm) and HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

Figure 2.4. Revenues, spending and borrowing



Note: Borrowing is equal to total spending less revenues.

Sources: HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls); Office for National Statistics.

The net result of the forecasting changes and policy measures is that Labour expects to spend 42.6% of national income this year (40.1% on current spending plus 2.5% on public sector net investment). With revenues forecast at 37.3% of national income, this leaves a current budget deficit of 2.8% of national income (£41.2 billion) and public sector net borrowing of 5.3% of national income (£77.6 billion).

Public sector net borrowing is forecast to peak at 8.0% of national income next year, narrowly exceeding the previous post-Second-World-War high of 7.7% of national income recorded in 1993–94 (as shown in Figure 2.4). At 44.2% of national income, total public spending is expected to be at its highest level since 1985–86, while at 36.2% current receipts (the broadest measure of the tax burden) is expected to be at its lowest level since 1993–94.

Beyond next year’s peak, the Treasury expects public sector net borrowing to decline by 5.1% of national income over the following four years to 2013–14 (Table 2.3). Of this improvement, only 0.7% of national income reflects cyclical recovery in the economy. The remainder includes a cut in public sector net investment worth 0.9% of national income and a cut in the structural current budget deficit of 3.4% of national income. This in turn comprises a cut in structural current spending of 1.2% of national income and an increase in structural revenues of 2.3% of national income, both primarily due to policy measures.

Table 2.3. PBR forecasts for components of public sector net borrowing

	Economic growth	Output gap (% of potential output)	Current budget balance (% of GDP)			Net investment (% of GDP)	Net borrowing (% of GDP)
			Cyclical	Structural	Total		
2008–09	–¼	–0.3	0.0	–2.8	–2.8	2.5	5.3
2009–10	–½	–1.5	–0.9	–4.4	–5.3	2.7	8.0
2010–11	2	–1.9	–1.3	–3.4	–4.7	2.1	6.8
2011–12	3	–1.3	–1.0	–2.3	–3.3	2.0	5.3
2012–13	3	–0.7	–0.6	–1.6	–2.2	1.9	4.1
2013–14	3	–0.1	–0.1	–1.0	–1.1	1.8	2.9
2014–15	2½	0	0	–0.5	–0.5	1.8	2.3
2015–16	2½	0	0	0	0	1.8	1.8

Source: Tables B1 and B3 of HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm). Figures for 2014–15 and 2015–16 are Treasury illustrative projections, plus assumption that the economy will be back to sustainable levels of activity.

With the overall deficit remaining high relative to the growth rate of the economy, the Treasury expects public sector net debt to stabilise at 57.4% of national income in 2013–14. As Figure 2.5 illustrates, this would be higher than in any year for which we have consistent data and probably the highest since the early 1970s.

The Treasury also set out ‘illustrative projections’ in the PBR showing further reductions in the structural current budget deficit worth 0.5% of national income in 2014–15 and 2015–16 – presumably reflecting continued cuts in current public spending as a share of national income and the impact of fiscal drag – with public sector net investment held constant at its 2013–14 level of 1.8% of national income. This would eliminate the structural and overall current budget deficits, bring public sector net borrowing below 2% of national income and start to reduce public sector net debt as a share of national income.

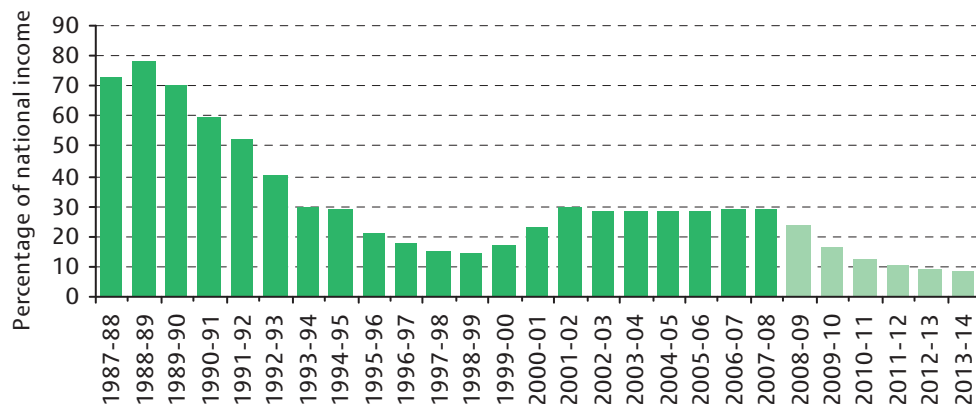
Figure 2.5. National debt and public sector net debt



Note: Years on the x-axis refer to calendar years for national debt and financial years for public sector net debt.

Sources: HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls); Debt Management Office (http://www.dmo.gov.uk/reportView.aspx?rptCode=D4A&rptName=37790042&reportpage=national_debt); Office for National Statistics.

Figure 2.6. Public sector net worth



Source: HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls).

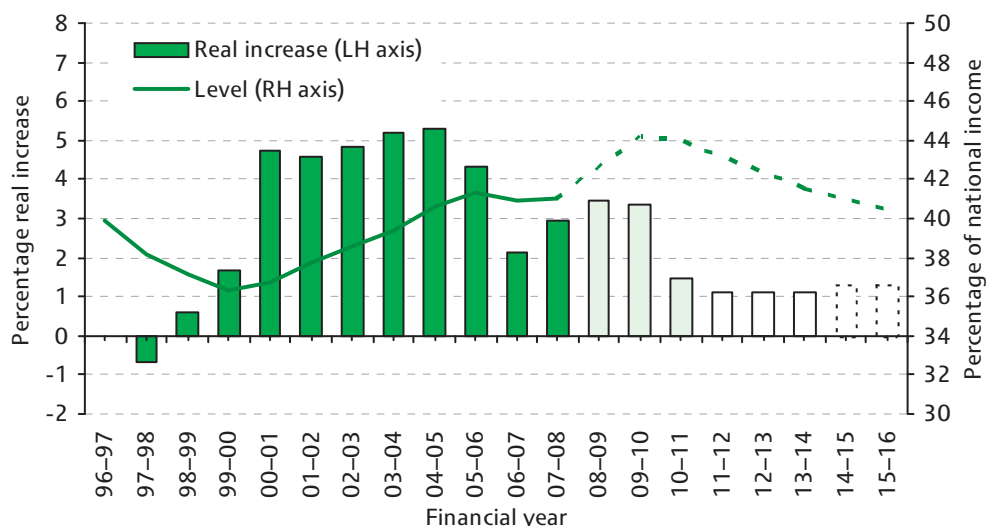
Labour’s critique of the state of the public finances that they inherited included a reference to ‘falling public sector net worth’ – the estimated net value of the public sector’s physical and financial assets minus its financial liabilities. Increased investment spending and falling public sector net debt led to public sector net worth increasing between 1998–99 and 2001–02. As shown in Figure 2.6, since 2001–02 public sector net worth has been stable at around 30% of national income. This is due to the positive impact of further increases in investment being cancelled out by the negative impact of rising public sector net debt. Looking forwards, the Treasury’s projections suggest that the scaling-back of investment spending as a share of national income and the sharp projected rise in public sector net debt will lead to a decline in public sector net worth. In 2013–14, the Treasury forecasts imply public sector net worth of just 8.7% of national

income, which would be half the level that Labour inherited from Conservatives (17.7% of national income).

Spending

The 2007 Comprehensive Spending Review (CSR) proposed to increase total spending by an average of 2.0% a year in real terms in 2008–09, 2009–10 and 2010–11, which was expected at the time to cut spending by 0.4% of national income. However, with the November 2008 PBR predicting that the economy will grow by an average of only 0.4% a year over these three years, real spending growth of 2.0% a year would actually increase spending as a share of national income. What is more, the Treasury has been forced to increase its estimate of average real spending growth to 2.7% a year to reflect the costs of the slowdown and policy measures. As a result, spending is expected to rise by 3.0% of national income over the CSR 2007 period. Ironically, the spending review that Labour intended to be the toughest of its time in office is now expected to see a bigger rise in spending as a share of national income than any of its predecessors.

Figure 2.7. Total managed expenditure



Notes: Light green bars represent the years covered by the 2007 CSR and white bars are illustrative Treasury plans for government spending for years not yet covered by a Spending Review, while the dotted white bars are not explicit government projections but are based on authors' calculations.

Sources: Table B1 of HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls) and table B10 and paragraphs 2.60 and 6.33 of HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm). GDP and GDP deflators up-to-date as of 23 December 2008 from HM Treasury website (http://www.hm-treasury.gov.uk/d/gdp_deflators.xls).

Looking further ahead, the PBR has also pencilled in real spending growth averaging 1.1% a year in real terms over the subsequent three years of what we presume will be Spending Review 2010, with current spending growing by 1.2% a year and capital spending being cut by 2.4% a year. With the economy expected to grow at an average rate of 3% a year over this period, this is expected to cut total public spending by 2.5% of national income – this would be the toughest spending review under Labour to date. The Treasury's illustrative projections for 2014–15 and 2015–16 assume that capital spending grows in line with the economy in these two years, presumably at its trend rate of 2.5% a year. If current spending continues to grow at the rate pencilled in for Spending

Review 2010, then this would give an average real growth rate in total spending of 1.3% over the two years, reducing it by a further 1.0% of national income.

Another way to characterise the changes in spending as shares of national income is to ask what proportion of the ‘proceeds of growth’ are spent publicly. In other words, what proportion of every extra pound of national output does the Treasury expect the public sector to spend? When considering this split, which is shown for various periods in Table 2.4, it is important to bear in mind that a large part of public spending is distributed within the population in the form of social security benefits and tax credits.

Table 2.4. Sharing the proceeds of growth: spending

	<i>Average annual real growth in:</i>			<i>% of GDP growth spent:</i>	
	GDP	TME	GDP minus TME	Publicly	Not publicly
Conservatives (1979–80 to 1996–97)	2.2	1.5	2.7	28.7	71.3
Margaret Thatcher’s premiership (1979–80 to 1990–91)	2.2	1.1	3.1	20.6	79.4
John Major’s premiership (1991–92 to 1996–97)	2.1	2.2	1.9	43.1	56.9
Labour to date (1997–98 to 2007–08)	2.9	3.2	2.8	44.2	55.8
Labour plans: all (2008–09 to 2013–14)	1.7	1.9	1.6	45.9	54.1
Labour plans: CSR 2007 years (2008–09 to 2010–11)	0.4	2.8	–1.3	285.3	–185.3
Labour plans: SR 2010 years (2011–12 to 2013–14)	3.0	1.1	4.5	14.4	85.6
Labour: illustrative projections (2014–15 & 2015–16)	2.5	1.3	3.3	21.5	78.5

Sources: As Figure 2.7.

Under the Conservatives from 1979 to 1997, the economy grew by an average of 2.2% a year, and TME grew by an average of 1.5% a year, in real terms. This meant that national income not spent publicly grew by 2.7% a year on average. So the public sector spent nearly 30% of additional national output, leaving 70% not being spent publicly. Under Labour to date, the public sector has spent just under 45% of the additional national output, leaving a little over 55% not being spent publicly. This is quite similar to what happened over John Major’s years as Prime Minister, although higher average annual growth in national income under Labour has meant that both public spending and national income less public spending have been able to grow faster than they did under Mr Major’s premiership.

The PBR 2008 forecasts suggest a rather different pattern going forwards. Over the three years from 2008–09 to 2010–11 – the CSR 2007 years – national income is expected to grow by just 0.4% a year on average while TME is forecast to grow by an average of 2.8% a year. The cash increase in TME over this period is forecast to be nearly three times larger than the cash increase in the economy (so public spending is set to absorb 285% of the proceeds of growth over this period). From 2011–12 onwards, the economy is forecast to grow more quickly as it returns to trend, and TME is forecast to grow more

slowly, such that only 14% of the proceeds of growth are projected to be spent publicly. From 2014–15, the economy is projected to remain at trend. If the government were to increase total spending at 1.3% a year until 2015–16, the Treasury would expect to spend just 21.5% of the proceeds of economic growth, leaving almost 80% not to be spent publicly.

We discuss the consequences for different departments of the projected squeeze during the Spending Review 2010 years in Chapter 9.

Revenues

The Treasury is expecting revenues to fall by 2.3% of national income (£34 billion) between 2007–08 and 2009–10, and then to rise by 2.4% (£35 billion) over the subsequent four years. As Table 2.5 illustrates, income tax and National Insurance contributions (NICs) together are the only tax from which the Treasury gains more during the tightening phase than it loses in the downturn. This reflects a combination of fiscal drag and the increases in income tax and NICs rates announced in the PBR to take effect from 2010–11. VAT revenues are sharply lower next year than in 2008–09, reflecting the temporary cut in the standard rate (see Chapter 10 for a discussion), but they remain lower than their 2007–08 level in 2013–14 thanks to relatively weak consumer spending and a rise in the ‘VAT gap’ between what HMRC thinks should be paid and expects to collect.

As with spending, we can compare the average annual real growth in the economy with average annual increases in tax revenues and, therefore, the average annual increase in the size of the economy less the overall tax take. This allows us to characterise changes in the tax burden as changes in how much of the ‘proceeds of growth’ are taken in revenues by the public sector. (See Table 2.6.)

Table 2.5. Revenue changes projected in PBR 2008 (% of national income)

	2007–08	2009–10	2013–14	Change 2007–08 to 2009–10	Change 2009–10 to 2013–14
Income tax & NICs net of tax credits	17.4	16.5	18.1	–0.9	+1.6
Corporation tax	2.9	2.4	2.7	–0.5	+0.3
North Sea revenues	0.5	0.6	0.4	+0.1	–0.2
VAT	5.7	4.9	5.4	–0.8	+0.5
Excise duties	2.9	2.9	2.7	0	–0.2
Other taxes & royalties	6.9	6.4	6.7	–0.5	+0.3
Net taxes & NICs	36.3	33.8	36.0	–2.5	+2.2
Other receipts etc.	2.2	2.5	2.6	+0.3	+0.1
Current receipts	38.5	36.2	38.6	–2.3	+2.4

Note: Components may not add to totals due to rounding.

Source: Table B14 of HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

Table 2.6. Sharing the proceeds of growth: tax

	Average annual real growth			% of GDP growth:	
	GDP	Current receipts	GDP minus current receipts	Taken in current receipts	Not taken in current receipts
Conservatives (1979–80 to 1996–97)	2.2	1.6	2.5	28.6	71.4
Margaret Thatcher’s premiership (1979–80 to 1990–91)	2.2	1.9	2.5	32.8	67.2
John Major’s premiership (1991–92 to 1996–97)	2.1	1.2	2.6	21.1	78.9
Labour to date (1997–98 to 2007–08)	2.9	3.5	2.6	44.1	55.9
Labour plans: all (2008–09 to 2013–14)	1.7	1.7	1.7	38.8	61.2
Labour plans: PBR 2008 giveaway (2008–09 to 2009–10)	–0.3	–3.4	1.6	n/a	n/a
Labour plans: PBR 2008 takeaway (2010–11 to 2013–14)	2.7	4.4	1.7	59.9	40.1

Sources: As Figure 2.7.

Over the period of Labour governments to date, tax revenues have grown by an average 3.5% a year. This is higher than that seen under Margaret Thatcher (1.9%) or John Major (1.2%). Higher growth in national income under Labour has meant that national income less that taken in tax has still grown at a comparable rate under Labour to what it did under either Mrs Thatcher or Mr Major (2.6% compared to 2.5% and 2.6% respectively). Overall under Labour, 44% of every extra pound in national income has been taken in tax compared with 29% over the 18 years of Conservative governments from 1979.

Again, a very different picture for the period going forwards is implied by the Treasury’s PBR forecasts. Over 2008–09 and 2009–10 – the PBR 2008 giveaway period – tax revenues are projected to decrease by 3.4% a year. This means that, despite the economy being forecast to shrink by an average of 0.3% a year over this period, national income that is not taken in tax could grow at 1.6% a year. Over the following four years, from 2010–11 to 2013–14 – the PBR 2008 takeaway years – tax revenues are forecast to grow by 4.4% a year on average, leading to national income not taken in tax being projected to continue growing at a similar rate to that seen over the two previous giveaway years (1.7% compared to 1.6%). Over the four takeaway years, this would lead to 60p of every pound generated in the economy being taken in tax revenue.

Converting the increases in national income, tax revenues and national income less tax revenues into pounds per family shows how large the proceeds of growth have been. Under Labour to date, between 1996–97 and 2007–08, the Treasury estimates that real national income has risen by £400 billion, or £12,700 for each of the 31.6 million families in the UK. Of this total, families are paying £5,600 more in tax (and seeing £5,600 more being spent publicly), leaving them with £7,100 more income after tax. Between 2007–08 and 2013–14, the Treasury expects real national income to rise by £156 billion, or £4,900 per family. Of this, £1,900 will be taken in tax (but with £2,300 being spent publicly), leaving an increase in after-tax income of £3,000. (These figures take into account all government revenue and not just taxes that are formally paid by specific households. The Treasury apparently believes that some taxes are actually ultimately paid by

businesses.¹⁰ However, this is incorrect; all taxes – even those formally levied on businesses – are ultimately paid by individuals.)

2.5 Uncertainty and the Treasury’s fiscal forecasts

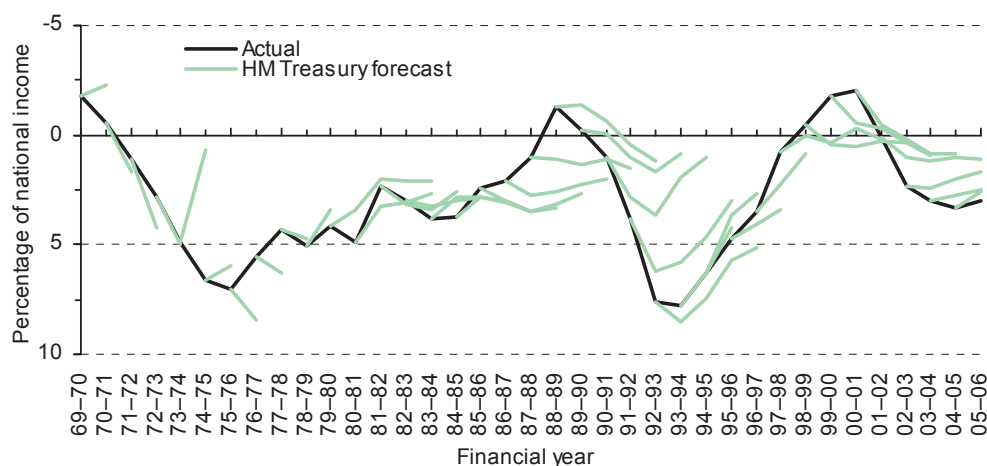
Forecasting the public finances is a difficult business at the best of times and these are certainly not the best of times. Even small errors in forecasts for spending or revenues can imply proportionately much bigger errors in forecasts of budget balances – the difference between the two. Given the uncertainty surrounding all fiscal forecasts – and the unusual degree of uncertainty surrounding the current ones – how confident can we be that the Treasury’s predictions of the deterioration in the public finances in the short term and the subsequent improvement in the longer term will be accurate?

Lessons from past experience

The Treasury’s past forecasting errors are a good place to start in assessing the confidence we should have in its latest predictions. If we assume that its forecasting performance in the future will be the same as that in the past, we can calculate the probability that the outcome will differ by a given amount in one direction or the other from the central forecast.

Figure 2.8 shows how Treasury forecasts of changes in public sector net borrowing since the early 1970s compare with what actually happened. We can see that the errors are relatively large and serially correlated: in other words, an optimistic forecast tends to be followed by another optimistic one and a pessimistic forecast by another pessimistic one.

Figure 2.8. Treasury public sector net borrowing forecasts



Source: Authors’ calculations, from data contained in HM Treasury, *End of Year Fiscal Report*, October 2007 (http://www.hm-treasury.gov.uk/end_of_year_fiscal_report.htm).

If the November 2008 PBR projections are correct, then recent forecast errors made by the Treasury will be large – but not unprecedented. For example, the March 2007 Budget

¹⁰ In 2007, a Treasury spokesman said, of similar analysis: ‘This analysis is based on flawed assumptions, as it incorporates taxes paid by companies rather than by individuals into the calculation’. Source: *Daily Express*, 29 May 2007 (<http://www.express.co.uk/posts/view/8225/How+you+pay+%C2%A36.60+an+hour+in+tax>).

forecast that the current budget balance in three years' time (2009–10) would be 0.4% of national income (as did the January 2007 IFS Green Budget). If the November 2008 PBR is correct, 2009–10 will actually see a current budget deficit of 5.3% of national income. An error of 5.7% of national income on the current budget three years out has only been made in two out of the Treasury's 26 Budget forecasts for public sector net borrowing since the March 1980 Budget. The two exceptions both came prior to the sharp recession of the early 1990s: the projection made in the March 1990 Budget for 1992–93 and the projection made in the March 1991 Budget for 1993–94, both of which underestimated public sector net borrowing by 5.9% of national income.

The apparent forecast errors shown in Figure 2.8 are likely to understate the true error that would have occurred had policies been unchanged. This is because previous Chancellors might well have responded to forecast errors by taking action to bring borrowing back on track. For example, in the late 1980s, when previous forecasts for borrowing were proving to have been too pessimistic, Nigel Lawson announced significant tax-cutting Budgets. Conversely, in the early 1990s, when previous forecasts for borrowing were proving too optimistic, Norman Lamont and Kenneth Clarke announced significant tax-increasing Budgets. A similar response also occurred under Mr Brown: Budget 2000 announced increases in public spending as a share of national income at a time when borrowing was better than previously forecast; conversely, Budget 2004 and Budget 2007 announced future cuts in public spending as a share of national income at a time when the outlook for borrowing appeared worse than previously forecast.

The Treasury's average absolute error in forecasting public sector net borrowing one, two, three and four years ahead for the period from 1977–78 to 2006–07 is shown in Table 2.7. This shows that even one year ahead, the average absolute error is 1.0% of national income, or £14.6 billion in today's prices.¹¹

Table 2.7. Treasury errors in forecasting public sector net borrowing

Time period	Average absolute error (% of national income)	Average absolute error (£ billion)
One year ahead	1.0	15
Two years ahead	1.5	22
Three years ahead	1.9	28
Four years ahead	2.4	35

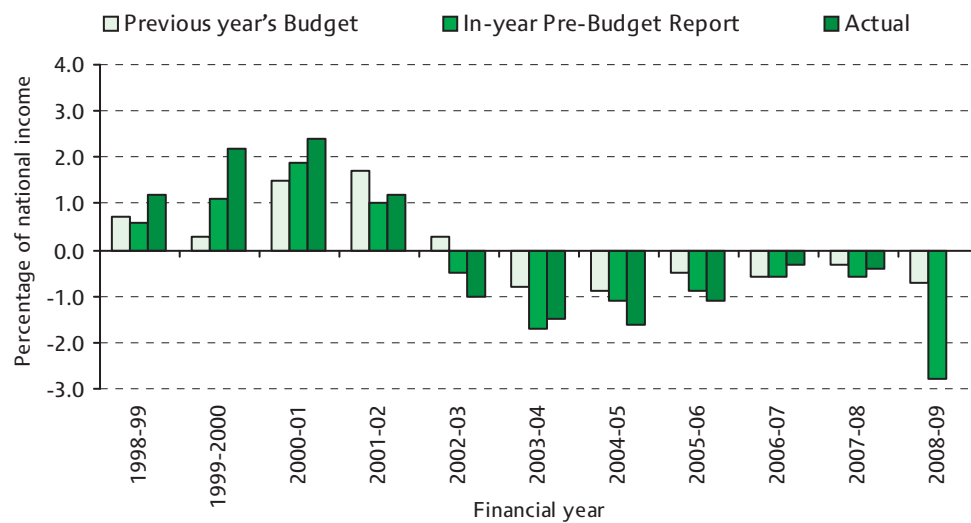
Notes: Figures in £ billion are calculated assuming HM Treasury forecast for national income in 2008–09 of £1,463 billion. Average absolute error is given over the period 1977–78 to 2006–07 for one year ahead, 1981–82 to 2006–07 for two years ahead, 1982–83 to 2006–07 (excluding 1996–97 to 1999–2000) for three years ahead, and 1983–84 to 2006–07 (excluding 1984–85 to 1986–87 and 1997–98 to 2000–01) for four years ahead.

Sources: HM Treasury, *End of Year Fiscal Report*, October 2007 (http://www.hm-treasury.gov.uk/end_of_year_fiscal_report.htm); authors' calculations.

¹¹ IFS forecasts show errors of similar magnitude. See C. Giles and J. Hall, 'Forecasting the PSBR outside government: the IFS perspective', *Fiscal Studies*, 1998, 19(1): 83–100 (<http://www.ifs.org.uk/publications/2250>).

Errors in forecasting public sector net borrowing can arise either from errors in forecasting the strength and composition of economic growth or from errors in predicting tax revenues and spending for any given level and composition of national income. (Labour claims that its forecasts are deliberately cautious, by assuming that economic growth will be a quarter of a percentage point lower each year than its true expectation; for a discussion, see Chapter 5.) In 1998, the Treasury concluded that only a minority of its previous errors in forecasting budget balances can be explained by errors in forecasting economic growth; the more significant factor in explaining previous forecast errors was found to have been errors in predicting tax revenues and spending for any given level and composition of national income.¹²

Figure 2.9. Treasury current budget balance forecasts



Sources: HM Treasury, various Budgets and Pre-Budget Reports.

As mentioned above, forecasting errors tend to be correlated from one year to the next. We can see this for the current government's short-term forecasts of the current budget balance in Figure 2.9. The Treasury was serially overpessimistic in its first three years of forecasts under Labour and serially overoptimistic in the following five. Budget 2006 saw the Treasury return to undue pessimism in its current budget forecast for 2006–07. But this has not persisted. The forecast made in Budget 2007 (although not PBR 2007) proved to be too optimistic. If PBR 2008 is correct, then the current budget deficit this year will be 2.8% of national income, which would be 2.1% of national income larger than the forecast of 0.7% made in Budget 2007. This would be the worst one-year forecast error since Labour came to power.

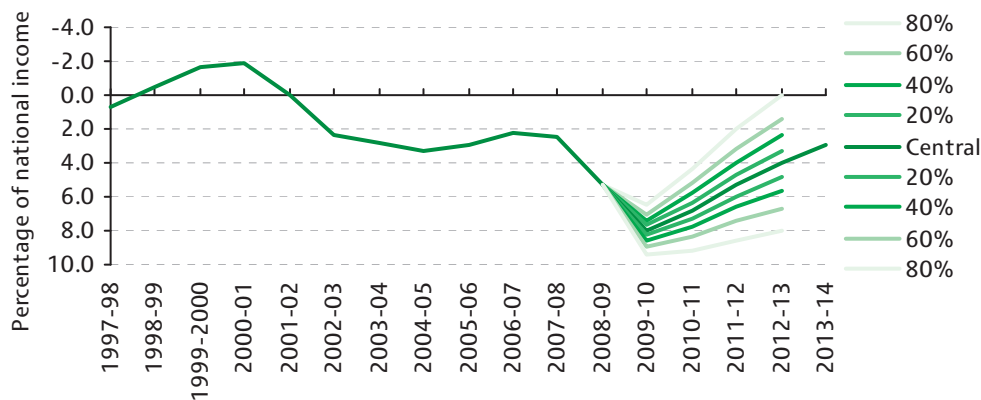
If we assume that the Treasury's latest forecasts will be as accurate as its past ones and that errors are normally distributed, we can put confidence intervals around the projections. Figure 2.10 shows confidence intervals around the central projections for net borrowing over the next four years. By assumption, it is just as likely that things will turn out better than the Treasury expects as that they will turn out worse than expected. This seems reasonable: looking at the Treasury's one-year- and two-year-ahead forecasts back

¹² See table B13 of HM Treasury, *Pre-Budget Report 1998*, November 1998 (<http://archive.treasury.gov.uk/pub/html/prebudgetNov98/index.html>).

to 1970 and 1980 respectively, the positive and negative errors roughly offset each other.¹³

We assume that the Treasury’s projection for 2008–09 is correct but that there is uncertainty thereafter. The presentation is analogous to the Bank of England’s inflation and growth forecasts in its quarterly *Inflation Report*.¹⁴ The ‘central’ estimate is the PBR forecast shown in Figure 2.1. Figure 2.10 shows that there is a 20% probability that the outcome will lie within the darkest bands either side of the central forecast, a 40% probability that it will lie between the next darkest bands, and so on. It shows that in 2012–13 there is slightly above a 1-in-10 chance on past performance that the deficit will have been eliminated. But equivalently there is a slightly above 1-in-10 chance that it will be in excess of 8% of national income. This assumes that the Chancellor does not announce any new policy measures – of course, were net borrowing to turn out to be worse than the current forecasts suggest, the Chancellor may, as his predecessors typically did, choose to implement new measures to bring borrowing back towards previous forecasts.

Figure 2.10. Probabilities for net borrowing outcomes



Sources: Historic figures come from HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls). Central projections are taken from HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm) and assume that the forecast for 2008–09 is correct; methodology for computing fan charts taken from C. Emmerson, C. Frayne and S. Love, ‘Updating the UK’s Code for Fiscal Stability’, IFS Working Paper W04/29, 2004 (<http://www.ifs.org.uk/publications/3163>).

The fan chart presented in Figure 2.10 is likely to understate the true level of uncertainty that is present in the Treasury’s – or indeed anyone else’s – fiscal projections at the present time. The shocks to the economy, and their knock-on impact on tax revenues, have been very large, which will make the future path of tax revenues more uncertain. For example, projecting the medium-term outlook for corporation tax revenues from financial sector firms, or stamp duty revenues from house purchases, will be even more difficult than it is in more normal circumstances.

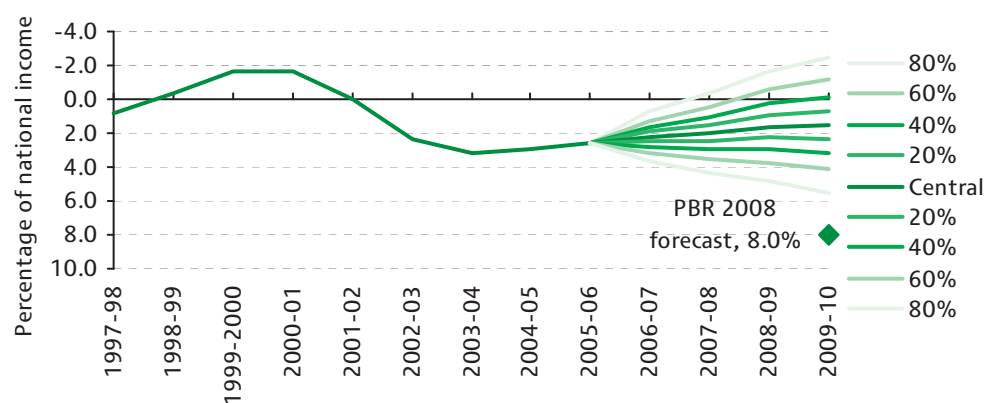
This point is highlighted in Figure 2.11, which shows the forecasts for public sector net borrowing set out in the March 2005 Budget in our fan chart format. The March 2005

¹³ Table 2.2 of HM Treasury, *End of Year Fiscal Report*, October 2007 (http://www.hm-treasury.gov.uk/end_of_year_fiscal_report.htm).

¹⁴ <http://www.bankofengland.co.uk/publications/inflationreport/index.htm>.

Budget forecast that borrowing would fall from 2.9% of national income in 2004–05 to 1.5% of national income in 2009–10. As can be seen from the fan chart, the likelihood that borrowing would actually turn out to be 8.0% of national income was extremely small on the basis of previous Treasury forecast errors. Indeed, the estimated likelihood of borrowing in 2009–10 turning out to be 8.0% of national income or worse on the basis of the Budget 2005 forecasts was – at least on the assumptions on which our fan charts are based – just 1 in 50. The January 2005 IFS Green Budget was less optimistic than the March 2005 Budget: it projected that public sector net borrowing in 2009–10 would be 2.5% of national income rather than 1.5% of national income. But even on the basis of this less optimistic projection, the chances that borrowing would turn out to be 8.0% of national income or worse were still only 1 in 25.

Figure 2.11. Probabilities for net borrowing outcomes, Budget 2005 forecast



2.6 Conclusions

The past year has seen a dramatic deterioration in the outlook for the public finances, reflecting both permanent and temporary consequences of the credit crunch. The current government did not do as much as most comparable countries to strengthen the public finances during the period leading up to the current crisis. We therefore entered the crisis already burdened by one of the largest structural budget deficits in the industrial world and a bigger public sector debt than most OECD countries.

The deterioration revealed in the PBR reinforces the eerie similarity between the path of the structural budget deficit under this government and its Conservative predecessor: three years of consolidation, eight years of drift and then a sudden downward lurch as the onset of recession coincided with the discovery of a sudden weakening in the underlying structural position. But fortunately for this government – as for other countries – borrowing costs have been declining, so the burden of interest payments is considerably lower now than it was in 1997.

Looking forward, the government will add to its borrowing through the fiscal stimulus package, before tightening policy to get borrowing down again. This will involve a tight squeeze on public spending and measures to recoup some of the tax revenue lost as a result of the crunch. Such is the size of the hole into which we have fallen that the

Treasury thinks it will be seven more years before the current budget returns to balance and before public sector debt begins to fall again.

The uncertainty around any set of public finance forecasts is considerable. Given the question marks surrounding the eventual depth and duration of the current recession – and the size of any underlying structural deterioration – the Treasury’s latest projections (and those of anyone else) must be more prone to revision than normal.

3. The fiscal impact of the credit crunch

Robert Chote, Carl Emmerson and Gemma Tetlow (IFS)

Summary

- The credit crunch has probably imposed a permanent cost on the exchequer of around 3.5% of national income – just over £50 billion a year in 2008–09 terms. The government has responded with a fiscal squeeze starting next year that will reach 2.6% of national income a year (or around £38 billion in 2008–09 terms) by 2015–16. This will largely take the form of a cut in spending as a share of national income.
- The Pre-Budget Report forecasts imply that public sector net debt will be 21.1% of national income higher in 2013–14 than in 2007–08. This is equivalent to almost £10,000 for every family in the UK. But only about one-fifteenth of this increase is due to the temporary fiscal stimulus announced in the PBR. The weaker outlooks for the economy and asset markets are the main drivers.
- If the average interest rate faced by the government remains at current low levels, then the fiscal squeeze may still have to remain in place until the early 2030s before public sector debt falls back below 40% of national income. But the cost to the taxpayer of financing this debt would remain low by historical standards, with net interest payments remaining well below the 3.0% of national income paid in the last year that the Conservatives were in office, 1996–97.
- But if the interest rate faced by the government rose to that of the mid-1990s, then the burden of financing debt would rise gradually but unsustainably, requiring a bigger fiscal tightening – further tax increases or spending cuts – to keep it in check. An even sharper rise in borrowing costs would make the intensification of the squeeze more urgent just to avoid debt and interest payments exploding.
- Much of the focus on the PBR has been on those who will lose from the increases in tax. But to return tax and spending to around their pre-credit-crunch levels, the PBR cut spending by much more than it increased taxes. As a result, real spending by government departments in 2013–14 could be around 3% or £22 billion lower than projected at Budget time. Thus the largest group of losers from the PBR will be those who would have benefited from this forgone public spending.

3.1 Introduction

When Alistair Darling delivered the November 2008 Pre-Budget Report (PBR), he revealed a sharp deterioration in the outlook for the public finances, with public sector net borrowing set to rise to a post-war high next year and public sector net debt set to rise to a peak in 2013–14 not exceeded since the early 1970s (see Chapter 2).

The government will add to borrowing and indebtedness this year and next, by cutting taxes and increasing spending to provide a short-term fiscal stimulus that it hopes will make the recession shorter and shallower than it otherwise would be. From 2010–11 onwards, the government proposes to reduce borrowing and eventually bring public sector net debt down again by cutting spending and increasing taxes.

This prospect has provoked lively debate among politicians, commentators and even bishops, regarding the burden that the underlying increase in public sector indebtedness will impose upon future generations. This chapter briefly explores some of these issues. Section 3.2 looks at the outlook for public sector net debt and interest payments. Section 3.3 looks at the fiscal tightening announced in the PBR and asks how this affects people in their capacity as taxpayers and as consumers of public services. Section 3.4 concludes.

This chapter focuses on the impact of the current recession on government revenues and spending, and in particular focuses on the impact of the tax and spending measures that were explicitly costed in the PBR. There have also been a series of measures announced to deal specifically with issues related to the financial sector – including, for example, the state interventions in Northern Rock, Bradford & Bingley, RBS and the Lloyds Banking Group. These are not discussed in this chapter. In what follows, we implicitly assume that, in the long run, these interventions have no net impact on the level of public sector debt. Chapter 8 argues that the eventual cost is likely to be small and that the taxpayer may even make a profit. But clearly the nature of the guarantees and insurance that the government is offering poses the risk of big losses.

3.2 Public sector debt and debt interest

The cost of the crunch and the policy response

In simple terms, judging from the forecasting changes made by the Treasury between the March 2008 Budget and the PBR, we can think of the fiscal cost of the current crisis as having four main components.

The most important is the loss over two years of 4% of the economy's productive potential. This will permanently cost the exchequer around 2.8% of national income (or £41 billion in 2008–09 terms) a year in lost revenue and higher social security spending. There is a further permanent hit of around 0.6% of national income (or £9 billion in 2008–09 terms), predominantly reflecting the fact that the Treasury assumes that property and share prices will stay well below the levels assumed at Budget time.

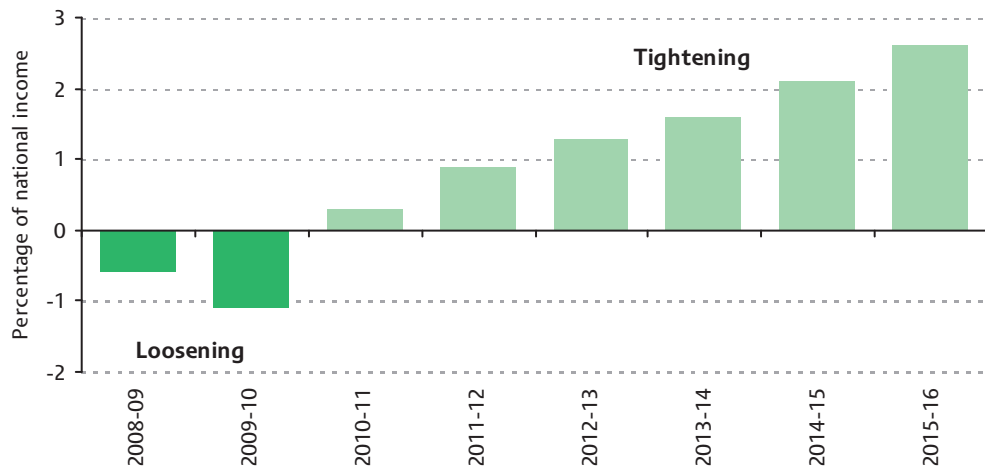
In addition to these permanent additions to the structural budget deficit, there is also a temporary addition to borrowing of around £51 billion in cash terms between now and when the economy is expected to return to full potential in 2014–15, reflecting the fact that economic activity is expected to fall further below its potential than thought at Budget time (implying lower tax revenues and higher social security spending). The government has also chosen to increase borrowing by £25 billion this year and next through its discretionary fiscal stimulus package. The equivalent permanent cost of financing these two temporary increases in borrowing would be around £3.5 billion a year in perpetuity, shrinking as a share of national income over time.

Overall, we could summarise the cost of the crunch as a permanent loss to the exchequer of around 3.5% of national income or just over £50 billion a year in 2008–09 terms.

As we shall see later, in the absence of a policy response 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. So the government responded in the PBR by announcing tax increases and cuts in projected spending plans from 2010–11 onwards. As we describe in more detail in Chapter 2, these policy measures will have the effect of reducing the structural deficit

gradually over the six years from 2010–11 – and eventually by 2.6% of national income (or around £38 billion in 2008–09 terms) in 2015–16 (see Figure 3.1). Roughly speaking, by then the tightening would be made up of a net tax increase of 0.25% of national income, a cut in investment spending of 0.5% of national income and a cut in current spending of 1.85% of national income, relative to the figures projected or implied in the Budget.

Figure 3.1. Discretionary policy change projected in the PBR



Sources: HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); authors' calculations.

The PBR forecasts for debt and debt interest

The combined effect of these forecasting changes and discretionary policy changes is that the Treasury forecast in the PBR that public sector net debt would climb from £526.8 billion at the end of 2007–08 to £1,084 billion at the end of its debt forecasting horizon in 2013–14, an increase in cash terms of £557.2 billion. This is expected to equate to a rise from 36.3% to a peak of 57.4% of national income over the same six years, an increase of 21.1% of national income. This is equivalent to about £310 billion in today's terms, or almost £10,000 for each of the 31.6 million families in the UK.

Table 3.1 attempts a rough decomposition of this increase in indebtedness between the various factors we have discussed. It suggests that at Budget time, the government was already looking for debt to increase by about 1.4% of national income.¹ We estimate that the permanent loss of potential output will increase public sector net debt by around 13% of national income by the peak year of 2013–14. The additional cyclical borrowing is projected to add about another 2.6% of national income, while the loss of revenues from house and share prices being expected to stay below the levels anticipated at Budget time (plus other smaller factors) will add about 4.3% of national income.

¹ The Treasury did not publish a forecast for net debt in 2013–14 in the 2008 Budget. We assume here that the Treasury would have been forecasting a strengthening of the current budget by a further 0.3% of national income in 2013–14, as it was forecast would happen in the two preceding years, and that net investment would remain at 2.3% of national income.

Table 3.1. Change in public sector net debt, 2007–08 to 2013–14

	% of national income
Rise already implied in Budget 2008	+1.4
Pre-Budget Report forecast changes	+22.0
‘Denominator’ effect of lower GDP in 2013–14 on a given cash debt stock	+1.9
4% loss of potential output	+13.2
Additional cyclical borrowing	+2.6
Revenue losses from asset markets etc.	+4.3
Fiscal stimulus (2008–09 to 2009–10)	+1.4
Policy tightening (2010–11 to 2013–14)	–3.7
Total change	+21.1

Sources: HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); authors’ calculations.

So, the Budget legacy and the forecasting changes in the PBR would have left the Treasury expecting public sector net debt to rise by a further 22% of national income – to a peak of 59.8%. To this largely crisis-related increase, the Chancellor has chosen to add a further 1.4% of national income in 2013–14, reflecting the cost of the fiscal stimulus package (of which the temporary cut in the standard rate of VAT – discussed in Chapter 10 – contributes around half). This would have taken debt in 2013–14 to 61.1% of national income. Then, in the opposite direction, the tightening from 2010–11 onwards reduces the forecast level of public sector net debt in 2013–14 by 3.7% of national income.

This decomposition puts the recent debate over the scale of the fiscal stimulus in some context. In December 2008, the Conservative Shadow Chancellor George Osborne seized on criticism of the temporary VAT cut by German Finance Minister Peer Steinbrück:

As David Cameron and I have been doing throughout this financial crisis, Mr Steinbrück pointed out that fiscal stimulus will achieve nothing except to ‘raise Britain’s debt to a level that will take a whole generation to work off’.²

But, as Table 3.1 makes clear, the VAT cut and the fiscal stimulus package more broadly will make little difference to the scale of the deterioration in the UK’s public finances over the next five years. The stimulus package contributes only around one-fifteenth of the increase in public sector net debt that the Treasury expects by 2013–14. And the cost of the giveaway is more than recouped before then by the subsequent spending cuts and tax increases announced in the PBR, as is clear from Figure 3.1.

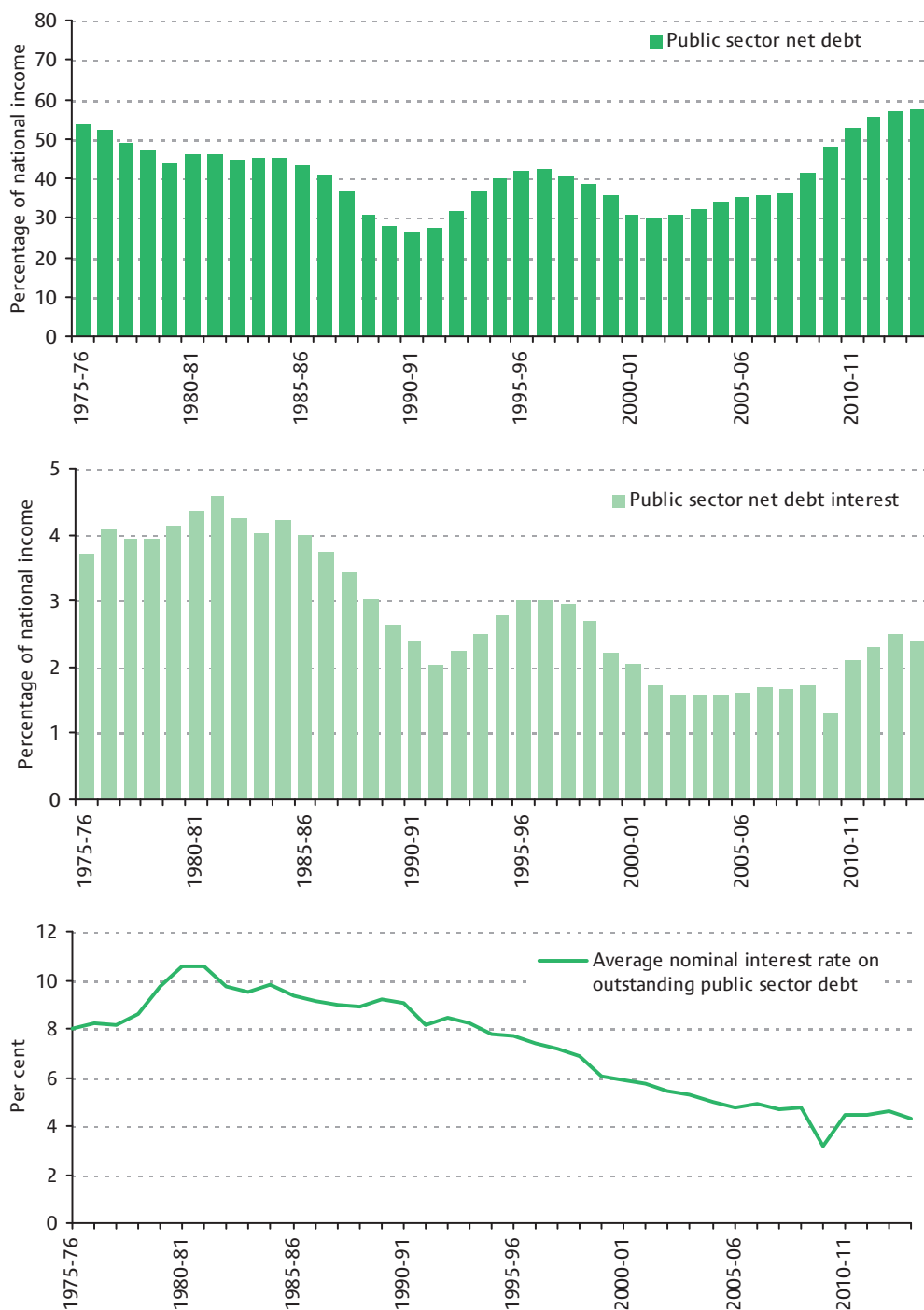
The projected rise in the stock of debt over the next five years certainly makes for a dramatic headline. But what matters more to individuals and families is what resources we are going to have to use each year to service and pay off this debt. This depends not only on the stock of debt, but also on how much it costs the government to borrow.

Figure 3.2 shows public sector net debt and public sector net debt interest payments as shares of national income, along with the implicit average interest rate paid on public sector net debt for the period from 1975–76. Since 2001–02, public sector net debt interest has consumed around 1.7% of national income, the lowest share since the Second

² <http://www.independent.co.uk/opinion/commentators/george-osborne-labours-folly-has-finally-been-laid-bare-1062876.html>.

World War. Although public sector net debt was rising over this period, the cost was held in check by a fall in the average interest rate the government was paying on it.

Figure 3.2. Public sector net debt, interest payments and average interest rates



Sources: Public sector net debt interest is gross interest paid less gross interest received. Measures of gross interest are ONS series ANLO and ANBQ, from table 2.3C of *Financial Statistics Freestanding Time Series Data*. Projections are from HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm). The average effective interest rate is calculated as cash net debt interest paid as a percentage of the cash value of the stock of net debt in the previous financial year. Figure 7.2 shows the average real interest rate, as measured by the consol rate less long-term expected inflation.

Since 2004, the government has in effect paid a nominal interest rate of between 4% and 5% on the public sector's net debt, compared with between 6% and 8% over most of the 1990s and between 8% and 11% over most of the 1980s. It has been relatively cheap for all industrial country governments to borrow in recent years, a trend currently maintained by investors' desire to hold what they see as relatively safe investments (see Chapter 7).

For the time being, the government seems confident that it can continue to service its debt relatively cheaply – its forecasts imply that the average interest rate will remain below 5% through to 2013–14. As a result, although the Treasury expects public sector net debt to rise well above the peak it reached in the mid-1990s (57.4% of national income in 2013–14 versus 42.5% of national income in 1996–97), it expects the peak in public sector net debt interest payments to be significantly lower than the level that Labour inherited from the Conservatives when they came into office in May 1997 (2.5% of national income in 2012–13 versus 3.0% of national income in 1996–97).

The increase in indebtedness resulting from the crisis and the fiscal stimulus has pushed expected public sector net debt interest payments higher since the Budget. At Budget time, they were expected to remain unchanged at 1.7% of national income between 2007–08 and 2012–13, compared with a forecast increase in the PBR from 1.7% of national income to 2.5% of national income. This increase in debt interest payments will absorb 0.8% of national income of the 1.3% of national income increase in total public spending expected over the period (see Chapter 9 for a discussion of the likely implications for Spending Review 2010).

Debt and debt interest beyond the PBR forecasting horizon

Mr Steinbrück and Mr Osborne may have overstated the long-term fiscal significance of the fiscal stimulus package, but what about their assertion that public sector net debt overall is set to rise to levels that will take a generation to pay off?

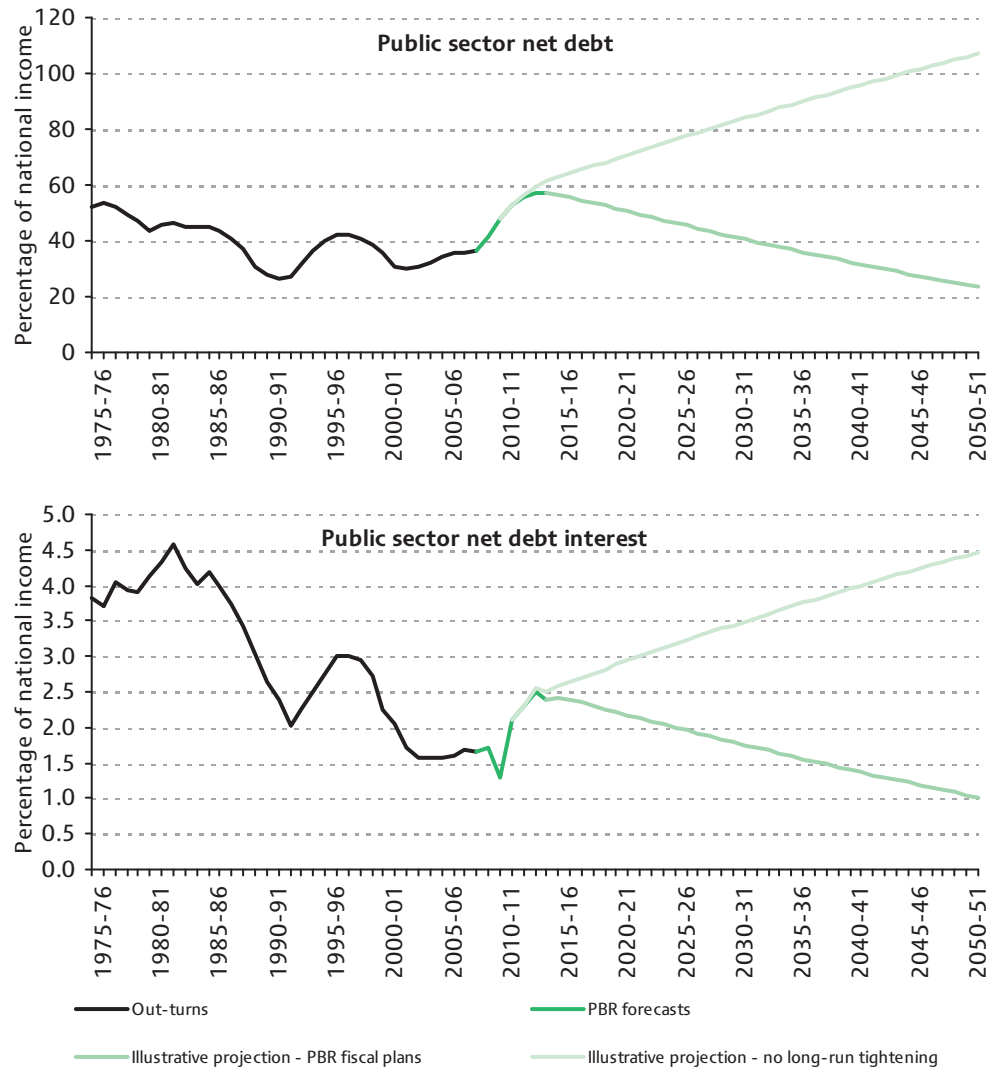
In this section, we make some illustrative projections of how debt and debt interest may evolve beyond the end of the Treasury's five-year forecasting horizon.

As we noted earlier, if the Treasury had not announced a tightening in the PBR, the cost of the crunch would have put the UK's public finances onto an unsustainable path. Whether a fiscal position is unsustainable depends on the existing stock of debt as a share of national income, the extent to which the interest rate on the debt exceeds the nominal growth rate of the economy and the size of the primary deficit, namely public sector borrowing minus debt interest payments.³ A given level of debt and debt servicing cost will only be sustainable if the primary surplus and/or nominal growth in national income are sufficiently large. Roughly speaking, the Treasury assumes that borrowing costs are around 4¼%, as we saw in Figure 3.2, and that the trend growth rate of nominal national income is around 5¼% of national income. Given these assumptions, the peak level of debt forecast by the Treasury in Budget 2008 (39.8% of national income in 2010–11) would only have been sustainable if the primary deficit were no larger than 0.4% of national income. In the Budget, the Treasury projected that it would be running a primary surplus of 0.4% of national income at the end of its then forecasting horizon, which would

³ Given that the debt ratio in period $t+1$ is defined as: $d(t+1) = d(t)[(1+r)/(1+g)] - PS$, the primary surplus (PS) consistent with a stable debt ratio is equal to $[(r-g)/(1+g)]d(t)$, where r is the nominal interest rate on debt and g is the nominal growth rate of national income.

have seen debt fall steadily as a share of national income. Adding a 3.5% of national income increase to structural borrowing, with a rise in the peak debt forecast to 57.4% of national income, would have pushed the fiscal position to the wrong side of the safety line. Roughly speaking, this debt level would require a primary deficit of no more than about 0.5% of national income to ensure sustainability – hence, the fiscal tightening of 2.6% of national income would be sufficient to pull it back to the right side again.

Figure 3.3. Debt and debt interest payments: the impact of the tightening



Notes: Authors' calculations based on HM Treasury assumptions about fiscal tightening in 2014–15 and 2015–16 from Pre-Budget Report 2008. The illustrative profile assumes that non-debt-interest spending and revenues remain constant as a share of national income from 2015–16 onwards. Average debt servicing costs are assumed to remain at 4.32% from 2013–14 onward, which implies that debt interest payments decline as a share of national income as the level of debt falls. This implies a strengthening of the current budget over time.

Sources: Historic data from HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls). Forecasts for 2008–09 to 2013–14 from HM Treasury, *2008 Pre-Budget Report: The Economy and Public Finances – Supplementary Material*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_chartstables_501.pdf). Projections from 2014–15 onwards are authors' calculations.

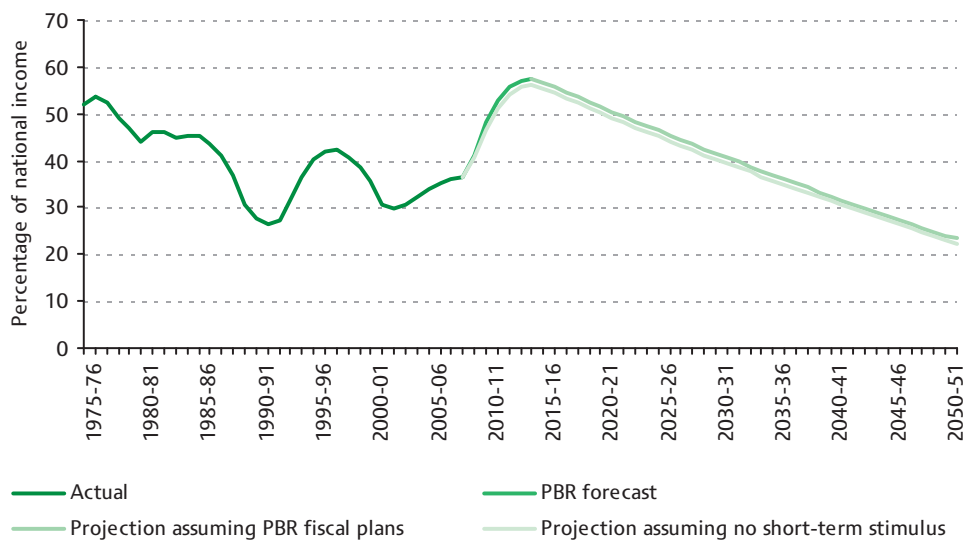
This is illustrated in Figure 3.3, in which we assume that non-debt current spending, investment spending and tax revenues all remain constant as shares of national income beyond the end of the Treasury forecasting horizon and that the government continues to be able to borrow at a rate of 4.32% (the average debt interest rate it forecast for 2013–14 in the PBR). Without any tightening, the ratio of debt to national income would rise substantially, passing through 100% of national income in 2044–45. Net debt interest payments would rise in parallel, surpassing the peak of the early 1980s in the 2050s, and likely much before this as the additional debt would put considerable upwards pressure on the effective interest rate faced by the government.

If we assume that the government implements the fiscal tightening of 2.6% of national income by 2015–16 that it projected in the PBR – and then sustains it thereafter – debt will come down, but it will not fall back below the ceiling of 40% of national income set out in the temporarily suspended ‘sustainable investment rule’ until 2031–32 (at which point the government might choose to unwind the policy tightening). Under this scenario, net debt interest payments would remain modest – falling gradually from their peak of 2.5% of national income and moving below the recent trough of 1.6% of national income in 2035–36.

In other words, it may well be (as Mr Steinbrück said) nearly a generation before debt returns to its pre-crisis level – although the cost of servicing it will not be particularly high. The PBR asserted that the government’s ‘fiscal policy objectives remain unchanged’ and that it would merely ‘depart temporarily from the fiscal rules until the global shocks have worked their way through the economy in full’. The fact that net debt is not on course to return below 40% of national income for more than 20 years suggests that the government will not be in a position to restore its original rules for quite some time.

Figure 3.4 confirms how little difference the decision to implement the fiscal stimulus package makes to the long-term outlook for the public finances. Without the stimulus package, debt would fall back below 40% of national income only one year earlier.

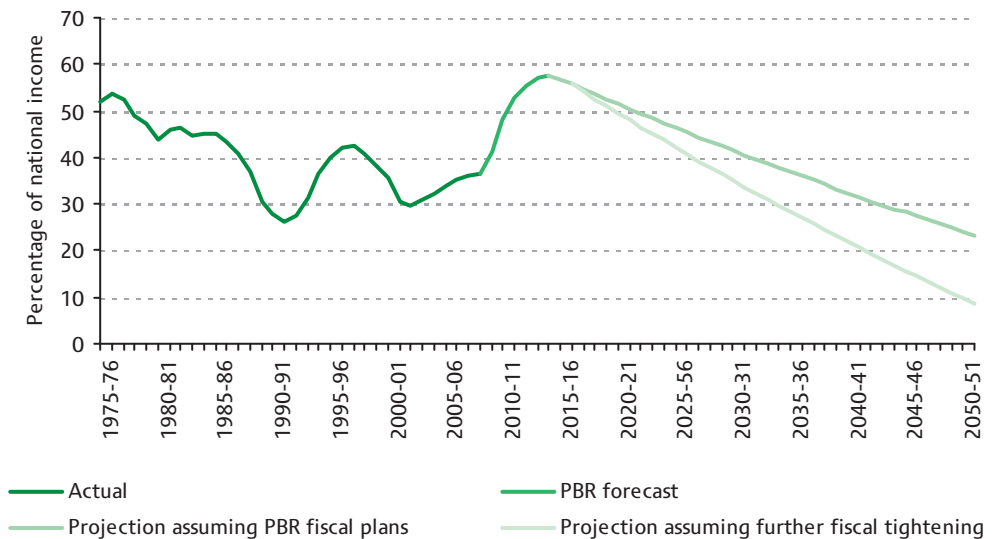
Figure 3.4. Net debt: with and without fiscal stimulus package



Notes: Figures for fiscal loosening are as shown in Figure 3.1. Also see Notes to Figure 3.3.
Sources: As Figure 3.3.

Conversely, the Chancellor – or his successor – could choose to do more to reduce the level of public sector borrowing more quickly. For example, increasing the tightening by a further 0.5% of national income (e.g. continuing the tightening currently pencilled in for 2014–15 and 2015–16 into 2016–17) would see net debt fall back below 40% of national income about five years earlier, as shown in Figure 3.5. The case for tightening more quickly clearly becomes stronger if one believes that borrowing costs may rise.

Figure 3.5. Net debt: with and without additional fiscal tightening



Notes: See Notes to Figure 3.3. The illustrative profile with additional fiscal tightening assumes that there is a further 0.5% of national income fiscal tightening in 2016–17 and that thereafter non-debt-interest spending and revenues remain constant as a share of national income.

Sources: As Figure 3.3.

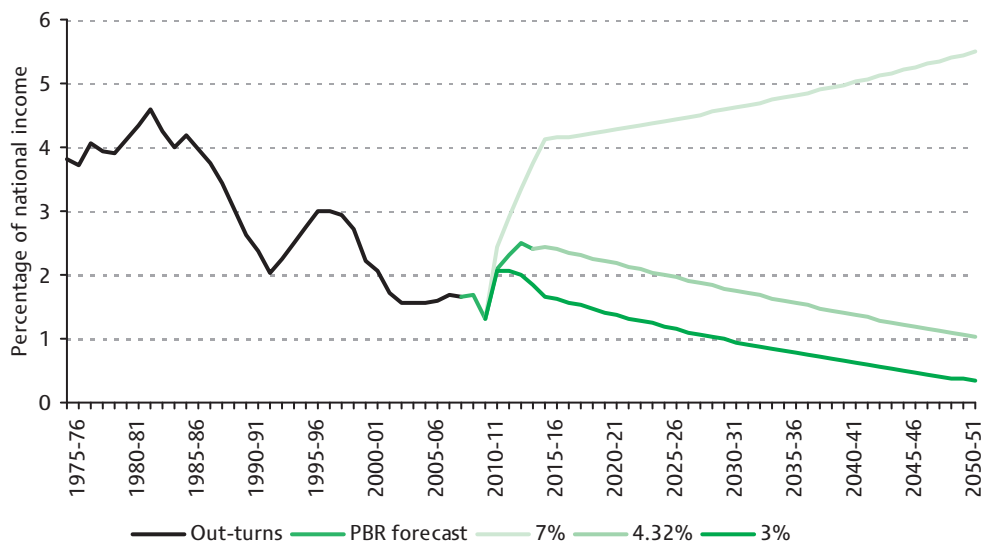
Chapter 7 argues that borrowing costs are likely to remain low for the time being, but that there is a risk that gilt yields increase if investors take fright at the deteriorating state of the public finances. If borrowing costs were to change in the future, what might this imply for the potential future burden of public sector interest payments? And at what level of borrowing costs does the burden of debt interest become unsustainable – in other words, what level of borrowing costs would imply that each year an ever-increasing share of national income would need to be devoted to servicing debt?

Along with the baseline assumption of borrowing costs remaining at 4.32%, Figure 3.6 also shows the burden of public sector net debt interest payments under two alternative assumptions for average debt servicing costs: that they return to the levels of the 1990s (7%) and that they fall further to 3%.

If borrowing costs were to fall below their current levels to an average of 3%, the burden of debt servicing would, of course, decline even more quickly – dropping below 1% of national income in 2029–30. This assumes that the money saved from lower debt interest payments would be retained by the Treasury and used to reduce borrowing further each year, rather than used to cut taxes or increase non-debt-interest spending.

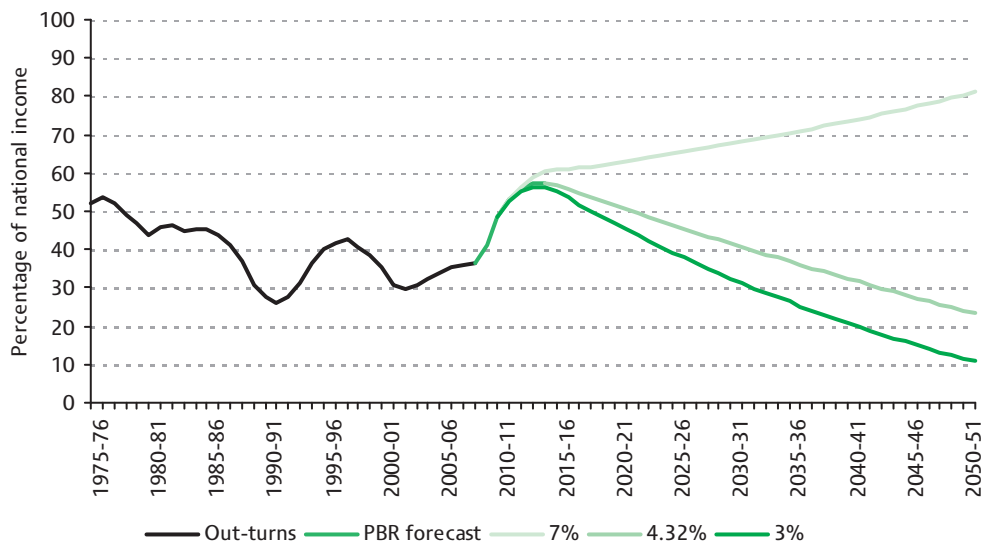
If, instead, borrowing costs were to rise, the burden of debt servicing would also rise. An average debt interest rate of 7% (about what the UK government experienced in the mid-1990s) would be sufficient to produce an ever-increasing path for debt and debt interest

Figure 3.6. Illustrative future debt interest payments – what difference would a change in average borrowing costs make?



Notes: See Notes to Figure 3.3. Forecasts for debt interest as a percentage of national income assume that the average interest payment on the stock of debt rises/falls from 4.32% to the new assumed level over a period of five years after 2013–14.
Sources: As Figure 3.3.

Figure 3.7. Illustrative future debt levels – what difference would a change in average borrowing costs make?



Notes: As Figure 3.6.
Sources: As Figure 3.3.

(as shown in Figures 3.7 and 3.6 respectively). Nominal growth in national income and the underlying primary surplus would not be sufficient to ensure the burden of debt servicing falls over the longer term. However, it is worth bearing in mind that the last time average nominal borrowing costs were this high, inflationary expectations were also higher. If interest rates were to rise in response to higher expected inflation, it is also

likely that nominal growth in national income would be higher, which would mitigate the effect. However, if real interest rates were to rise, then there would be no offsetting effect of stronger nominal growth in national income. Under the assumption made here – of an increase in borrowing costs but no change in nominal growth in the economy – an average borrowing cost of about 6.3% would be sufficient to lead to an ever-increasing path for debt. If borrowing costs of this level were to emerge, future governments would have to do more to reduce the debt burden in order to prevent this.

What is clear from Figure 3.6 is that the size of the debt interest burden imposed on future taxpayers by the current economic slowdown (and policy announcements made in PBR 2008) is extremely sensitive to what future borrowing costs turn out to be. If future borrowing costs are expected to remain at their current low levels, the burden on future taxpayers of additional borrowing in the short term is small. Conversely, if future borrowing costs are expected to be high – for example, if they returned to the levels seen in the mid-1990s – then future taxpayers would have to devote considerably more of their incomes to servicing the stock of debt that they inherit and further fiscal tightening may be required.

3.3 Policy measures in the Pre-Budget Report

As we have discussed, in the PBR the government announced a combination of net tax increases and cuts in projected public spending, to help reduce public sector net borrowing from 2010–11 onwards and thereby reduce the future burden of interest payments on the increase in debt that will result from the crisis and (to a much lesser extent) the fiscal stimulus. Having examined the scale of the fiscal tightening, how does its composition affect its likely impact on people’s finances and the public services that they consume?

Although much political attention has focused on the increases in income tax rates for people on high incomes and in National Insurance contributions (which are discussed in more detail in Chapter 11), it is striking that the squeeze on spending is quantitatively much more significant (Table 3.2).

Table 3.2. Impact of PBR measures on public sector net borrowing

<i>£ billion</i>	2008–09	2009–10	2010–11	2011–12	2012–13
Net tax cut	6.6	12.4	3.3	-2.9	-4.0
<i>Of which</i>					
Tax giveaway	+6.9	+13.6	+5.5	+6.2	+6.6
Tax takeaway	-0.3	-1.2	-2.2	-9.1	-10.6
Net spending increase	2.7	3.9	-8.1	-11.2	-18.6
<i>Of which</i>					
Spending increases	+2.7	+4.1	+0.7	+0.3	+0.3
Spending cuts	0	-0.2	-8.8	-11.5	-18.9
Addition to borrowing	9.3	16.3	-4.8	-14.1	-22.6

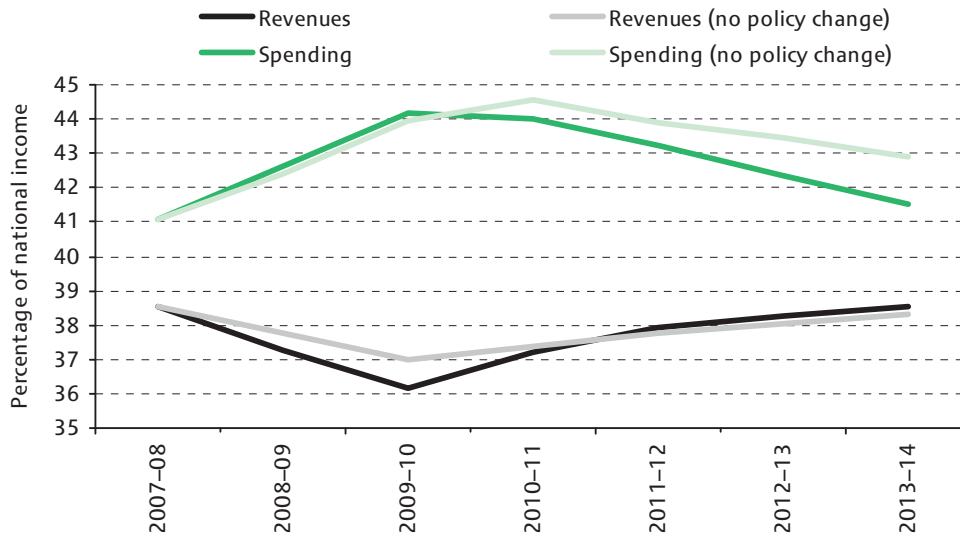
Note: Figures may not add due to rounding.

Sources: HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); authors’ calculations.

By 2012–13, the policy measures announced in the PBR are designed to reduce public sector net borrowing by £22.6 billion or 1.3% of national income. Of this tightening, less than 20% takes the form of net tax increases and more than 80% net spending cuts.

As Figure 3.8 shows, this asymmetry in the burden of adjustment helps ensure that both total spending and total revenues return to broadly their pre-crisis levels as shares of national income by the end of the PBR forecasting horizon in 2013–14. If the burden of tightening had been shared equally between spending and tax measures, there would have been a shift towards higher levels of spending and taxation over the period.

Figure 3.8. Impact of PBR measures on levels of spending and revenues



Sources: As Figure 3.1.

The net increase in tax of £4 billion a year in the medium term is also small in the context of the net tax increases announced in the two Budgets of 1993, which aimed to strengthen the public finances from an otherwise unsustainable position in the wake of the recession of the early 1990s. In total, these two Budgets implemented a net tax rise of 2.1% of national income by 1996–97, or £31 billion in today’s terms.

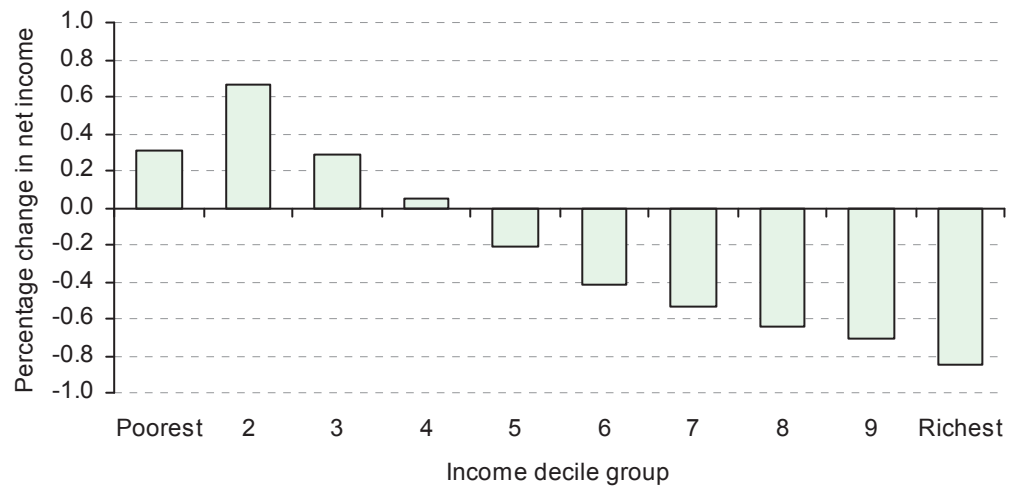
Tax measures and the tightening

Although the net tax increase announced in the PBR was pretty modest, it is worth noting that this comprises a relatively large gross tax increase offset by a smaller gross tax cut (as we saw in Table 3.2). In 2011–12, the gross tax increase totals £10.6 billion, including the increases in rates of National Insurance (£5.4 billion) and income tax (£2.1 billion). The gross tax cuts (since the Budget) total £6.6 billion, including the increase in the personal income tax allowance (£3.3 billion), the increase in the point at which employees pay National Insurance (£1.6 billion) and the watering-down of the government’s proposed vehicle excise duty reforms (£0.5 billion).

Taken together with increases in benefits and tax credits announced in the PBR, these measures are, on average, progressive – leaving the bottom four-tenths of the income distribution better off and the top six-tenths worse off, on average. This is illustrated in Figure 3.9, which excludes the impact of the income tax increases. The new 45% income tax rate and the two new 60% income tax rates for those with very high taxable incomes

are omitted, as – although they impose further losses on the top decile of the income distribution – they are confined to only the richest 2% of the population.⁴

Figure 3.9. Impact of tax and benefit measures announced for 2011–12



Notes: Income decile groups are derived by dividing all households into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale. Decile group 1 contains the poorest tenth of the population, decile group 2 the second poorest, and so on up to decile group 10, which contains the richest tenth.

Source: M. Brewer, J. Browne and D. Phillips, *The Distributional Effect of the 2008 Pre-Budget Report*, 2008 (<http://www.ifs.org.uk/bns/bn80.pdf>).

The spending squeeze and public services

In the PBR, the government made announcements that affect the level and composition of expected spending in 2010–11, and its projected growth rate thereafter. It is important to take all these into account in assessing the likely impact of the squeeze.

The Conservatives do not seem to believe that there is much of a squeeze on public spending in 2010–11 – and they would like to see a bigger one. David Cameron said on 9 December:

In the Pre Budget Report, the Chancellor revised down his spending plans, but only from 2011 onwards, for 2010 all he is promising is £5bn of unspecified ‘efficiencies’ ... So I can announce today that in order to keep spending at a responsible level and to ensure the quickest possible end to the recession and the strongest possible recovery, we will not match Labour’s new spending plans for 2010 and beyond.⁵

But the potential squeeze on public services in 2010–11 from the plans in the PBR may be greater than either the government or the Conservatives suggest.

Overall, the government has revised up its estimate of total public spending in 2010–11 by £2 billion since the Budget. But this masks a £6.1 billion increase in expected debt

⁴ This group tends not to be captured well by the household survey data used for calculating Figure 3.9 and so reliably modelling the effect of the income tax change for this group is difficult. For more discussion, see Chapter 11.

⁵ http://www.conservatives.com/News/Speeches/2008/12/David_Cameron_Fiscal_responsibility_and_the_recession.aspx.

interest payments, a £4.2 billion increase in expected social security and tax credit payments, plus a £2.4 billion increase in other categories of annually managed expenditure (AME). Meanwhile, departmental expenditure limits (DELs) – which include most spending by central government on public services – have been revised down.

Of this cut, the government believes that £5 billion can be achieved painlessly through efficiency savings. But we should be cautious of such promises. When the government claimed to have made £13.3 billion of efficiency savings by September 2006 under the Gershon Review, the National Audit Office concluded in February 2007 that of these claimed savings, only around a quarter ‘fairly represent efficiencies made’. Roughly half ‘represent efficiency but carry some measurement issues and uncertainties’ and the remaining quarter ‘may represent efficiency, but the measures used either do not yet demonstrate it or the reported gains may be substantially incorrect’.⁶ The NAO has not indicated any greater confidence in government claims of efficiency savings since.

Even if the government can find and deliver efficiency savings, it is not clear that we should treat these as a way to make spending cuts ‘painless’. The government should be aiming to run the public services as efficiently as possible at all times, so presumably it would have wished to implement efficiency savings even if there were no need to make cuts – thereby increasing the quantity and quality of public services delivered for a given amount of spending. Efficiency savings improve the quality of services for a given level of public spending. Spending cuts mean that the quantity and quality of public services will be lower than they would have been in the absence of the cuts (and this is true whether or not efficiency savings are being made at the same time).

Some of the cuts in DELs in 2010–11 reflect forecasting changes and reallocations of spending from 2010–11 into the two preceding years – for example, £2.9 billion of capital spending that the government expected at Budget time to undertake in 2010–11, is now intended to be brought forward to 2008–09 and 2009–10. So it seems reasonable not to count this as a squeeze. However, there are some changes to the DEL spending projections for 2010–11 that look less like reallocations or genuine forecasting changes and more like straightforward cuts to spending plans (the revisions to spending plans are discussed in more detail in Chapter 9). In particular, there is a £1.4 billion cut to NHS capital spending in England, only £0.1 billion of which is brought forward into earlier years. (This is characterised as a forecasting change in the PBR, but is actually a policy change.)

So, overall, the PBR probably represents a real cut in spending on public services in 2010–11 of around £6.3 billion or 0.9% compared with the level set out at Budget time. This includes the £5 billion supposedly paid for by efficiency savings, as any efficiency savings should have been made whether or not there were any cuts.

The PBR pencilled in growth in total public spending of 1.1% a year in real terms over the three years 2011–12, 2012–13 and 2013–14. Chapter 9 argues that the outlook for debt interest and social security payments over this period makes it plausible that all this increase will have to be devoted to AME. This would leave DELs frozen in real terms, even without any additional funds being devoted to helping the government meet its child poverty target, or its aspiration to earnings-index the basic state pension from April 2012.

⁶ National Audit Office, *The Efficiency Programme: A Second Review of Progress*, February 2007 (http://www.nao.org.uk/publications/0607/the_efficiency_programme_a_se.aspx).

At Budget time, the Treasury was pencilling in growth in total spending of 1.8% of national income. If non-departmental spending, such as social benefit payments and debt interest, evolved as it is now expected to but total spending had grown at 1.8% (as forecast in the Budget), real DEL spending growth over the three years of Spending Review 2010 would be forecast to be about 1.3%, rather than the real freeze implied by the PBR figures. The real cut in departmental spending on public services implied by the announcements in the PBR, therefore, would rise from around £6.3 billion in 2010–11 to £11 billion in 2011–12, £17 billion in 2012–13 and £22 billion in 2013–14. In percentage terms, the cut compared with the levels implied by the Budget would rise from 0.9% in 2010–11 to 3.0% in 2013–14.

Chapter 9 examines the impact that zero real growth in DELs over Spending Review 2010 might have on the rates of growth enjoyed by individual Whitehall departments. It should be borne in mind that many public services are of greater absolute and relative value to poorer households than to richer ones (for example, social housing, health, compulsory education and social services).⁷ So, depending on how the government chooses to allocate the spending cuts, the regressive impact of the cuts in these ‘benefits in kind’ could outweigh the progressive impact of the tax and benefit changes described in the previous subsection.

3.4 Conclusions

Leaving aside any long-term cost from the government’s extensive intervention in the financial sector, the credit crunch has imposed a significant permanent cost on the exchequer – perhaps 3.5% of national income or a little over £50 billion a year in 2008–09 terms. On its own, this would have been enough to put the UK’s public finances on an unsustainable path. By announcing a fiscal tightening that will amount to 2.6% of national income (or around £38 billion a year in 2008–09 terms) by 2015–16, the government has avoided this being the most likely outcome. But this means that public sector net debt is likely to remain above the government’s old target ceiling for two decades.

The year-by-year cost of this generation-long increase in government debt will be relatively modest as long as the government’s borrowing costs remain at their current, historically low, levels. But if investors lose confidence in the government’s willingness and ability to implement the tough decisions necessary to get the public finances back into shape, and borrowing costs rise, the fiscal arithmetic will become increasingly unattractive. At best, the government will have to sustain its fiscal tightening for longer – and devote more tax revenue to servicing debt – before getting debt back below its old target ceiling. At worst, the government will be forced into a tougher fiscal squeeze just to prevent debt and debt interest rates exploding. Making this outcome less likely should be at the forefront of the government’s mind as it contemplates the Budget package.

⁷ See F. Jones, ‘The effects of taxes and benefits on household income, 2006/07’, *Economic and Labour Market Review*, 2(7), July 2008 (http://www.statistics.gov.uk/elmr/07_08/downloads/ELMR_Jul08_Jones.pdf).

4. The economic outlook

David Miles, with Melanie Baker (Morgan Stanley)

Summary

- The UK economy is already in recession and the near-term outlook is worse than it has been for many years. But our central forecast is that the UK will avoid a deep and prolonged recession, thanks to enormous monetary and substantial fiscal stimuli already announced. However, we expect a decidedly slow recovery.
- Our central forecast is similar to the Treasury's in the near term, but has weaker growth than the Treasury expects in 2012–13 and 2013–14. We agree with its assessment that the credit crunch will reduce the productive potential of the economy by about 4%, albeit more slowly than the Treasury expects.
- Weak consumer spending and investment will be the main drivers of the recession and continued below-trend growth. With credit conditions likely to remain tight, and given high indebtedness, consumers in aggregate will increase their saving rates and companies will cut investment.
- The risks to this outlook remain skewed to the downside. A sharp change in household behaviour could drive the saving rate much higher and consumer spending sharply lower. But there are upside risks too. In particular, there may be positive supply-side responses to the shocks, which would reduce the loss of productive potential and allow the economy to sustain a stronger recovery.

4.1 Introduction

The near-term outlook for the UK economy has worsened sharply over the past year. The fallout from the 'credit crunch' and financial market turmoil that has affected the UK since August 2007 continues. But even before the credit crunch, underlying factors had already made weaker consumer spending and a rebalancing of the economy towards higher saving both desirable and likely. The effects of the credit crunch in weakening banks and reducing their willingness and ability to lend are making this adjustment more abrupt than we had anticipated – so much so that policymakers are now trying to slow it.

Along with the Treasury and the Bank of England, we expect the economy to contract in 2009 and growth to resume by 2010. Medium-term fundamentals look less sound than for several years, with the economy unlikely to sustain the growth in productive potential of close to 2½% per year that we have seen in recent years.

Section 4.2 discusses recent developments and the short-term outlook for the economy. We focus particularly on the outlook for consumer spending and investment and for business investment, and on the response of monetary policy. Section 4.3 assesses the longer-term trend growth rate of the economy and analyses what this implies about the shape of the current economic cycle. Section 4.4 concludes by bringing together our assessment of the short-term outlook and medium-term potential and presents a central scenario, a more pessimistic scenario and a more optimistic scenario for the economy

over the next five years. We discuss the outlook for the public finances and debt issuance under these scenarios in Chapters 6 and 7, respectively.

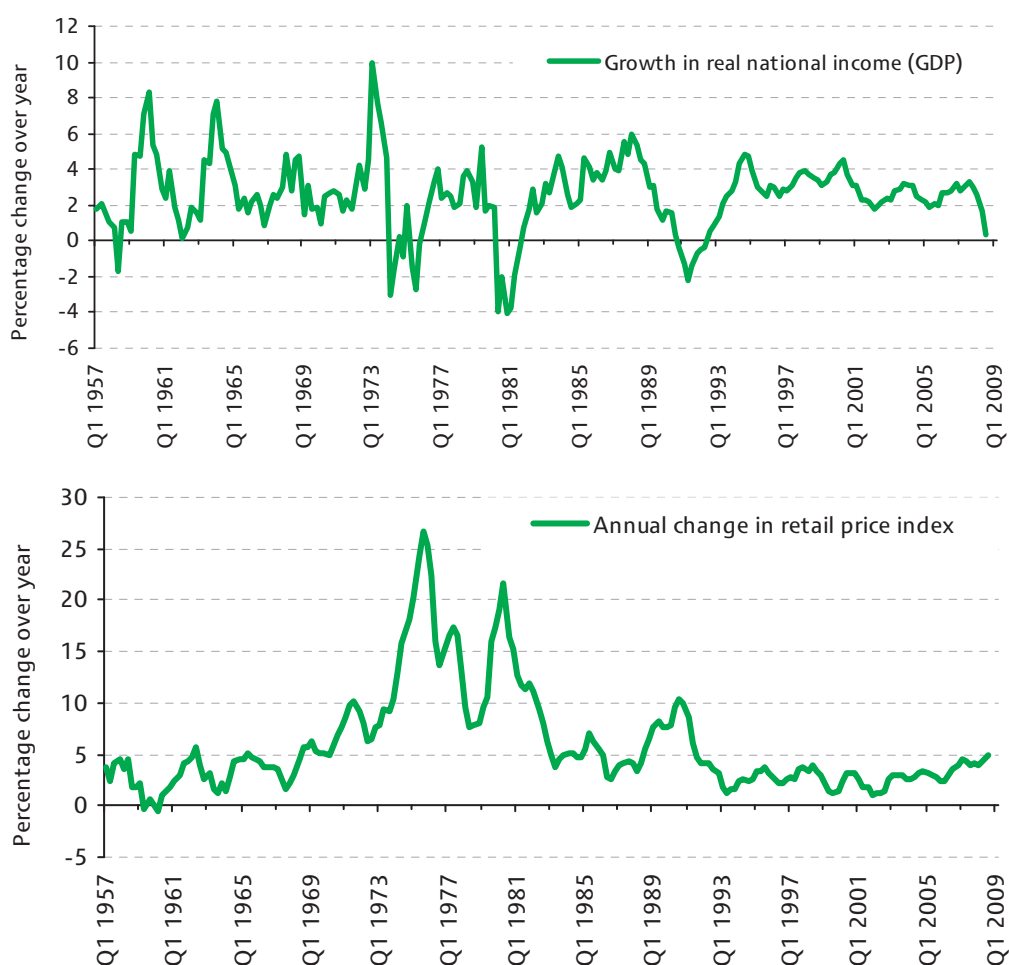
4.2 Recent developments and near-term outlook

Introduction

Volatility in the level of economic activity and in inflation has been exceptionally low over most of the past 15 years (Figure 4.1). This partly sowed the seeds for the current, more volatile period. Less fear of sharp gyrations in the economy probably contributed to the rapid rise in household and corporate debt and to the government's willingness to run budget deficits on a scale not normally associated with periods of extended economic growth.

As a result, the UK economy has shown itself to be vulnerable to the prolonged period of tighter credit that has ensued. Crucial to any assessment of vulnerability is an assessment of: household and corporate balance sheets; the availability and cost of credit and the reliance on borrowing of

Figure 4.1. Economic growth and inflation since 1957



Source: ONS.

corporates and households; and the extraordinary policy measures enacted and the policy options remaining. We assess these in this section.

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For the last year or so, economic growth in the UK has been weakening – quarter-on-quarter output growth turned negative in the third quarter of 2008 for the first time in more than 15 years. Credit conditions have tightened markedly and global growth has slowed sharply. In nominal terms, we appear to be on track for at least as severe a contraction in UK house prices as we saw in the early 1990s housing ‘bust’, and the FTSE 100 is down some 27% since the summer of 2007. Both will have significantly reduced the aggregate wealth of UK households.

High inflation through much of 2008 constrained the real incomes of households and compressed profit margins for many companies, even before they were hit by tighter credit conditions and slowing demand. Many companies appear to be having difficulty accessing credit and are conserving working capital, leading to lower investment and lower employment. In aggregate, UK households continue to spend almost all their disposable income, and the household saving rate dipped into negative territory for the first time since the late 1950s in Q1 2008.

Our central forecast for calendar year 2009 GDP growth is for the first outright whole-year contraction since 1991 (-1.3% after a likely +0.7% in 2008). But this masks the size of the slowdown: in Q1 2009, we expect year-on-year GDP growth to be around -2.5%. Our central forecast of -1.3% growth in 2009 is broadly in line with the bottom end of the Treasury’s range of -1¼% to -¾% (where the lower end of the range is used in the Treasury’s fiscal projections).

We continue to see the balance of risks to our central forecast as skewed to the downside:

- The prolonged tightening in credit conditions seems unlikely to disappear suddenly in 2009, and we expect 2009 to be characterised by continued tight bank lending criteria and sluggish lending growth.
- Further falls in house prices and housing transactions are plausible and employment is likely to fall in 2009. Derivative contracts written on the national house price index (HBOS measure) are consistent with around a 30% *further* fall in nominal house prices over 2009 and 2010.
- There remains a risk of ‘negative feedback loops’ developing and worsening in the UK economy. Asset price falls (including housing), the slowing economy and rising unemployment could make banks even less willing to lend, and households and companies less willing to spend, all worsening the outlook for the real economy, encouraging further asset price falls and leading to further increases in unemployment.
- While the household saving rate fell to remarkably low levels in early 2008, there is a real risk that, given tighter credit conditions and a high level of indebtedness, UK households in aggregate will increase their savings rapidly. With few prospects of rapid income growth, a sharp contraction in consumer spending would then be likely.
- Much of the economic boost from the fiscal stimulus could be negated by a sharp rise in government bond yields should demand for issuance fall below the large amount of incoming supply. See Chapter 7 for more analysis of this possibility.

Yet despite these risks, we remain cautiously optimistic that the UK can avoid a deep and prolonged recession. This is largely due to three factors:

- Massive monetary and fiscal policy stimuli that are likely to cushion household demand and generate a gradual period of balance sheet and savings adjustment rather than a short, sharp one.
- A determination by the UK authorities to get credit markets functioning and revive the flow of lending.
- The large depreciation in sterling over recent months combined with coming disinflation that together are likely to boost net exports without implying a sharp contraction in consumer spending.

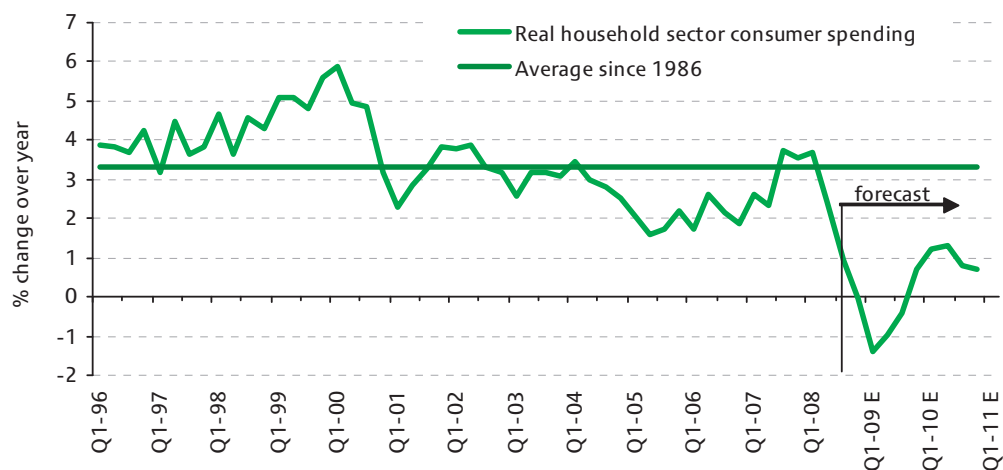
For the first time in many years, the Treasury's own forecast used in its public finance projections is not more optimistic than our own central forecast (i.e. what we judge to be the most likely single scenario) for the coming fiscal year. The Treasury also expects to see an eventual recovery as the lagged effects of monetary and fiscal stimuli, lower commodity prices and a weaker sterling feed through. It expects an easing of credit conditions in 2009.

The big unknown for our own (and the Treasury's) forecasts is how long and to what extent exceptionally tight conditions in credit markets are likely to persist. In particular, if the UK economy is not to fall into a very serious recession in 2009, lending growth needs to stabilise at least. In aggregate, firms need to be assured that access to credit will not be severely constrained. With constrained access to credit, hoarding working capital becomes a primary focus (leading to cutbacks in investment and employment).

Household consumer spending and investment

We expect consumer spending to contract in the near term (Figure 4.2). Our central forecast is for a 0.5% contraction in real consumer spending in 2009 after likely growth of around 1.7% in 2008. We expect consumer spending growth to remain below par in 2010 at just 1.0%: debt levels and debt service costs are already high, although there are signs of some improvement in the latter. Many households will find their finances under increased strain as unemployment rises, and labour market conditions will continue to deteriorate through most of 2009. Falls in house prices and share prices have hit household wealth and, alongside growing job insecurity, this may encourage increased saving. With nominal disposable income likely to grow little more than 1% over the next year, this should translate into slow nominal consumer spending growth. However, we anticipate a gradual rather than sharp rise in saving.

Figure 4.2. Real consumer spending growth



Sources: ONS; Morgan Stanley Research. E = Morgan Stanley Research forecasts.

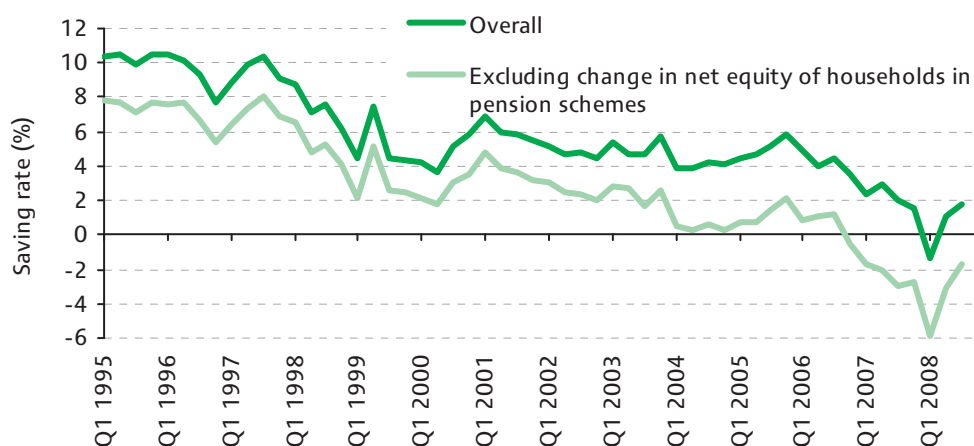
Household saving rate and disposable income

Our central consumer spending forecast assumes that households do not increase their real spending in line with real disposable income, but that a desire to increase savings dampens the increase in spending.

The household saving rate has remained at low levels and it was briefly negative in Q1 2008 (Figure 4.3). We expect that to have marked the bottom:

- Income uncertainty has probably increased sharply as the economy has deteriorated rapidly after a long period of stability; all else equal, this should lower the level of debt that households will be comfortable holding and increase their desired level of precautionary savings.
- Consumption smoothing using credit has become more difficult. It therefore makes sense to pay down debt and increase liquid savings so that existing credit lines and accessible saved funds can provide more of a buffer against any subsequent income fluctuations.
- Falls in equity and house prices have depleted levels of household wealth. Households will want to rebuild their financial assets in order to compensate.

Figure 4.3. Saving rate



Sources: ONS; Morgan Stanley Research.

Our central forecast is that the increase in the saving rate will be relatively gradual and will not imply a very sharp consumer recession.

Growth in disposable income (nominal and real) is an important determining factor of the outlook for savings and consumer spending. Most consumers make some effort to smooth their spending over time such that movements in income do not feed through one-to-one into spending. However, analysis suggests that for about 15% of UK households, current spending equals current income.¹ Post credit crunch, that percentage will presumably have increased.

Our outlook for nominal disposable income is for significantly slower growth in 2009 followed by a recovery in 2010. Our central forecast, in real terms, is for an increase of less than 1% in 2009, and around 2% growth in 2010. Falls in employment in 2009 and sluggish wage growth are likely to be offset somewhat by lower growth in tax payments, lower interest paid and much lower inflation (led by falls in energy and food prices). In 2010, a return to positive employment growth will be offset somewhat by higher taxes and social contributions (though themselves largely reflecting a stronger economy). Higher inflation will also moderate growth in real incomes.

The effect of Bank of England rate cuts on disposable income: Most debt held by UK households is mortgage debt. We estimate that the 3 percentage point (300bp) cut in interest rates by the Bank of England in Q4 2008 alone will have been worth around £15 billion to households with mortgage debt (about 1% of GDP).² This is somewhat offset by the impact on those with variable-rate savings, but we think that the net effect will be positive. Gross debt liabilities are around 40% greater than currency and deposits. Credit constraints are now binding on larger numbers of people with debt or with no liquid

¹ R. Banerjee and N. Batini, *UK Consumers' Habits*, External MPC Unit Discussion Paper 13, Bank of England, May 2003.

² About 50% of mortgages in the UK have a floating rate. This includes about 10% of the total stock of mortgages which pay the lender's standard variable rate mortgages (SVRs). Most of the rest of that 50% are tracker mortgages or discounted variable mortgages of one type or another, where the vast majority of tracker mortgages will link to the Bank of England policy rate (though some tracker and variable-rate mortgages will have collars or floors). The value of outstanding mortgages in the UK is about £1.2 trillion. So, if rates come down by 300bp for 40% of mortgage debt, this will be a boost to disposable income of those with debt (all else equal) of roughly £15 billion.

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savings, and those people are likely to have a higher marginal propensity to consume from income than net savers.

The Bank of England rate cuts have not only improved the disposable income outlook for existing mortgage borrowers on variable-rate mortgages, but also for those on fixed rates. We estimate that the fixed term on around 1.1 million fixed-rate mortgages will expire during 2009 (affecting around 4% of all UK households, assuming that relatively few households have multiple mortgages).³ Bank of England rate cuts mean that for most households there will not be a significant change in the interest payment burden when these fixed-rate terms expire. Two-year swap rates have come down rapidly since the summer, and this has had an impact on fixed rates on new mortgages. However, many of those rolling off two-year fixed-rate deals will now be in negative equity and therefore unable to get another two-year fixed-rate mortgage without injecting equity or alternatively (by default) they will generally roll onto paying standard variable rates (SVRs). But following the Bank of England rate cuts, these SVRs have declined sharply. In November, the average quoted SVR was 6.34% *before* reflecting the 350bp of cuts since October. Many lenders now have SVRs of 5% or less, compared with the average quoted two-year fixed-rate mortgage rate (for a 75% loan-to-value (LTV) ratio mortgage) in November 2006 of 5.2%.

Household balance sheets

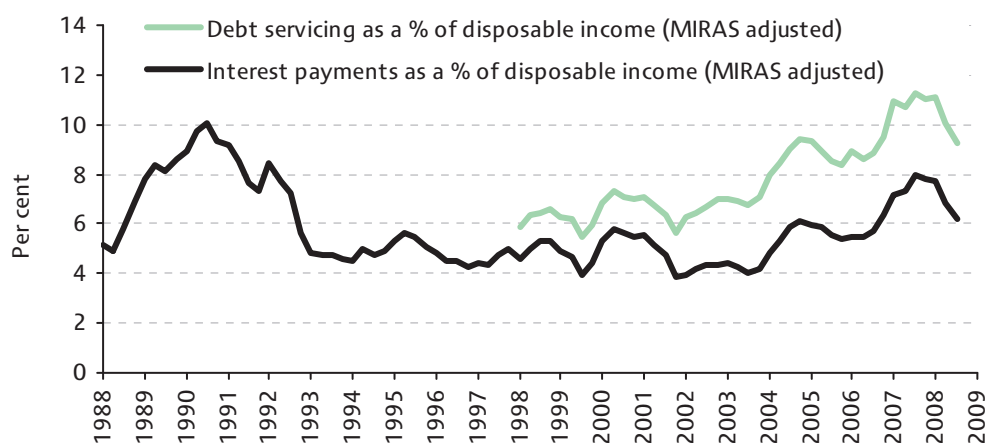
UK households are highly indebted. Total household sector financial liabilities are around £1.6 trillion or around £62,000 per household. Income gearing (the ratio of household sector liabilities to disposable income) is unusually high at around 170%, as is the ratio of household liabilities to GDP relative to the UK's peers.

The more highly geared households are, the more sensitive household expenditure is likely to be to shocks in current and expected interest rates. While that was broadly bad news for growth in 2008, reflecting the ramp-up in secured lending interest rates over 2007, into 2009 this should be a net *positive* for consumers.

Much is often made of the unsustainability of the UK household debt burden. However, one main determinant of sustainability is households' ability to service the debt burden. That appears to be improving. The household aggregate ratio of interest paid to disposable income has now started to fall back, and it is likely to fall further as Bank of England rate cuts feed through (Figure 4.4). The debt-servicing ratio (including principal payments on secured debt) is at more worrying levels and, while improving, continues to leave households looking vulnerable to income shocks.

³ In 2007, 1.5 million fixed-rate mortgages were taken out in the UK. The vast majority have fixed-rate terms of between two and five years (longer-term fixed-rate mortgages remain unusual in the UK) and a lot of these will have been two-year fixed-rate mortgages. We assume that 75% were two-year fixed-rate mortgages.

Figure 4.4. Debt affordability

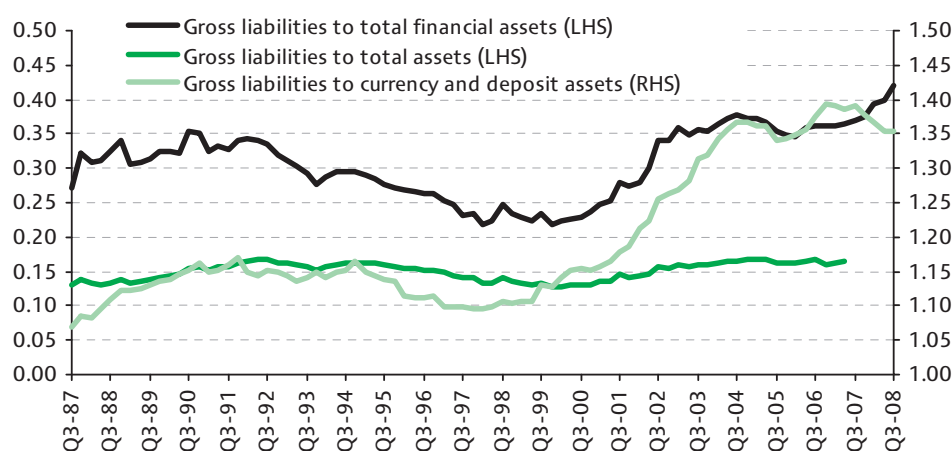


Notes: Debt servicing is interest payments by households and regular payment of mortgage principal. MIRAS is mortgage interest tax relief (phased out during the 1990s).

Sources: Bank of England; ONS; Inland Revenue; Morgan Stanley Research.

But while interest rates on a large proportion of the stock of debt are falling, credit conditions have tightened more broadly. Households with high loan-to-value ratios on their mortgages face greater difficulties remortgaging. While the interest rate paid on their stock of debt has, or will, decline for many, the stock of household debt relative to income may have become unsustainably high in the sense that it is above banks' desired levels.

Figure 4.5. Household capital gearing: increased debt and assets



Note: Total assets uses interpolated non-financial assets series.

Source: ONS.

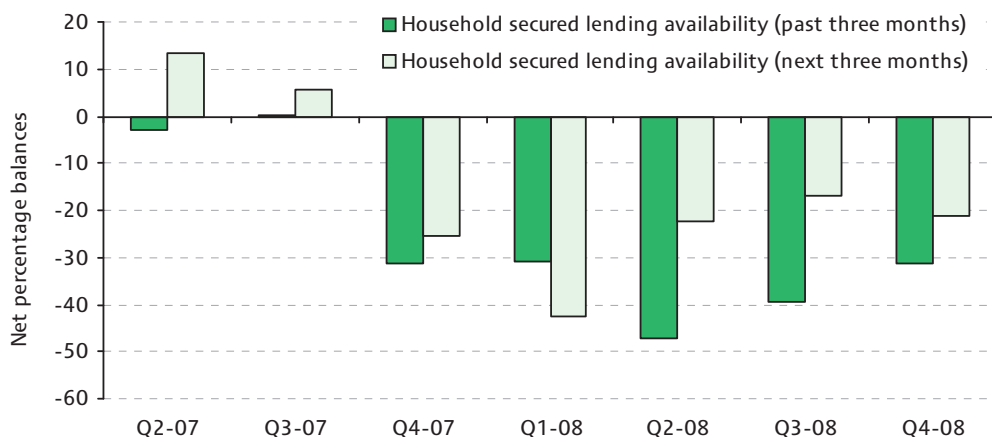
Further, the ratio of household gross financial liabilities to total assets (Figure 4.5) is likely to have worsened markedly with declines in house and stock prices. The level of liabilities to total liquid 'safe' assets (proxied by holdings of currency and deposits) has risen particularly sharply over the last 10 years. In the current economic environment, households in aggregate might consider reducing these ratios imperative.

Household borrowing

While the outlook for existing mortgage borrowers looks brighter following the large Bank of England interest rate cuts, the outlook is far less good for new lending. This

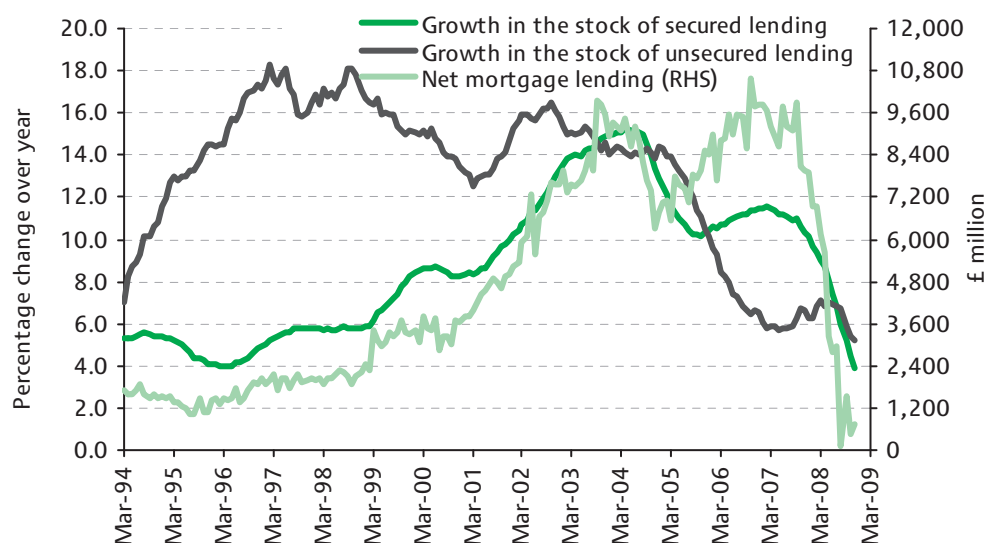
reflects exceptional pressures on banks and building societies, which have affected the availability and supply of credit (Figures 4.6 and 4.7, and see Box 4.1 later for more on the impact of bank deleveraging). Net new mortgage lending is very low compared with recent history.

Figure 4.6. Credit availability (Bank of England Credit Conditions Survey)



Source: Bank of England.

Figure 4.7. Growth in the stock of lending to households and absolute amounts of monthly net mortgage lending



Source: Bank of England.

Lower credit availability is a negative factor for housing transactions, house prices and residential investment. The link between secured borrowing and consumer spending will largely work through housing equity withdrawal.⁴ However, the link between housing equity withdrawal and consumer spending appears to have been variable, so it is difficult to draw firm conclusions. UK consumers needed to borrow (a bit) to consume and invest (in fixed assets) at average 2007–08 levels; they could only fund 90% of this spending from disposable income. We continue to think that as far as aggregate household

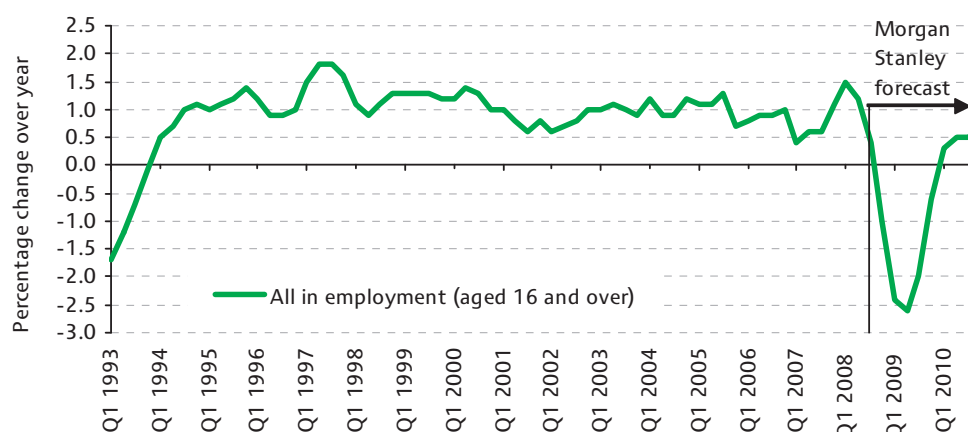
⁴ An increase in housing equity withdrawal simply means that mortgage lending has increased ahead of investment in housing – i.e. in aggregate, households are using secured borrowing to free up funds to invest in other assets, to pay down unsecured debt or to spend.

consumption spending is concerned – as opposed to housing market activity – the average interest rate on the stock of mortgage debt is more important than the availability and cost of new lending.

Employment and wages

Employment growth (Figure 4.8) and wage growth seem likely to subdue near-term consumer spending growth. We expect employment growth to lag the downturn slightly and that unemployment will continue to rise for at least a couple of quarters after quarter-on-quarter GDP growth has turned positive.

Figure 4.8. Employment growth



Sources: ONS; Morgan Stanley Research forecasts.

There are few areas of employment that look likely to be unscathed in this recession: manufacturing sector employment looks vulnerable through its cyclicity and also through the number of jobs connected to the beleaguered motor industry. But over the past five years, the manufacturing sector has already shed around a million jobs. One of the strongest increases in numbers employed over the past five years has been in business services, which looks vulnerable in light of the sharp corporate profits declines we expect. Relative to the size of the sector, increases in employment had also been particularly marked in the construction sector. The near-term outlook for residential construction remains poor. However, there are a number of big construction projects underway and the government announced in the November 2008 Pre-Budget Report (PBR) that it was aiming to bring forward £2.9 billion of public sector investment originally planned for 2010–11 into 2008–09 and 2009–10.

In an environment of rising unemployment and declining inflation, nominal wage settlements in the private sector are unlikely to pick up. There is also a great deal of 'hidden' unemployment,⁵ which is likely to continue to constrain wage growth. The relatively tight settlement for public spending departments announced in the October 2007 Comprehensive Spending Review (see Chapter 9) has also led to the government attempting to slow pay growth in the public sector.

⁵ Working-age inactivity levels have risen over the past 10 years after a sharp rise following the last recession. Although this has been declining as a percentage of the working-age population, the decline has been very gradual.

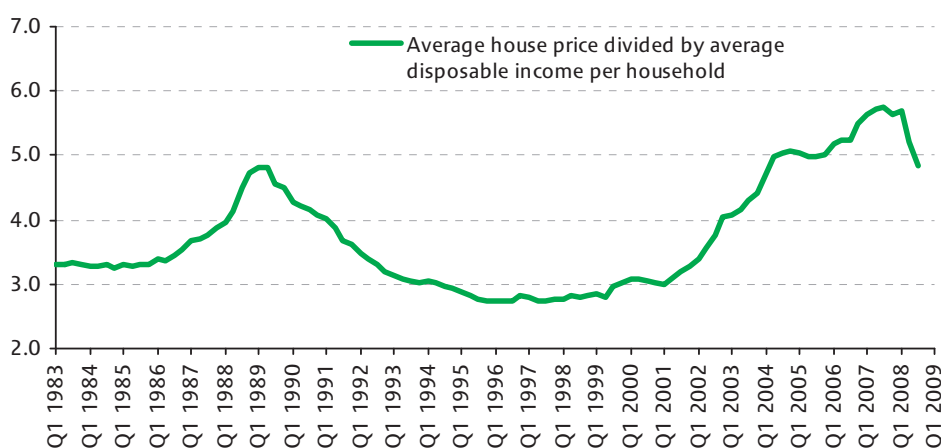
Housing, equities and the wealth effect

Since the end of 2007, house prices have fallen some 15% or so (depending which measure of house prices you look at). The FTSE All-Share has declined by around 30% (and international equities around 20% in sterling) over the same period. These significant falls in housing and equity prices have created a substantial fall in household wealth of around £600 billion for housing and, we estimate, roughly £400 billion in the case of equities (reflecting both direct and indirect holdings, such as those held in private pensions).

House prices: House prices have fallen rather rapidly over the course of 2008, while transactions have declined by much more. Our main house price model⁶ suggests that we are almost the entire way through the correction so that (in nominal terms) we would expect a further decline of only around 5% or so. However, the numerical results of the model are sensitive to assumptions made on the path of real mortgage rates, the pace of house-building and the proportion of house price expectations that are backward- and forward-looking. (We find that expectations play a significant role in determining UK house prices.)

Because the models we use do not capture well the non-price tightening in credit conditions, we think that the balance of risks is skewed towards a larger decline in house prices than in our central forecast. Simple measures of housing valuation and affordability have looked stretched for some time and, despite substantial falls in prices, they continue to do so. The average house

Figure 4.9. House prices relative to average household disposable income



Notes: Average house price uses HBOS series. Average disposable income uses aggregate disposable income of the household sector divided by the (interpolated) number of households.

Sources: ONS; HBOS; DCLG; Morgan Stanley Research.

price (as of Q3 2008) was still 4.8 times average household disposable income, compared with a long-term average of about 3.7 times (Figure 4.9). If disposable income were to stay constant, getting back to this historical average would require another 20% fall in house prices. Seen from an investor perspective, UK housing also looks expensive. The net yield on UK residential property fell below the FTSE 100 dividend yield in 2007, reaching its lowest level since at least 2001.

⁶ See M. Helsby, D. Miles, S. Hayne and M. Baker, *UK Banks & Economics: The Mortgage Markets, the Wider Economy and the Banks in the Credit Crunch*, 14 April 2008.

Housing wealth and transaction effects on consumer spending: Yet the link between household spending and house prices is variable over time and may not be especially strong. We use a mid-point of academic estimates of the wealth effect (that consumers spend around 2.5% of the change in housing wealth) to estimate the impact of the decline in housing wealth on household spending. The £600 billion decline in housing wealth would therefore imply about a £15 billion hit to consumer spending (1.7% of consumer spending or around 1% of GDP) – a figure comparable to the extra disposable income those with mortgages might get following sharp falls in interest rates.

Negative equity: Based on the distribution of LTV ratios in mortgage lending up to the end of 2007, we estimate that a total decline in house prices (peak to trough) of 20% would leave close to 2 million mortgages (or about 17% of the total) in negative equity. That would affect a large proportion of the UK population. Further, of the existing mortgages at the end of 2007, a significantly higher proportion will now have LTVs above 80% (the point at which mortgage availability appears relatively limited). However, being in negative equity or having a high LTV mortgage does not directly impact a person's incomings and outgoings; but it is likely to do so when they want or need to remortgage or to move home. However, the sharp decline in lenders' standard variable rates will help here (see page 55).

Equities: The decline in equity wealth is also big, at about £400 billion, we estimate. Studies suggest that the impact on consumption of a change in equity wealth is 2–4% of the change in equity wealth in the UK. This could imply another £8–16 billion hit to consumer spending.

Business investment

Our central forecast is for real fixed investment spending to contract by more than 4% in 2008 after an increase of around 7% in 2007, and then contract by a further 7% in 2009. Within that, we expect business investment to slow in both 2008 (–0.3%) and 2009 (–5.9%) on tight credit conditions, a difficult global environment and an earnings recession. Investment plans have deteriorated sharply over the year on a number of survey metrics. Morgan Stanley analysts expect total global capital expenditure to decline by 8–10% in nominal terms in 2009 and that some of the most significant investment contractions will be in hotel/leisure, construction, transportation and retail sectors.⁷

The outlook for business investment remains uncertain because it is tied to expectations of the economic outlook and order books. These deteriorated quickly in the last quarter of 2008 and may again change rapidly. Those expectations may change on the upside (for example, on signs that the large policy stimulus enacted by authorities across the globe is starting to have some traction). Assessments of the output gap (Figure 4.16 later) suggest that the economy did not have a great deal of spare capacity heading into this recession, and without a large overhang of excess capacity to work through, the recovery in investment may come quite quickly. Expectations may also worsen (the global economy continues to fail to respond to the policy stimulus as consumers and companies retrench across different economies).

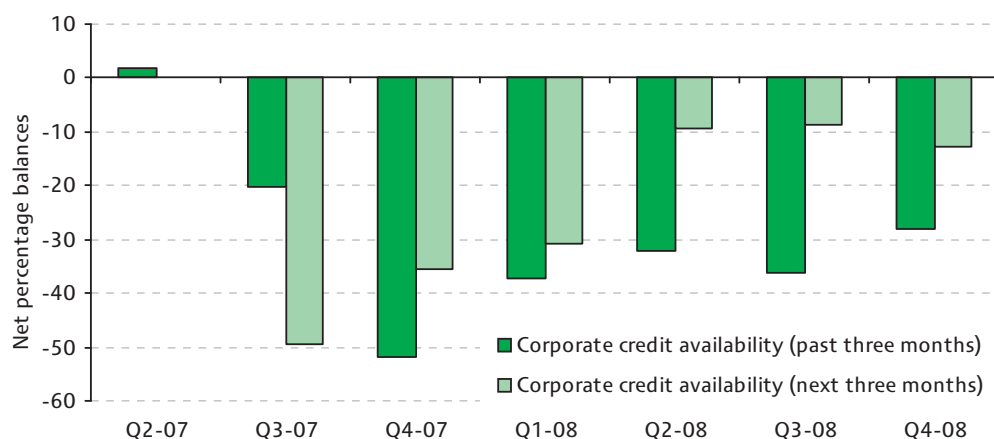
Credit conditions – cost and availability of credit (and capital)

Investment seems likely to remain depressed by the tightening in credit conditions.

⁷ S. Babka et al., *Capital Goods: Cutting Estimates Sharply but Changing Tactics*, Morgan Stanley Research, 3 November 2008.

Availability of credit: Lenders (in the Bank of England’s Credit Conditions Survey) have reported that, on balance, they have reduced corporate credit availability for six successive quarters and expect to reduce availability further (Figure 4.10). Although undrawn credit lines are extensive at many UK banks, Morgan Stanley credit strategists suggest that this is largely not funding that corporates could use as a substitute for term funding, as it contains large portions of short-term funds, consumer-related credit lines and liquidity facilities to the banks’ own commercial paper conduits.⁸

Figure 4.10. Bank of England Credit Conditions Survey: corporate sector credit availability



Notes: Net percentage balances are the difference between the weighted balance of lenders reporting that, for example, demand was higher/lower or terms and conditions were tighter/looser. The net percentage balances are scaled to lie between ± 100 .

Source: Bank of England.

Lending growth to private non-financial corporations seems to have slowed sharply, although separating the effects of shifts in demand from the effects of shifts in supply is difficult. M4 lending to private non-financial corporations (the stock of loans) grew 5% year on year in November 2008 from a recent high of 20% in February 2007.

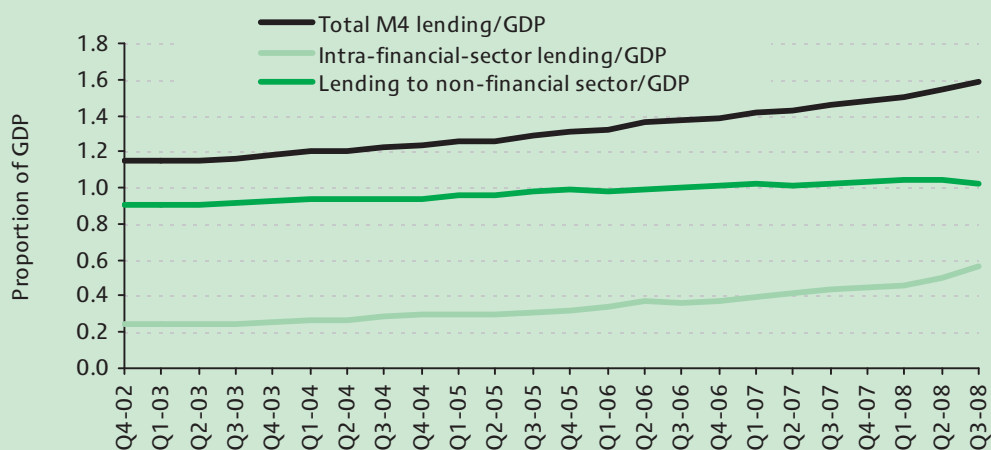
Box 4.1 gives more detail on the impact of bank deleveraging.

Box 4.1. Does deleveraging have to reduce non-financial sector credit?

The impact of deleveraging depends on how leverage was built up. Figure 4.11 shows that lending by UK monetary and financial institutions has increased greatly over the past 10 years. The ratio of gross M4 lending to GDP – one simple measure of leverage for the whole economy – increased from close to 105% to 160% between 2000 and the third quarter of 2008. A substantial part of that increase represents lending by banks to other financial institutions. This intra-financial-sector lending rose from 23% of GDP to about 57% of GDP; M4 lending to the private non-financial sector rose much less sharply – from around 81% of GDP to 102% of GDP.

⁸ A. Sheets et al., *Fear of Commitments*, Morgan Stanley Research, 26 November 2008.

Figure 4.11. UK bank and building society sterling lending (M4 lending)



Note: Figures show lending by M4 lending institutions (banks and building societies) in sterling to the non-bank private sector – disaggregated into lending to the private non-financial sector and loans to other (non-bank) financial institutions.

Sources: Bank of England; ONS; Morgan Stanley Research.

So, more than 60% of the very substantial rise in total economy leverage since 2000 came about due to lending between financial firms. Much of that rise came about as banks sold assets that once would have sat on their balance sheets (largely as loans) to non-banks (e.g. hedge funds) who financed the acquisition with loans. Some of that activity came about through off-balance sheet vehicles (structured investment vehicles and special purpose vehicles). If this process were to go into reverse, deleveraging in the economy could be very substantial while the availability of credit to the non-financial sector is little affected. The example outlined below shows how:

The creation and destruction of leverage

Old-fashioned bank

Assets	Liabilities
100 (loans)	10 (equity)
	90 (deposits)

Total debt in economy (gross): 100 of loans to non-banks + 90 bank debt = 190

New bank firm

Assets	Liabilities
100 (loans/ABCP)	10 (equity)
(loans/ABCP)	90 (deposits)

New non-bank financial

Assets	Liabilities
100 (ABS)	100

Total debt in economy (gross): 100 of loans to non-banks + 90 bank debt + 100 of bank loans/ABCP to the new non-bank institution = 290

Notes: ABCP = asset-backed commercial paper; ABS = asset-backed securities.

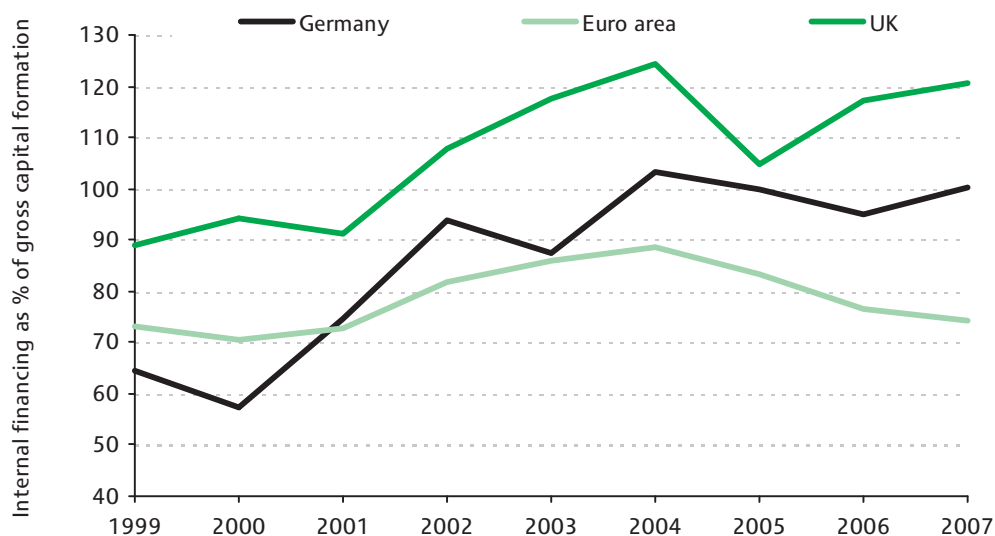
In the example illustrated above, the transition from an old-fashioned bank (with loans held on balance sheet financed by debt raised from the non-bank private sector) to a new bank (with loans securitised and sold to a financial institution that is financed by bank debt) sees leverage rise by over 50% as gross debt rises from 190 to 290. But that process could go into reverse with no change in the availability of credit to the non-bank private sector. The example above suggests that, in principle, very substantial deleveraging need not create substantial aggregate problems for the economy.

Cost of credit: There is mixed evidence on what is happening to the cost of credit. Since the start of the credit crunch, government bond yields have fallen sharply, but corporate bond spreads have risen, leaving corporate bond yields significantly higher. Latest data on effective (new) bank lending rates to corporates from the Bank of England show sharp declines. This broadly tracks the movements in 3-month libor such that lending rates should decline significantly further in future data releases. However, the Bank of England Credit Conditions Survey indicates that for lending to private non-financial corporations (PNFCs), fees and commissions have increased, collateral requirements have increased and loan covenants have been tightened (i.e. the cost of credit has increased other than just through the interest rates charged on loans).

However, the cost of credit is irrelevant if credit cannot be obtained (at the extreme, if a company cannot obtain any credit, then its cost of credit is effectively infinite).

Reliance on borrowing: The effect of tightening credit conditions on investment partly depends on the reliance of UK corporates on borrowing to fund investment. Non-financial companies in the UK can, in aggregate, fund 100% of their fixed investment from retained earnings (although they would need to borrow in order to undertake direct investment or mergers and acquisitions).

Figure 4.12. Non-financial corporates: internal financing as a percentage of gross capital formation



Note: Calculation is, for the non-financial corporate sector, gross (including depreciation) corporate savings divided by gross capital formation.

Sources: ONS; Morgan Stanley Research.

That aggregate 'internal financing ratio' is higher than in Germany and the euro area as a whole (Figure 4.12), but partly reflects high profit levels that are likely to prove unsustainable. Morgan Stanley equity strategists expect a sharp 'earnings recession' in 2009 and into 2010 (see Chapter 6), forecasting that UK profits will contract by a third. They think that with the domestic and global economies set to face their biggest slowdown since the early 1990s, if not the early 1980s, the outlook for corporate profits looks particularly bleak, especially when coupled with the probability of a sharp contraction in profitability as operational and financial leverage go into reverse. If we were to assume that the UK corporate return on equity (RoE) falls from its current level

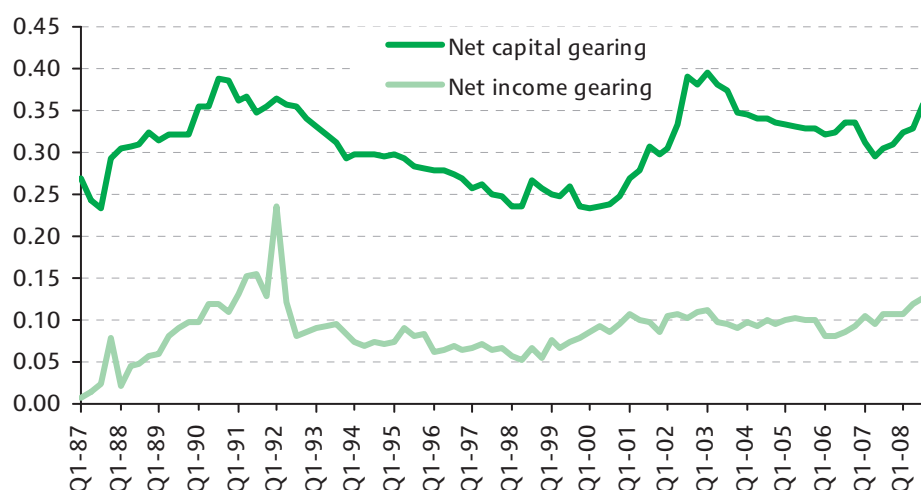
of 19% to the previous trough of 10%, this would imply close to a 50% fall in corporate earnings.

Conservation of working capital: Investment plans are also being cut simply in order to conserve working capital. This is a natural consequence of the economic downturn through expectations of deteriorating profits, but it is exaggerated through corporate worries about financing and the ability to access credit.

Corporate balance sheets

UK private non-financial firms appear to have relatively strong balance sheets (in aggregate) and are shielded to some extent by the recent robust growth of aggregate retained income. But these levels of earnings are likely to fall. Private non-financial corporate sector holdings of cash (currency and deposits) are large (around £700 billion in Q3 2008, or around 50% of GDP). The level of capital gearing does not look significantly above historical averages (Figure 4.13). Further, in terms of refinancing needs, the Bank of England, in its October 2008 Financial Stability Report, stated that Dealogic data suggest that only 10% of the stock of sterling-denominated bonds and loans outstanding are due to mature in 2009. Net income gearing also does not look alarmingly high, although it has risen steadily over the past couple of years (Figure 4.13). However, as a percentage of GDP, the level of UK non-financial company corporate debt

Figure 4.13. Private non-financial corporate gearing (ratios)



Notes: Net capital gearing measure: [non-equity financial liabilities less liquid assets (we use currency and deposits plus money market instruments plus bonds)] divided by [numerator plus 'shares and other equity']. Our net income gearing measure: net interest paid divided by gross operating surplus.
Sources: ONS; Morgan Stanley Research.

has risen significantly over the past decade.⁹ Further, the aggregate statistics are likely to hide large pockets of vulnerability – the Bank of England suggests that the proportion of debt held by businesses whose profits were not enough to cover their debt interest payments picked up in 2007 to about 25%. Just as consumers are not likely to increase spending sharply as the economy improves in order to build up their savings and pay down debt, so the same may be true of the corporate sector in terms of investment spending.

⁹ Liabilities that are securities other than shares, plus loans less direct investment loans.

Global environment

Uncertainty on the outlook for exports remains high. We do not expect to see positive GDP growth in the euro area (the UK's main trading partner) until the second half of 2009. Therefore, external order books at least may take several quarters to pick up. Furthermore, the global nature of the downturn will leave few places to hide in terms of pockets of resilient demand for UK products. The 25% depreciation in the trade-weighted sterling since the summer of 2007 is potentially a powerful offset to this.¹⁰ This should enable UK-based firms to price their products and services more competitively in global markets and help UK-based firms to compete in the UK against firms from overseas.

Downturn in commercial property

The buildings and structures component of business investment remains vulnerable (15% of total fixed investment is private non-financial corporations' investment in non-residential buildings and structures). In particular, the commercial property sector is capital-intensive and has been affected by reduced availability of credit and overhang of supply in some sectors (rental and investment). Commercial property prices have declined sharply. Data derived from derivatives based on the IPD UK commercial property index suggest total capital growth of -23.4% in 2008 and another -24.1% in 2009. If realised, Morgan Stanley property analysts estimate that this would leave a high proportion of commercial property loans made between mid-2005 and mid-2007 in negative equity. This would likely significantly constrain the availability of financing for new commercial property projects. They suggest that practically all commercial property developers have deferred or abandoned the start of any development to which they are not already irrevocably committed.

Monetary policy

On our central case, the Bank of England keeps rates roughly where they are through most of 2009, then starts raising them back to around 'neutral' (see below) by the end of 2010. All else equal, further aggressive rate cuts and even moves into further 'unconventional' easing measures raise the risk of a quick and sharp policy reversal in late 2009/2010.

There are likely to be further big moves in inflation over the coming couple of years (not least due to the temporary VAT rate cut; see Chapter 10). The Bank of England is likely to look through these (and much of the impact from volatile commodity prices) just as it has looked through the sharp rise in inflation in much of 2008 in deciding on interest rates. If the economy continues to decelerate, we have few doubts that the Bank of England will loosen monetary policy further and try to boost lending, whether by cutting rates further and/or by using additional unconventional monetary policy measures.

Neutral rates

Before the credit crunch, we had considered policy rates of around 5-5½% to be about 'neutral' in the UK – that is, at a level such that if capacity utilisation is sustainable, and if growth is at its trend level, inflation would settle at around the target level (2% CPI

¹⁰ If, for example, the price elasticity of the volumes of exports and imports were each ½ – so that the Marshall-Lerner conditions were just satisfied – there would ultimately be a roughly 12½% rise in the volume of exports and a 12½% decline in the volume of imports if the depreciation in sterling since mid-2007 were to be sustained. That would represent a boost to demand of around 7½% of GDP. Empirical evidence does suggest that the Marshall-Lerner conditions, that the sum of price elasticities is at least unity, are just satisfied for the UK.

inflation).¹¹ However, given that bank costs of financing relative to the policy rate have risen and that some of this differential is likely to linger, we estimate that a neutral rate is now around half a percentage point lower.

Inflation outlook

RPI inflation is likely to be negative (year on year) for much of 2009. Year-on-year CPI inflation is likely to be briefly negative in 2009. Disinflation and fear of deflation are likely to be a prominent theme during 2009. However, much of this 'deflation' simply reflects a reversal in the drivers of strong inflation seen last year, particularly lower oil prices. The large rate cuts from the Bank of England also have a strong downward impact on RPI inflation (through the mortgage interest payments component). Further, the temporary VAT rate cuts also help to drive the fall in year-on-year inflation in 2009 and to generate a strong rise in inflation in 2010. By 2011, we tentatively expect CPI inflation to be roughly at the target (hence our central case is not for further rate cuts).

There are both upside and downside sources of risk to this profile. On the upside, the significant depreciation in sterling could affect (especially goods price) inflation strongly in 2009 and help to offset the downside factors highlighted above. Many firms are likely hedged to a degree against foreign exchange movements so that the effects of a weaker sterling may come through with a lag and accentuate the up-move in inflation in 2010. On the downside, there are still significant risks to our central GDP growth forecast. Domestically-generated inflation could therefore be a lot lower than we expect.

Real rates

Negative year-on-year inflation in 2009 is likely to increase simple measures of the real interest rate. Some have expressed worries that this will effectively kill off prospects of a recovery in 2009. We think that this is not the most likely outcome and in fact we are more likely to see 'good deflation' rather than 'bad deflation'. 'Good deflation' boosts real incomes, is not led by domestic demand pressures and is temporary. If this is what we see, medium-term inflation expectations would probably not move into deflation territory and prospects for economic recovery would be such that perceived real returns on fixed investment projects (for example) would remain positive. 'Bad deflation' has broadly the opposite characteristics, and if that is what we see it would increase the real debt burden – possibly in a self-reinforcing way (see Box 4.2). This is the outcome that the Bank of England is determined to avoid. We are relatively confident that the policy measures taken so far (in the UK and abroad, particularly in the US) and the measures probably still to come will work such that 'bad deflation' is avoided.

¹¹ In reaching this judgement, we use a five-equation model that allows us to determine the long-run steady-state levels for key macroeconomic variables. With inflation roughly at target, this steady state has base rates at a 'neutral' level of just over 5¼%.

Box 4.2. A 'deflation' scare

With growth forecasts for 2009 being reduced sharply by analysts and institutions, and with inflation on a downward trajectory in most major economies, 'deflation' has re-entered discussions on the global outlook.

We think it is likely that UK inflation on the RPI measure will move significantly into negative territory (year on year) and that CPI inflation will dip into negative territory (Figure 4.14).

However, here we would make a qualitative differentiation between 'good deflation' and 'bad deflation'. We expect good deflation, but bad deflation is the outcome that policymakers are determinedly trying to avoid.

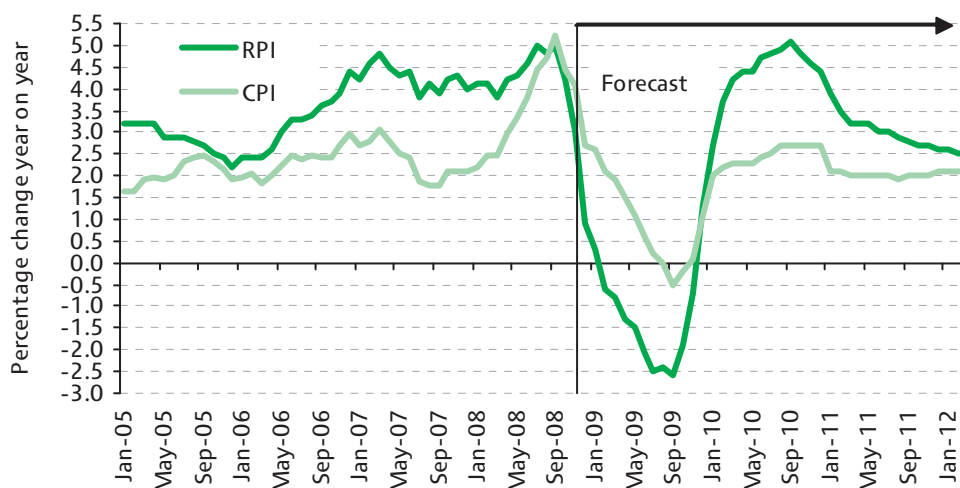
Good deflation: By good deflation, we mean deflation led by cuts in mortgage rates (reflected in RPI) and cuts in energy prices (reflected in both CPI and RPI) as well as falling food prices. These do not primarily reflect lower demand and incomes in the UK economy. These types of falls in prices increase the real disposable income of households – all else equal, they make UK households better off and should spur increases in consumer spending.

Bad deflation: By bad deflation, we mean domestically-generated (endogenous) deflation. In this scenario, lower domestic incomes and lower demand lead to lower prices and sustained or increased deflation. Nominal interest rates cannot (at all easily) be negative, so even at zero interest rates, deflation would imply positive real interest rates and an increased real debt burden that can then curtail domestic demand further, increasing domestically-generated deflation.

A deflation 'scare' is likely, and is probably underway already, given the levels of break-even inflation calculated from the difference between nominal government bond yields and yields on real (index-linked) government bonds. These declined dramatically in the latter part of 2008. However, we do not expect a prolonged (or indeed, problematic) period of deflation in the UK:

- UK households are highly leveraged such that any given change in interest rates has a bigger effect on available income. Not only are UK households highly leveraged, but most of this debt is variable-rate debt, much of which is directly tied to the policy rate or (one- to three-year) short-term fixed-rate debt so that policy rate changes hit household incomes relatively quickly. We have seen massive rate cuts from the Bank of England.
- The UK authorities are determined to avoid deflationary outcomes.
- This period of slowdown has not followed a large boom in the UK economy. We believe that there is limited spare capacity in the economy. Without a large overhang of excess capacity, the chances of avoiding bad deflation improve.
- UK financial institutions are writing down debts so that a very prolonged balance-sheet drag from underperforming assets is not likely.
- Sterling has depreciated markedly.

Figure 4.14. Morgan Stanley central inflation forecasts



Sources: ONS; Morgan Stanley Research forecasts.

The transmission mechanism

Bank of England monetary policy remains much harder to operate under recent financial market conditions. Few households and companies explicitly pay or receive the policy rate (although many households hold debt with an interest rate linked to movements in the policy rate). The spread between rates they actually pay and receive and the policy rate has become more volatile since the summer of 2007. This affects the transmission of monetary policy. The 'credit crunch' has also limited the availability of credit such that interest rate changes have a more limited effect on the economy. The large increments with which the Bank of England has moved rates could be seen as one way of getting around problems with the transmission mechanism – using a blunt instrument, but hitting hard. However, without improvements in the availability of credit, the effects of any further rate change on the real economy will be limited.

The Bank of England's reaction function

The Monetary Policy Committee of the Bank of England has cut rates sharply over a relatively short period and in much larger increments than had become usual since it was introduced in 1997. The Bank of England is an inflation targeter, but its mandate allows for a wider focus:

- a) to maintain price stability (where the operational target is 2% CPI inflation at all times); and,
- b) subject to that, to support the economic policy of Her Majesty's Government, including its objectives for growth and unemployment.

The framework also explicitly recognises that actual inflation will 'depart from its target as a result of shocks and disturbances' and that 'attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output'.

The Bank of England has seen such shocks and disturbances impact the economy on a large scale through large moves in commodity prices and the fallout from the financial crisis. The assessed probability distribution of inflation two years or so forward on its (November 2008) fan charts has been sharply lowered compared with the recent past.

The zero bound and unconventional policy measures

Even in our pessimistic case (see Section 4.4), we think that there are reasons why the Bank of England should not lower rates to zero. UK banks have large amounts of short-term variable-rate assets (most UK mortgages are short-term fixed-rate mortgages or variable-rate mortgages – many of which are linked to the policy rate). As the base rate is lowered, banks are largely obliged to pass on much of this. However, their cost of liabilities may be stickier (many deposit ‘current’ accounts, for example, have for a long time only paid low rates of interest).¹² This implies that sharp further cuts in the policy rate could be counterproductive because they could weaken banks and reduce further the supply of new lending.

Having reached whatever lower bound of interest rates it would be comfortable with, where could the Bank of England go next? In 2003, a *Quarterly Bulletin* article reviewed some of the policy options for the operation of monetary policy ‘beyond the zero interest rate bound’.¹³ These include injecting liquidity into the private sector by buying illiquid bonds or private sector assets (specifically, involving the private sector giving up an illiquid asset and taking a more liquid one in return) and intervening in FX markets. The bank has already gone some way down this path with its Special Liquidity Scheme and extended collateral repos. They do not represent outright purchases, however. An additional step would be to buy assets outright, expanding further the Bank of England’s balance sheet. The Bank of England’s balance sheet has already expanded a great deal. We discuss more unconventional measures and ‘solutions’ to current financial system problems in Chapter 8.

4.3 Trend growth and the economic cycle

In this section, we discuss how the UK’s productive potential is likely to evolve and consider whether the sharp slowdown will have a substantial impact on capacity in the medium term. This is a crucial factor behind any assessment of the longer-term sustainability of fiscal policy. An economy’s potential output growth is the best guess at the average growth rate we are likely to experience over a long time horizon; it is a key determinant of future tax revenues. Alternatively, potential output growth can be viewed as the economy’s speed limit; when the economy grows more slowly than the limit set by its potential (or trend) growth rate, in time inflation pressures will tend to be decreasing and the central bank is likely to respond by lowering its policy interest rate. A key question is whether the recession we are now in will have a significant impact on the evolution of the productive potential of the economy.

Potential growth

We can decompose growth in national output into the (weighted) sum of three key components: changes in employment (specifically in the amount worked); changes in the amount of capital per worker (known as capital deepening); and technological progress (also known as growth in total factor productivity, or TFP). To work out the relative

¹² Many deposit balances pay close to zero interest already and, in the interests of building up a more sustainable balance sheet, banks will probably want to encourage depositors at the expense of new borrowers.

¹³ Bank of England, ‘Monetary policy and the zero bound to nominal interest rates’, *Quarterly Bulletin*, Spring 2003.

contribution of these three components, we use a production function, which relates an economy’s output to the available inputs (labour and capital) and the existing technology. By using historical data on the evolution of output and inputs such as employment levels and the stock of capital, we can get a sense of the economy’s ability – or efficiency – at transforming inputs into outputs (TFP). We can also see how this ability has evolved over time. The key results of this exercise are shown in some detail in Tables 4.1 and 4.2.

Table 4.1 looks at how changes in the supply of labour have contributed to shaping the evolution of UK potential growth. The supply of labour is decomposed into the participation rate, the employment rate and the number of hours worked by employees. The contribution of each of these components towards potential growth is then calculated and shown in Table 4.1. It is evident that rising labour participation and population growth have had a steady and positive influence on UK potential growth. But we expect the contribution of these factors to be lower in the future.

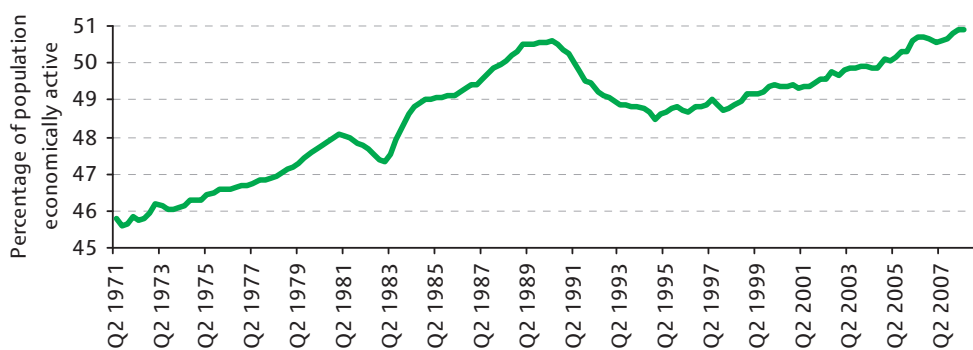
Table 4.1. Potential GDP growth (part one): the contribution of labour inputs

Factors: (percentage point contributions)	Labour participation	Employment rate	Hours worked	Population growth	Total contribution: labour variables and population
1972–2007	0.2	0.0	–0.2	0.2	0.2
1996–2007	0.2	0.2	–0.2	0.4	0.7
2001–2007	0.3	0.0	–0.2	0.5	0.6
2001	0.2	0.2	–0.3	0.4	0.5
2002	0.3	0.1	–0.3	0.4	0.5
2003	0.3	0.1	–0.3	0.5	0.5
2004	0.3	0.0	–0.2	0.5	0.6
2005	0.3	–0.1	–0.1	0.6	0.7
2006	0.3	–0.1	–0.1	0.6	0.7
2007	0.3	–0.1	0.0	0.6	0.8
2008 H1	0.3	–0.1	0.0	0.6	0.8
<i>Forecasts</i>					
2009	0	–0.1	0	0.4	0.3
2010	0	–0.1	0	0.4	0.3
2011	0	0.0	0	0.3	0.3
2012	0	0.0	0	0.3	0.3

Note: The trend rate of the underlying components from the production function is calculated using an HP filter, which aims to decompose output into a permanent (‘trend’) component and a cyclical factor. Source: Morgan Stanley Research estimates.

Figure 4.15 shows that labour participation has continued to rise. This positive contribution is likely to diminish in the future, as labour participation is unlikely to grow sharply above current levels. This is because much of the increase over the last 35 years has been due to increasing female labour market participation. Also, the baby boomers are now starting to hit the state pension age and therefore are likely to have lower labour market participation rates. Lower growth in net migration may also be a factor here. This is one of the reasons behind our expectation that the overall contribution of labour variables towards potential growth is likely to decline, leading to lower potential GDP growth between 2009 and 2012.

Figure 4.15. Labour participation



Note: We define labour participation as employment plus unemployment (aged 16 years and above) divided by the overall population.

Sources: ONS; Morgan Stanley Research.

Table 4.2. Potential GDP growth (part two): capital deepening and innovation

Factors: (percentage point contributions)	Capital deepening	TFP growth	Total contribution from labour variables and population (from Table 4.1)	Overall potential GDP growth from sum of filtered contributions	Actual observed GDP growth
1972–2007	0.4	1.8	0.2	2.4	2.4
1996–2007	0.7	1.5	0.7	2.9	2.9
2001–2007	0.7	1.3	0.6	2.6	2.5
2001	1.1	1.4	0.5	2.9	2.4
2002	1.0	1.3	0.5	2.7	2.1
2003	0.9	1.2	0.5	2.6	2.8
2004	0.7	1.2	0.6	2.5	2.7
2005	0.6	1.3	0.7	2.6	2.0
2006	0.4	1.3	0.7	2.5	2.8
2007	0.4	1.4	0.8	2.5	3.0
2008 H1	0.3	1.4	0.8	2.5	2.2
<i>Forecasts</i>					
2009	0.0	1.4	0.3	1.7	
2010	0.0	1.4	0.3	1.7	
2011	0.1	1.4	0.3	1.8	
2012	0.1	1.4	0.3	1.8	

Note: The trend rate of the underlying components from the production function is calculated using an HP filter, which aims to decompose output into a permanent ('trend') component and a cyclical factor.

Source: Morgan Stanley Research estimates.

An estimate of TFP growth is shown in Table 4.2 (second column).¹⁴ We find no evidence of a trend rise in TFP growth. Capital deepening seems likely to be hindered by past high oil prices and the credit crunch.

¹⁴ We estimate TFP by using a standard (Cobb–Douglas) production function (for details, see D. Miles with M. Baker and V. Pillonca, 'The economic outlook', in R. Chote, C. Emmerson, R. Harrison and D. Miles (eds), *The*

Our forecasts for labour inputs, capital deepening and TFP growth suggest that after recent potential growth of around 2.5% a year, we may see lower potential growth over the next few years thanks to the lower contributions from capital deepening and labour market variables. Over the past four years, we estimate that productive potential has grown by around 10%; over the next four years, we estimate that this may be around 7%. This means that by 2013 the level of output is about 3% lower than it would have been had recent trends persisted.

The balance of risk for potential growth, however, is not entirely skewed to the downside. Supply-side responses to some of the huge shocks we have seen over the past year may be pro-growth in the medium term. In particular, the hit to household wealth from falls in equities and house prices and a perception by households that their debt levels are too high relative to their incomes may all raise labour supply: for example, those experiencing large negative shocks to their wealth might choose to delay their retirement (see our 'optimistic' case in Section 4.4).

The output gap

The production function approach discussed in the previous section (Tables 4.1 and 4.2) relied on specific economic assumptions.¹⁵ Here we focus on methods that distinguish an underlying trend directly from the actual data on output. In other words, we do not have to make any specific assumptions about the nature of the production function or about what is happening to the labour force or capital stock.

Here we use a statistical approach that is simply based on the path of output to look at economic fluctuations and the dating of business cycles. Figure 4.16 shows the result of this exercise.

The economic cycle is made up of two phases: a period when output is above trend followed by a period when output is below trend. When actual output exceeds potential output, the output gap – the percentage difference between actual output and potential output – is said to be positive. At an on-trend point, the output gap is zero, as actual and potential output are equal.

We compute potential output using simple Hodrick–Prescott (HP) filters. Unlike the production function approach to measuring trend output and spare capacity, this is just a means of fitting a smooth – but changing – pattern of trend growth. We use the filters to see whether the results they generate match our findings from the production function approach, which suggested at best recent potential output of 2.5%, and our forecasts using that production function, which suggest a decline in potential output growth ahead. Running the filtering to Q3 2008 (i.e. not conditional on our forecasts) suggests that potential growth was around 2.4% in the first three quarters of 2008, broadly consistent with the results from our production function approach.¹⁶

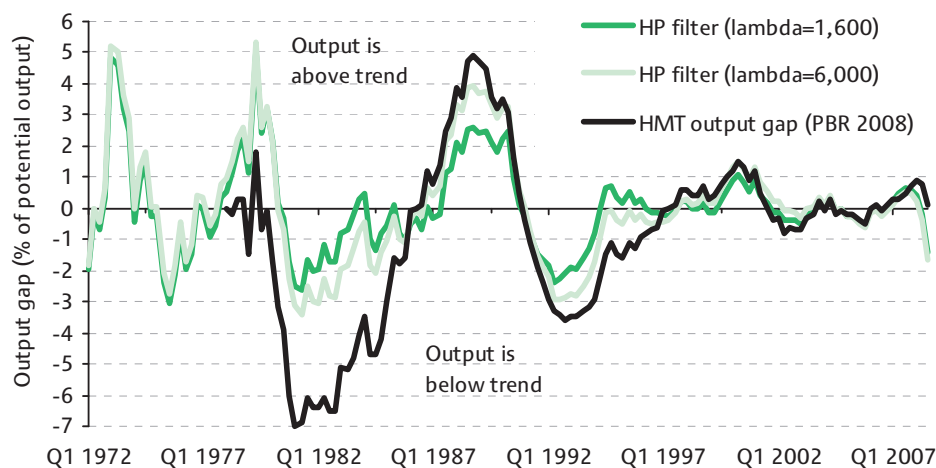
IFS Green Budget: January 2006, IFS Commentary 100, available at <http://www.ifs.org.uk/budgets/gb2006/06chap3.pdf>.

¹⁵ For instance, we assumed a simple Cobb–Douglas specification where technology enters multiplicatively.

¹⁶ Note, however, that running the filter on a GDP series including our forecasts would instead suggest that trend growth was only around 1½% in Q3 2008 and is likely to remain around that level for the next couple of years at least. One property of this filtering technique is significant sensitivity to the last data point. Since the last data point of the forecasts is different from using actual data, this results in a different assessment of potential growth.

Figure 4.16 shows the amount of spare capacity corresponding to these various measures of the trend, and compares it with the Treasury’s own estimate, which tends to show more marked deviations from the trend than the statistical algorithms. The Treasury estimated in November’s PBR that economic activity was around one-tenth above potential in Q3 2008. The Hodrick–Prescott filters suggest a figure closer to –1.4%.

Figure 4.16. Cyclical fluctuations in the UK economy since 1978



Sources: HM Treasury; Morgan Stanley Research.

The Treasury’s current projections of the output gap show the economy returning to trend in 2013. The Treasury assumes that 4% of potential output is lost (between Q3 2007 and Q3 2009) due to financial market turmoil and the recession. Using the HP filter methodology and our own central forecasts for growth, we estimate a loss of potential output of slightly more than 4.0%. We calculate this loss by comparing how the HP filter series evolves from the end of 2007 using our best guess of actual growth with how the filtered series would evolve assuming constant growth in actual output at the same trend rate as on the eve of the slowdown. The tendency of the filtered series to follow the actual series is why the filtering technique allows us to assess how a period of sub-trend growth itself reduces productive capacity. We estimate that this means output is just over 4% lower – though it takes longer for that productive capacity to be ‘lost’ than under the Treasury assumptions.

Dating the cycle

There is inevitably a degree of subjectivity when dating the cycle. That is even the case when using statistical filtering – these show that until recently the economy operated close to trend for several years, with small fluctuations around this trend. This continues to make the identification of distinct cycles particularly hard.

Using an HP filter, the average duration of a full economic cycle has been about six years – less than under the Treasury’s methodology (Table 4.3). Applying a simple HP filter directly on the series of UK output suggests that the economic cycle ended around the third quarter of 2006, meaning the current cycle started in the final quarter of 2006. Applying an HP filter on a series of output including our central forecasts would suggest that the current cycle

started in Q1 2006¹⁷ and will not end until Q3 2011 – a six-year cycle. As ever, there is no single way to date the cycle, and applying different filters and different techniques can lead to different conclusions.

Table 4.3. Dates of full UK economic cycles since 1987

HM Treasury	Statistical filter HP 1,600
1986Q2 – 1997H1 (45Qs)	1987Q3 – 1994Q2 (28Qs)
1997H2– 2006H1 (36Qs)	1994Q3 – 1999Q2 (20Qs)
	1999Q3 – 2006Q3 (29Qs)

Sources: HM Treasury; Morgan Stanley Research.

Conclusion: what is the trend rate of growth now?

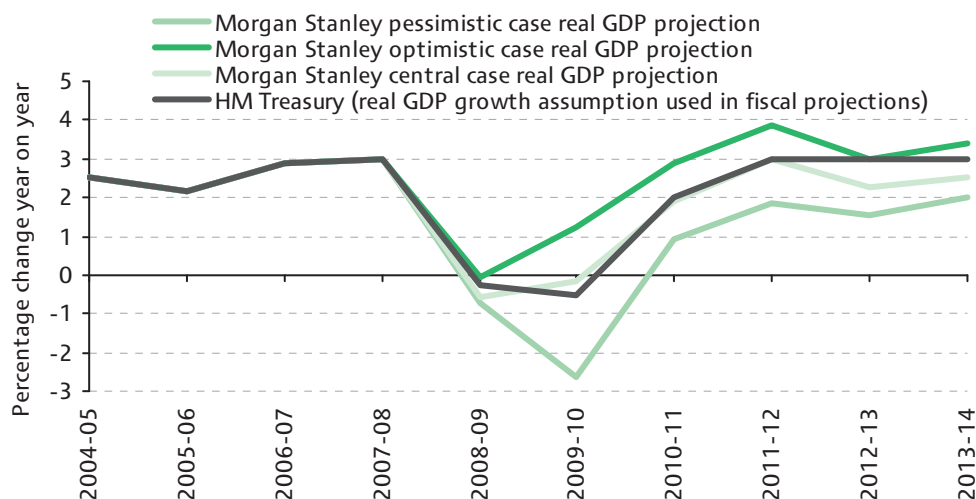
On the whole, both approaches we employed (production-function-based and pure statistical filters) suggest that UK potential output growth is currently around or slightly below 2.5% a year, but it seems likely to slow in coming years. We assume (in line with the Treasury) that this recession will result in a loss of potential output of close to 4.0%.

4.4 Conclusions: three scenarios for the next five years

As benchmarks against which to assess the outlook for the public finances, we present three scenarios for the economy over the next five years – a central case (the single most likely path), a more pessimistic case and an optimistic case. These are shown in Figure 4.17 alongside the Treasury's 2008 PBR forecast. Our central and more pessimistic scenarios differ most with respect to the economy's cyclical position over the next year or so. However, convergence between these two paths is rather slow, reflecting an assumption of a sustained difference in consumer behaviour. The downside 'tail risks' to the UK economic outlook are large such that there is a significant probability that things turn out worse than even in our pessimistic case. We see roughly a 30% probability that GDP growth turns out better than our central case, a 10% probability that growth turns out better than our optimistic case, a 70% probability that things turn out worse than our central case and a 15% probability that things turn out worse than our pessimistic case.

¹⁷ One property of this filtering technique is significant sensitivity to the last data point. Since the last data point of the forecasts is different from using actual data, this results in a slightly different assessment of past cycles.

Figure 4.17. Alternative GDP growth scenarios



Sources: ONS; HM Treasury; Morgan Stanley Research estimates.

Central case

Our central case forecasts – shown in Table 4.4 – assume a recession in the UK economy, such that GDP growth is –0.5% in fiscal year 2008–09 and –0.2% in 2009–10 (in calendar years: +0.7% in 2008, –1.3% in 2009 and +2.0% in 2010). The recovery is relatively subdued but gathers pace over 2011, with growth somewhat above the historical average heading into the ‘Olympic’ period as the pace of growth is temporarily boosted by a more rapid pace of investment.

Table 4.4. Morgan Stanley central case economic projections

	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Real GDP (% annual change)	2¾	3	–½	–¼	2	3	2¼	2½
Real consumer spending (% annual change)	2¼	3¼	½	¼	1	2½	2¾	2
Employment (% annual change)	¾	1	–½	–1¼	½	1	¾	¾
CPI inflation (% annual change)	2½	2¼	3½	¾	2½	2	2	2
Output gap (%)	½	1¾	–0	–1½	–1	¼	¾	¾
Saving rate (%)	3¾	1½	0	1	1¾	2	2	2½
Unemployment rate (%)	5½	5¼	6¼	7¾	7½	7½	7½	6½
Productivity growth (% annual change)	2	1¾	¼	1	1¾	1¾	1¾	1¾

Note: The output gap is calculated mechanically using an HP filter on real GDP (including our forecasts). Sources: ONS; Morgan Stanley Research. 2008–09 onwards are Morgan Stanley Research estimates.

We expect the next two years to be characterised by relatively weak consumer spending growth (contracting in 2009). UK households remain highly indebted, leaving them vulnerable to changes in credit conditions. Household confidence in the underlying

stability of the UK economy (to the extent that it existed) will have been shaken and households have seen a substantial hit to their wealth levels. We think that the saving rate will gradually rise as many households build up their savings to more comfortable levels. We do not expect a sharp increase in the saving rate (which could plunge the UK into a deeper recession).

Residential investment is likely to remain rather weak for a prolonged period, we think, until house prices have bottomed and have begun rising again. There is excess supply in certain areas of new-build housing and credit conditions are unlikely to return to pre-crisis levels (affecting both the supply and demand of new housing), such that we may not see a positive year of residential investment growth until 2011.

The outlook for business investment continues to look bleak in the near term. Surveys indicate a sharp slowing in investment intentions and Bank of England agents report that concerns for future pressures on working capital and the availability of external funds have led to investment plans being cut back. The outlook for demand (external and domestic) is probably still the major factor behind slowing investment, however, and we are cautiously optimistic that this outlook will look brighter as companies look ahead from around the second quarter of 2009. Into 2011, construction may also start to pick up more strongly ahead of the London Olympics.

Net trade makes a neutral-to-positive contribution to GDP growth in 2009 and 2010 on the back of the sharp fall in sterling.

This forecast for the UK economy differs somewhat from that of the Treasury. Our forecasts are similar in the near term, but we forecast somewhat weaker output growth in the latter years of the projection. We think that potential growth is slower as credit conditions remain permanently somewhat tighter than pre-crisis and that 4% or so of productive potential is lost in this downturn (in line with Treasury assumptions).

‘Pessimistic case’

Our pessimistic case – shown in Table 4.5 – is for a deep recession that is roughly comparable to the UK recession of the mid-1970s in terms of the shortfall of output below potential (and where, using our HP filter methodology, we assume that potential growth slows considerably).

Table 4.5. Morgan Stanley pessimistic case economic projections

	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Real GDP (% annual change)	2¾	3	–¾	–2¾	1	1¾	1½	2
Real consumer spending (% annual change)	2¾	3¾	0	–2½	–¼	1	1¾	1¼
Employment (% annual change)	¾	1	–½	–2¾	½	½	½	¾
CPI inflation (% annual change)	2½	2¼	3½	–½	¾	1	2½	2
Output gap (%)	¾	2½	1	–2	–1½	–0	¾	1¼
Saving rate (%)	3¾	1½	¼	3	5	6¼	5½	6¼
Unemployment rate (%)	5½	5¼	6½	9¼	9	9	9	8
Productivity growth (% annual change)	2	1¾	¼	¼	¾	1¼	1¼	1¾

Note: The output gap is calculated mechanically using an HP filter on real GDP (including our ‘pessimistic’ forecasts).

Sources: ONS; Morgan Stanley Research. 2008–09 onwards are Morgan Stanley Research estimates.

In this scenario, the household saving rate rises sharply, following a trajectory similar to the early 1990s, when there was a very sharp rise in savings in a few years. On this scenario, there are two years of contraction in household spending and three years of contraction in fixed investment (both residential and business investment contract in 2008, 2009 and 2010). The unemployment rate rises to a 15-year high with unemployment up 1.4 million peak to trough (compared with around 1 million in the early 1990s). UK GDP contracts by 3.2% in 2009.

In this scenario, households in aggregate try to build up their savings rapidly. There are several reasons why this might happen, including the following:

- The baby-boomer generation is nearing retirement and many household pension plans will have been hit by the decline in property and equities (according to an ONS survey of households over 2006–07, 60% agreed with the statement ‘investment in property is the best way to save for retirement’¹⁸). If unwilling to defer retirement plans significantly, households may ramp up sharply their rate of voluntary contributions to pension schemes.
- A large number of households are likely to be in negative equity (or close to it) by the middle of 2009. Many of these households may wish to increase their savings and need to do so rapidly in order to lower their mortgage relative to the value of their property (i.e. their LTV ratio), making it easier to obtain a new mortgage or to retain a mortgage on relatively favourable terms. Some households will have been holding back from selling a property despite a desire to move home, given conditions in the housing and mortgage market. A rise in the number of forced sellers might see such capital injections increase.

¹⁸ <http://www.statistics.gov.uk/pdfdir/wealth0108.pdf>.

Alternatively, if the availability of credit to households and corporates gets significantly worse, an investment- and consumer-spending-led deep recession would probably result.

‘Optimistic case’

A more optimistic path than the central forecast is one where the ‘lost’ output from the period of sub-trend growth is not lost permanently. That happens partly because the supply side of the economy might not have been damaged significantly by the credit crunch (an optimistic view since it assumes that the severe damage to the financial system we are seeing does no lasting damage to productive capacity). In this scenario, summarised in Table 4.6, we assume that households significantly increase their supply of labour, boosting potential output: activity bounces back strongly in 2010 (and beyond) to take GDP back close to an unchanged trend path. While we do not avoid a recession in our optimistic scenario, the recovery is significantly more vigorous (and is ultimately sustainable).

Table 4.6. Morgan Stanley optimistic case economic projections

	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Real GDP (% annual change)	2¾	3	–¼	1	3	3¾	3	3½
Real consumer spending (% annual change)	2¾	3¾	¾	¼	1¾	2¾	3	2¾
Employment (% annual change)	¾	1	–¼	¾	1¾	2¼	1½	¾
CPI inflation (% annual change)	2½	2¼	3½	1	2¾	2¼	2½	2
Output gap (%)	½	1½	–½	–1½	–1	½	¾	1½
Saving rate (%)	3¾	1½	0	2	2¾	3½	3	2¼
Unemployment rate (%)	5½	5¼	6	5¾	4½	3¾	3	3
Productivity growth (% annual change)	2	1¾	¼	¼	1¼	1¼	1¾	1¾

Note: The output gap is calculated mechanically using an HP filter on real GDP (including our ‘optimistic’ forecasts).

Sources: ONS; Morgan Stanley Research. 2008–09 onwards are Morgan Stanley Research estimates.

Supply-side responses to some of the huge shocks we have seen may be both pro-growth and supportive of corporate profits. Those huge shocks include: (1) a big fall in equity values; (2) a big fall in house values; (3) a perception by many households that their debt is too big relative to their income; and (4) a potential overhang of some types of residential properties, meaning that construction investment will be low for some years.

Factors 1 and 2 lower household wealth. With household wealth a lot lower, we should expect two things: higher household saving and higher labour supply (factor 3 generates a similar response). Higher saving is negative for growth in the near term (we cannot expect other components of spending to adjust upwards to offset it). But the impact of more labour supply – as people need to work more to replace lost wealth – is ultimately unambiguously positive for economic activity and for corporate profits. It means that the

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capital-labour ratio is lower (boosting the return to capital, reducing real wages and encouraging more investment).

Factor 4 implies that residential construction will be much reduced. The resources used there will be available elsewhere and land prices will likely be lower than they otherwise would have been. These are not negative factors for the (ex-construction) corporate sector.

5. The fiscal rules and policy framework

Robert Chote, Carl Emmerson and Gemma Tetlow (IFS)

Summary

- In 1997, the government promised to abide by two fiscal rules that constrain how much it borrows and to what purpose. It claims to have met them over an economic cycle running from 1997 to 2006, but they had already lost credibility as a meaningful constraint on policy prior to the current crisis.
- Having overachieved the golden rule by delivering an average current budget surplus of £2 billion a year over the last economic cycle, Labour now expects an average current budget deficit of £37 billion a year over the next. This would be a much larger average deficit than in either of the two cycles under the previous Conservative government.
- The headline measure of public sector net debt could rise to around 170% of national income now that RBS is to be treated as a public corporation – or to around 240% if Lloyds Banking Group is treated similarly. But whether these investments will increase or reduce debt in the long term remains uncertain.
- Given the scale of the shock to the public finances resulting from the credit crunch, the government has sensibly decided to suspend the rules rather than taking the draconian decisions necessary to adhere to them.
- The government’s ‘temporary operating rule’ offers it considerable flexibility in setting fiscal policy, but it may not be seen as much of a constraint on tax and spending decisions. In practice, the verdict of the financial markets may be the main constraint and the government’s loss of credibility in the past may make a rise in its borrowing costs more likely.
- The government should consider adopting a target for future debt servicing costs and other commitments imposed on future taxpayers, rather than the stock of public sector net debt. The government could also commit to overachieving the golden rule by an amount sufficient to ‘pre-fund’ any increase in public sector pension costs that its actions impose on future taxpayers.
- The government should consider creating a properly funded independent body, with access to all the information currently available to the Treasury, to prepare fiscal forecasts and recommend to the Chancellor what fiscal tightening or loosening would be consistent with meeting the fiscal rules.

5.1 Introduction

On coming to power in 1997, Chancellor Gordon Brown set himself two fiscal rules that were supposed to limit how much the government could borrow and to what purpose. The government claims to have met both rules over the last economic cycle, but now concedes that it is on course to miss them by a large margin over the next cycle as a result of the credit crunch. For the time being, the government will be suspending its previous fiscal rules and instead be adhering to a temporary operating rule. The government needs

to consider carefully how best it can inspire confidence in its fiscal management while the rules are suspended and then whether or not they should be readopted in their original form. In addressing both issues, it is important for the government to recognise that public confidence in the rules as a meaningful constraint on its tax and spending decisions had already evaporated before the current crisis erupted.

The government currently argues that the last economic cycle ran from 1997–98 to 2006–07. It complied with the rules over this period because of the substantial fiscal tightening that Mr Brown inherited, implemented and extended over Labour's first term in office. This created a cushion just sufficient to outweigh the impact of repeated over-optimism in his forecasts for public borrowing and debt in Labour's second term. By the middle of this decade, the room to manoeuvre against the fiscal rules had been greatly eroded, and the likelihood of a breach of first the golden rule and then the sustainable investment rule became significant.

The perception that Mr Brown 'moved the goalposts' to ensure that the rules would be met – and his decision not to address the over-optimism of his forecasts through tax-raising measures and cuts in spending plans until just after the 2005 election – undermined the credibility of the rules. In its 2007 New Year survey of the views of independent economists, the *Financial Times* concluded that 'Almost none use the chancellor's fiscal rules any more as an indication of the health of the public finances'.¹

The November 2008 Pre-Budget Report (PBR) insisted that the government's 'fiscal policy objectives remain unchanged' and that it would merely 'depart temporarily from the fiscal rules until the global shocks have worked through the economy in full'. In the meantime, Chancellor Alistair Darling replaced them with a much less restrictive 'temporary operating rule' under which the government only promises to strengthen the public finances over the medium term.

Section 5.2 assesses Mr Brown's two fiscal rules, and the extent to which the government complied with them. The new 'temporary operating rule' is discussed in Section 5.3. In Section 5.4, we set out a proposal for an improved fiscal framework that would have the virtue of maintaining the many sensible features of Mr Brown's fiscal framework while further enhancing transparency and credibility. Section 5.5 concludes.

5.2 Gordon Brown's fiscal rules

Even in opposition, Mr Brown wanted to persuade voters that he would be a fair and prudent steward of the public finances. He saw a commitment to broad objectives for fiscal policy, operationalised through specific rules against which performance could be judged, as the best way to achieve this. The two specific rules that he adopted were the golden rule and the sustainable investment rule:

- The golden rule required the public sector to borrow only what it needed to pay for capital investment, and to finance its remaining current spending from tax and other revenues. In other words, the government had to keep the current budget (revenues minus current spending) in balance or in surplus. The rule had to be met on average over the ups and downs of the economic cycle rather than every year.

¹ 'Cut spending to reduce borrowing', *Financial Times*, 2 January 2007 (<http://www.ft.com/cms/s/683400d2-9a05-11db-8b6d-0000779e2340.html>).

- The sustainable investment rule required the government to keep the public sector's debt (net of its short-term financial assets) at a 'stable and prudent' level. This was defined as less than 40% of national income (GDP) at the end of every financial year of the economic cycle that the Treasury now estimates to have run from the first half of 1997 to the end of 2006.

We now describe each rule, and its operation, in more detail.

The golden rule

The golden rule was designed to help achieve intergenerational fairness by ensuring that the current generation of taxpayers pay only for the public spending from which they benefit. It was also intended to remove a possible bias against investment if and when public spending has to be restrained. In such a situation, it might be more tempting to cut capital rather than current spending because it normally takes longer for voters to feel the effects of cuts in capital spending on the quality of public services.² Requiring the golden rule to be met only on average over the economic cycle – rather than every financial year, for example – allows fiscal policy to 'support monetary policy'. In other words, it makes it less likely that fiscal policy will have to be tightened as monetary policy is loosened (not that this is always undesirable).³

In the next two subsections, we focus on two questions that arise in relation to the objectives of the golden rule:

- Does allowing the government to borrow only to finance capital investment in fact achieve intergenerational fairness?
- Is it sensible to seek to apply the rule over an economic cycle with specific start and end dates?

We then examine the Treasury's compliance with the golden rule over the period since Labour came to power in May 1997.

Intergenerational fairness

For a number of reasons, balancing the current budget as defined for the purposes of the golden rule will not necessarily achieve intergenerational fairness. In particular, it is not clear that, just because tax revenues happen to equal current spending, each generation is paying for the public spending from which it benefits.⁴ One obvious example is that debt interest payments might not fall perfectly on the generations that benefit from the debt-financed expenditure. Another example is that the pay-as-you-go nature of many public sector workers' pensions means that these score as current expenditure when the pensions are paid to retirees, which will generally not be when the benefits from the services provided were delivered. Even if a balanced current budget could be relied upon to deliver intergenerational fairness, that is not what Labour's variant of the rule

² For a discussion, see HM Treasury, *Fiscal Policy: Current and Capital Spending*, London, 1998 (<http://www.hm-treasury.gov.uk/d/530.pdf>).

³ The extent to which fiscal policy has been 'coordinated' with monetary policy since 1997 is discussed in section 2.7 of R. Chote, C. Emmerson, C. Frayne and G. Tetlow, 'The public finances under Mr Brown', in R. Chote, C. Emmerson, A. Leicester and D. Miles (eds), *The IFS Green Budget: January 2007*, IFS Commentary 102 (<http://www.ifs.org.uk/budgets/gb2007/07chap2.pdf>).

⁴ For a detailed discussion, see section 3.2 of R. Chote, C. Emmerson and G. Tetlow, 'The fiscal rules and policy framework', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap3.pdf>).

required. Instead, it said the current budget should be in balance or in surplus. But the concept of intergenerational fairness underpinning the golden rule suggests that we should be as concerned if today's taxpayers pay too much for current spending as if they pay too little.

Therefore the golden rule is not an optimal mechanism to achieve intergenerational fairness. But it may well still have value as a rough-and-ready rule of thumb that is reasonable to use as a guide in most, but not all, time periods. In practice, it may not be worth sacrificing the transparency of the rule to get closer to optimality.

Taking account of the economic cycle

There is certainly a powerful case for taking some account of the condition of the economy in assessing the appropriate level of the current budget balance (or any other measure of the fiscal position) at any given time. Government revenues and spending are both directly influenced by fluctuations in income, spending, transactions and employment. Economic activity can be thought of as fluctuating around a rising sustainable level consistent with stable inflation. When the economy is weak and activity is below the sustainable level (i.e. there is a negative output gap), tax revenues will be depressed temporarily and the government is likely to have to spend more on transfer payments for those not in paid work. This will tend to push the current budget towards deficit. Conversely, when the economy is above trend output, the budget will tend towards surplus.⁵ Broadly speaking, it might be reasonable to expect cyclical deficits and surpluses to sum to zero over the course of a single symmetric economic cycle. So, if tax and spending decisions also succeed in keeping the structural position in balance on average, the golden rule would be expected to be met.

Allowing borrowing to rise and fall through the economic cycle acts as an 'automatic stabiliser'. The strength of the automatic stabilisers will depend on the size of the public sector and the progressiveness of the tax, tax credit and benefit system, so it may not be optimal from a stabilisation perspective. However, there would be nothing to stop the Treasury from making additional discretionary policy changes in either direction – as it did with the 13-month, £12½ billion, VAT cut announced in the 2008 PBR that was implemented from 1 December 2008 (see Chapter 10). These would, however, need to be balanced out on average over the economic cycle. There is also nothing to stop the government making changes to the tax, tax credit and benefit system in order to change the magnitude of the automatic stabilisers.

But it is one thing to argue that the government should aim to balance the structural current budget over some appropriate time horizon; it is another to argue that it should explicitly date a particular cycle and aim for a balance or surplus on average over that

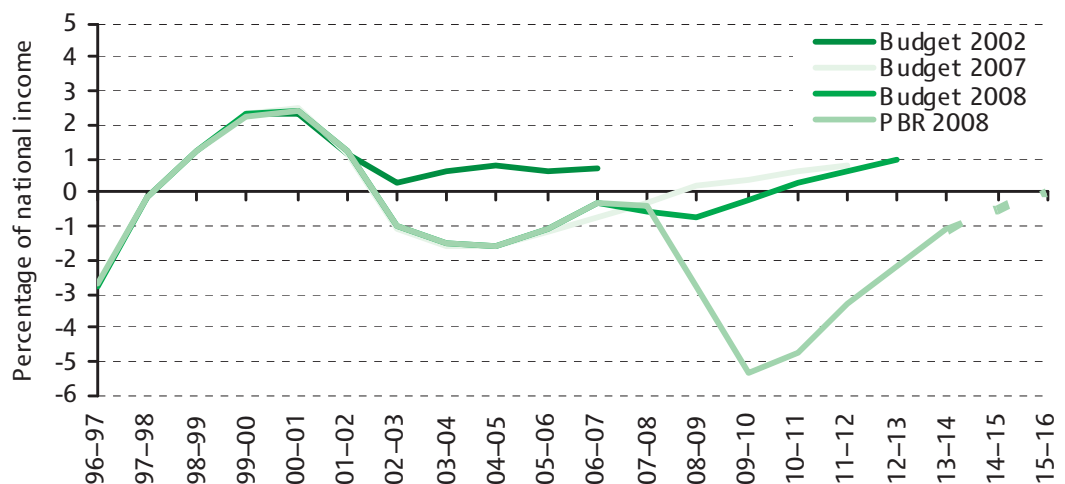
⁵ According to Treasury estimates, if national income were to rise by 1% relative to its sustainable level, current spending would be expected to fall by about 0.5% of national income while current receipts would be expected to rise by about 0.2% of national income over the following two years. The net effect is to increase the current budget surplus by about 0.7% of national income. As taxes and spending both equal roughly 40% of the economy, if national income were to rise by 1%, both revenues and spending would fall by about 0.4% of national income when compared with the size of the economy (assuming there were no change in their cash value). Treasury estimates suggest that, in addition to this 'denominator' effect, over the following two years we would see spending on transfer payments and debt interest payments drop by 0.1% of national income and revenues rise by 0.6% of national income. Adding the two effects together, after a 1% rise in national income relative to its sustainable level, we would see current spending fall by about 0.5% of national income while current receipts rise by about 0.2% of national income over the following two years. The net effect is to increase the current budget surplus by about 0.7% of national income. See page 18, table 2.K of S. Farrington, J. McDonagh, C. Colebrook and A. Gurney, 'Public finances and the cycle', Treasury Economic Working Paper 5, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_publicfinances.htm).

period. First, it is not possible to identify accurately ‘on-trend’ points and the output gap at any given time.⁶ Second, picking any fixed period over which to judge the rule means that the amount the government can borrow towards the end of the period is determined by what it has borrowed earlier on. Policy becomes backward-looking as the Chancellor is potentially constrained to compensate for the policy and forecasting errors of the past rather than setting what is necessarily the most sensible policy looking forward.

Assessing compliance with the golden rule

In understanding how Mr Brown chose to interpret and apply the golden rule in practice over recent years, it is important to remember that almost all the Treasury’s forecasts for the public finances since 2001 have been overoptimistic and have hence been revised down in successive Budgets and PBRs (indeed, the only recent Budget not to have done this was the Budget 2006 projection for the strength of the public finances in 2006–07⁷). In particular, following the stock market decline between 2000 and 2002, tax revenues from the financial sector were much weaker than had been expected by the Treasury. The latest succession of downgrading of fiscal projections, in the 2007 PBR, the 2008 Budget and the 2008 PBR, again in part reflects downward revisions to expected revenues from the financial sector.

Figure 5.1. Treasury current budget balance forecasts



Sources: Successive Budgets and 2008 PBR; all documents available at http://www.hm-treasury.gov.uk/bud_bud08_index.htm.

Figure 5.1 shows the Treasury’s forecasts for the structural current budget balance from Budget 2002 (before the forecasts first started to prove significantly overoptimistic), from Budget 2007 (before the current credit crunch began), from Budget 2008 and from the latest PBR. It shows that in 2002, the Treasury expected current budget surpluses over the entire medium-term forecasting horizon, clearly implying that the golden rule would be met over any economic cycle of plausible duration. However, in 2002–03, the

⁶ This is perhaps best demonstrated by the Treasury’s announcement in July 2005 that, in the light of new evidence, the then current economic cycle was believed to have begun eight rather than six years earlier. See HM Treasury, *Evidence on the UK Economic Cycle*, July 2005 (http://www.hm-treasury.gov.uk/d/economic_cycles190705.pdf).

⁷ See page 13, chart 2.D of HM Treasury, *End of Year Fiscal Report*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_endofyear_403.pdf).

current budget moved sharply into deficit. The Treasury's expectations of a swift return to the black were repeatedly frustrated and by Budget 2008 a current budget surplus was not expected by the Treasury until 2010–11: an expected run of eight years of successive deficits. Since then, things have deteriorated much further and the Treasury is now not expecting balance on the current budget until 2015–16: two years beyond the end of its normal medium-term forecasting horizon. This would mean 13 years of deficits following four years of surpluses.

As Mr Brown's hopes of continued surpluses were dashed and deficits began to mount up, the exact method of calculating the cumulative budget balance and the precise dating of the cycle became increasingly important in determining whether or not the golden rule was on course to be met – and, if so, with what degree of comfort. Changes were made that increased the extent to which the public finances could be claimed to be on course to meet the golden rule:⁸

- First, the methodology employed to calculate cumulative current budget surpluses that Mr Brown reported in his Budget Speeches was modified.
- Second, the estimated start date for the economic cycle was moved by two years at precisely the point at which, without this change, the government looked on course to break rather than meet the golden rule.
- Third, in evidence to the Treasury Select Committee, Treasury officials left open the option of dropping the approach of counting the last year of one economic cycle as the first year of the next economic cycle.

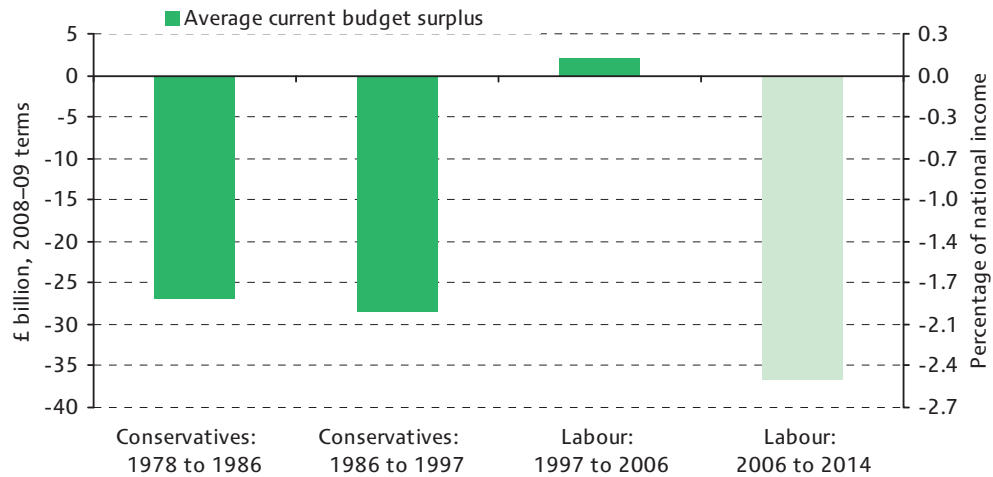
All of these changes could be justified in their own right. But the fact that they all made it easier to meet the golden rule at convenient times undermined the credibility of the policy framework and created suspicion that Mr Brown would 'move the goalposts' rather than face the embarrassment of missing this target.

Over the economic cycle that the Treasury estimates ran from 1997–98 to 2006–07, there was a cumulative surplus on the current budget and therefore the golden rule was met over this period. An alternative possibility is that this economic cycle started in 1999–2000, as the Treasury believed up until July 2005 and is also implied by the statistical filter set out in Table 4.3, and still closed in 2005–06. Ironically, if this were the case, then the golden rule would still have been met and therefore, with the benefit of hindsight, the revision to the start date of the economic cycle did not make the difference between missing and meeting the golden rule over this cycle.

The average surplus over the 10-year cycle was 0.14% of national income per year, which is equivalent to £2 billion per year in 2008–09 terms. While this is an extremely small margin of error, it is in marked contrast to the experience under the Conservatives. Over the economic cycles judged by the Treasury to have run from 1978 to 1986 and from 1986 to 1996, the golden rule – had it been in place – would have been missed by £26.8 billion per year and £28.4 billion per year in today's terms, respectively. This is shown in Figure 5.2.

⁸ For a detailed discussion, see section 3.2 of R. Chote, C. Emmerson and G. Tetlow, 'The fiscal rules and policy framework', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap3.pdf>).

Figure 5.2. Meeting or missing the golden rule?



Notes: Figure shows cumulative current budget surplus as a share of national income over 1978–79 to 1986–87, 1986–87 to 1997–98, 1997–98 to 2006–07 and 2006–07 to 2013–14. On the left-hand axis, this is expressed in 2008–09 terms using the 2008 PBR projection of GDP of £1,463 billion.

Source: HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls).

Looking forwards, the current budget is expected by the Treasury to be more in deficit on average over the next economic cycle than it was over the two economic cycles under the Conservatives. The 2008 PBR forecast implies an average current budget deficit over the new economic cycle, thought by the Treasury to run from 2006 to 2014, of £37 billion per year in 2008–09 terms. As will be discussed in Section 5.3, such an out-turn would no longer represent a breach of the Treasury’s fiscal rules as these have been suspended. Moreover, even if the current budget had evolved as expected in Budget 2002, the large deterioration now expected over the next few years would still have brought about a sizeable current budget deficit. In this scenario, it would still have been more sensible to suspend the golden rule over the next cycle than to implement the tax increases and/or spending cuts necessary to expect to meet it over that period.

The sustainable investment rule

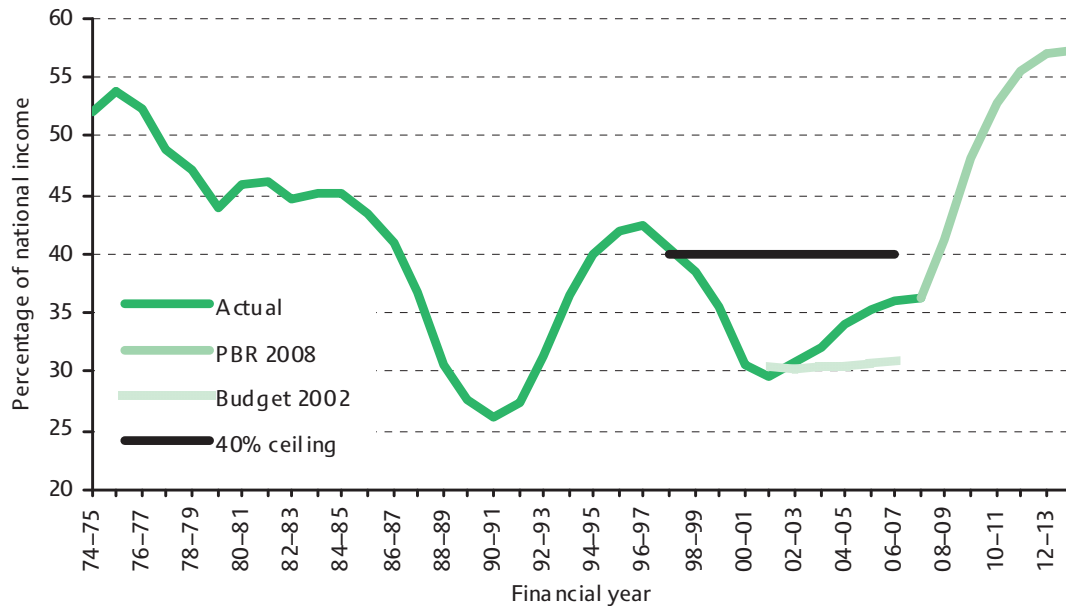
The sustainable investment rule stated that the public sector’s debt (net of its short-term financial assets, such as foreign exchange reserves) should be kept at a ‘stable and prudent’ level. More precisely, over the economic cycle that the Treasury estimates ran from 1997–98 to 2006–07: ‘To meet the sustainable investment rule with confidence, net debt will be maintained below 40 per cent of GDP in each and every year of the current economic cycle’.⁹

As with the golden rule, the sustainable investment rule was met over the period from 1997–98 to 2006–07 but has now been suspended. Figure 5.3 shows that in each year of the economic cycle that the Treasury estimates ran from 1997–98 to 2006–07, public sector net debt was below 40% of national income (with the exception of 1997–98, but the incoming new Labour government had limited opportunity to reduce debt in that financial year). The projection from Budget 2002 was that public sector net debt would

⁹ Page 20, paragraph 2.13 of HM Treasury, *2007 Pre-Budget Report and Comprehensive Spending Review*, October 2007 (http://www.hm-treasury.gov.uk/pbr_csr07_index.htm).

remain only slightly above 30% of national income. Instead, debt increased throughout Labour's second term, and by the end of the economic cycle in 2006–07 it had reached 36.0% of national income. Since then, it has climbed further, and the 2008 PBR forecast that debt would rise above 40% of national income this year (41.2%) and continue rising sharply, peaking at 57.4% of national income in 2013–14. This would be the highest level of public sector net debt in 40 years. Furthermore, the measure of public sector net debt presented in Figure 5.3 excludes the impact of recent financial sector interventions – described in more detail later in this section.

Figure 5.3. Treasury forecasts for underlying public sector net debt



Sources: HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls); HM Treasury, *Budget 2002*, April 2002 (http://www.hm-treasury.gov.uk/bud_bud02_index.htm); HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

As was the case with the current budget balance and the golden rule, it would be difficult to argue that the Treasury should have conducted fiscal policy in a way that would have avoided the situation where the suspension of the sustainable investment rule was now the most appropriate course of action. Even if public sector net debt had remained at around 30% of national income – as forecast in Budget 2002 – the expected 21% of national income increase in underlying public sector net debt between 2007–08 and 2013–14 would still have pushed debt significantly above the 40% of national income ceiling set by the sustainable investment rule.

Given that debt is forecast to peak considerably above the previous ceiling of 40% of national income, to what extent should we simply continue to carry this debt forward and to what extent should we aim to bring it back down? Governments take on debt for much the same reason that individuals and firms do – to smooth their spending. Whilst the biggest changes in government debt levels in this country have been driven by the need to finance the two World Wars (see Figure 2.5), in more normal circumstances there are three main reasons why governments might take on debt:

- First, it can be both fair and efficient to smooth the cost to taxpayers of public spending that yields a flow of (typically non-financial) benefits into the future.

- Second, it may make sense to smooth payments for current spending over the ups and downs of the economic cycle to help stabilise activity and alleviate pressure on monetary policy.
- Finally, and less commendably, governments may seek to push the costs of current spending onto future taxpayers and future governments for political advantage, because they believe that voters are short-sighted.

Why impose a debt ceiling?

When does debt – taken on for any or all of these reasons – become ‘unsustainable’? As the Treasury argues, ‘There are many possible definitions of sustainability. One definition is that a government should be able to meet its obligations if and when they arise in the future’.¹⁰ As debt increases, the cost of servicing it also increases. In principle, the cost could rise so high that the economy produces too little output to meet it. But, in practice, sustainability becomes a political judgement long before then: the ability of a government to meet the obligations it undertakes or inherits will depend on the willingness of future taxpayers to provide the revenue or to sacrifice other spending.

As experience in various emerging market countries has shown over the decades, *in extremis* governments may find it more attractive to lift the burden of meeting their financial obligations from taxpayers and concentrate it instead on their domestic and/or international creditors through rescheduling, default or inflation. Conscious of this danger, investors will become more reluctant to lend to a government if its policies look likely to impose a politically unacceptable burden on future taxpayers. By increasing interest rates and reducing economic growth, such investor fears can become self-fulfilling by further increasing the government’s obligations and simultaneously shrinking the resources available to meet them. Even in the absence of significant default risk, interest rates may rise as government debts increase, weakening growth by ‘crowding out’ private investment.

Given these dangers, it may be sensible for a government to make a clear public commitment to limit its obligations to some level that would not (under plausible economic circumstances) impose an unacceptable burden on future taxpayers. As Treasury officials have argued, ‘Committing to a clear benchmark level of debt helps to anchor expectations and helps avoid self-fulfilling losses of credibility in fiscal policy’.¹¹

The height of the debt ceiling

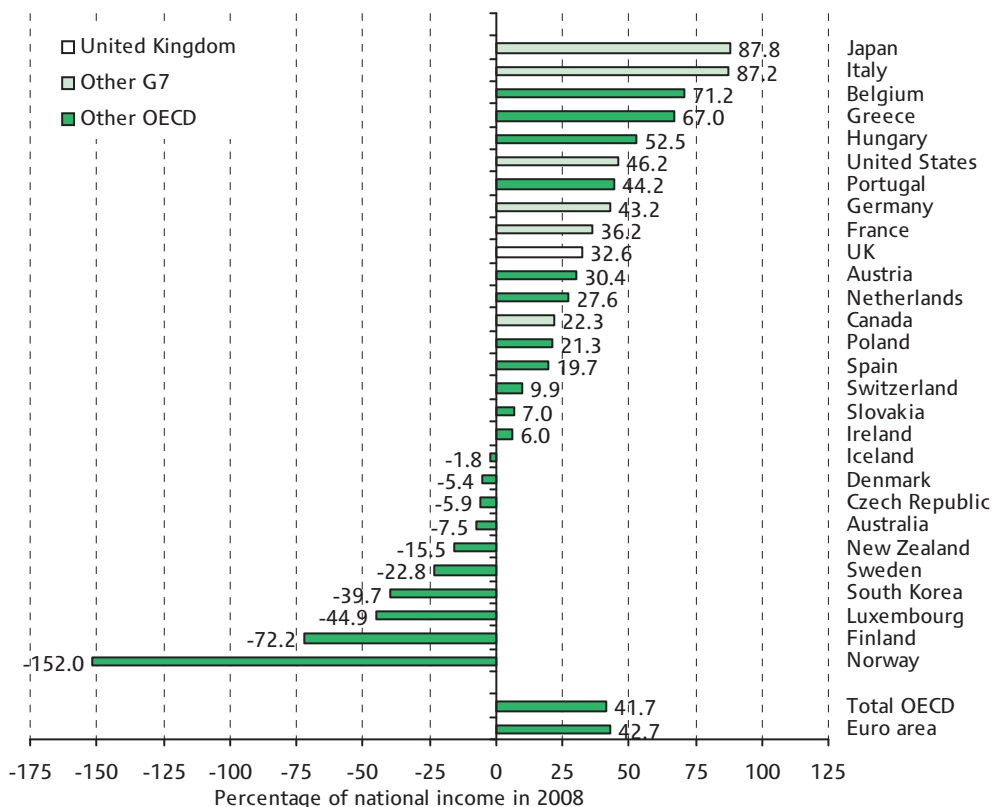
Choosing where to set the debt ceiling is no easy task. For one thing, taxpayers’ willingness to meet the obligations implied by past policy decisions may depend on a whole host of factors: the existing tax burden they face, the size of the debt interest bill, the reason the debt was incurred, the identity of the creditors and so on. Attempts have been made to infer an optimal debt ratio from comparisons with the debt/equity ratios prevailing in the private sector and from theoretical and empirical analyses of the relationship between debt levels, interest rates and economic growth rates. None has given a precise or robust result.

¹⁰ Page 19 of HM Treasury, *Long-Term Public Finance Report: An Analysis of Fiscal Sustainability*, December 2006 (http://www.hm-treasury.gov.uk/prebud_pbr06_adlongterm.htm).

¹¹ R. Woods, ‘The role of public debt in the UK fiscal rules’, paper presented at the 6th Banca d’Italia Public Finance Workshop, 2004 (http://www.bancaditalia.it/studiricerche/convegni/atti/publ_debt/session2/333-366_woods.pdf).

It certainly seems implausible to suggest that a debt ratio of up to 40% of national income would be sufficient to trigger a sovereign debt crisis, especially for a developed country such as the UK that has long been able to borrow in its own currency with relative ease. (Box 7.1 notes that there has been a rise in some market measures of the probability that the UK government will default on its debt, as the outlook for the public finances has worsened. But it argues that this overstates any change in investors' true assessment of the probability of default.) The current government appeared to have chosen the 40% ratio in effect as a commitment not to allow debt to rise above the level it had inherited. Assuming that the golden rule was met, a debt ceiling of 40% of national income was also sufficiently high to permit a higher level of public sector net investment in the long term than Labour inherited.

Figure 5.4. General government debt ratios in OECD countries in 2008



Source: Annex table 33 of OECD, *Economic Outlook No. 84*, November 2008 (http://www.oecd.org/document/18/0,3343,en_2649_33733_20347538_1_1_1_1,00.html).

The Treasury estimates that public sector net debt will be 41.2% of national income this year (i.e. it would have breached the 40% ceiling had this still been in place). Figure 5.4, which uses a different definition of debt to facilitate international comparison, shows that, with the notable exception of Canada, UK government debt is low relative to the other G7 countries. But there are other industrial countries with much stronger net debt positions, including Australia, New Zealand and the Scandinavian countries. Ten out of the 28 OECD countries shown in the graph have more financial assets than debt – for example, Norway (to smooth spending financed by its oil revenues) and South Korea (which has built up enormous foreign exchange reserves to try to limit the rise in its exchange rate).

So what factors might influence the UK's choice of debt ceiling?

- First, the desired debt ratio will depend on the desired level of public sector net investment over the long term. If we were to assume that the golden rule was met exactly, whole-economy inflation is 2½% a year and the economy grows in real terms by 2½% a year, then the government could sustain public sector net investment of 2% of national income a year while keeping public sector net debt at 40% of national income.¹² If we believe that public sector net investment should be higher than 2% of national income in the long term, this argues for raising the debt ceiling above 40% unless the golden rule was to be consistently overachieved or cash growth in the economy exceeds 5% a year. Conversely, if we wished to invest less than 2% of national income, the debt ceiling could be lowered.
- Second, a Chancellor might move the debt ceiling if he or she believed that the underlying level of current spending was likely to rise (or fall) at some point in the future. This could limit economically costly variation in tax rates. This could be done without altering the level of investment by deliberately over- (or under-) achieving the golden rule for a while and temporarily reducing (or increasing) the debt ceiling. Some economies are currently deliberately pursuing low or negative net debt positions because they believe that the ageing of their populations will require more public spending on the elderly in future decades. By running tight fiscal policies today, and giving themselves greater scope to borrow more in the future, they can limit future increases in tax rates and the associated disincentives to work and save.

From the UK's perspective, in March 2008 the Treasury estimated that on existing policies, public spending would, as a result of changing demographics, rise from 40.5% of national income last year to 44.5% in 2057–58 – an increase of 4.0% of national income or almost £60 billion in today's terms.¹³ Individuals are likely to wish to smooth their consumption in the face of an expected rise in tax rates to pay for these increases in spending, but some will be more aware of the necessary adjustments and better placed to make them at low cost than others. On these grounds, it may be thought preferable for the state to help make the adjustment by increasing tax rates now (aiming for a lower debt-to-national-income target) to reduce the increase required in the future (when the debt ratio would be allowed to rise again).

- Third, the higher the cost of financing debt, the less borrowing the government would want to do. In part, the financial cost will depend on the market assessment of the creditworthiness of the UK relative to other countries. Looking at the change in net debt over the period from 1996 to 2007, the majority of OECD countries have reduced their net debt by more than the UK did over this period (see Table 2.1). This suggests that many countries are trying to reduce their level of net debt, whereas in the UK Labour has only sought to prevent it from rising. Similarly, neither the opposition Conservative nor Liberal Democrat Party has set out policies to achieve anything significantly different. The fact that many countries have done more to reduce their net debt also suggests why – going forwards – it might be desirable for UK policymakers to try to bring debt back down as a share of national income rather than simply aiming to stabilise it at a higher level. Moreover, the trend of the UK's

¹² Debt interest payments would also not rise as a share of national income as long as nominal interest rates were not above 5% p.a.

¹³ Source: Table 4.1, page 36 of HM Treasury, *Long-Term Public Finance Report: An Analysis of Fiscal Sustainability*, March 2008 (http://www.hm-treasury.gov.uk/d/bud08_longterm_586.pdf).

debt position showing less of an improvement, or more of a deterioration, relative to other countries is forecast by the OECD to continue. It forecast that the UK's debt will increase by 10.5% of national income between 2008 and 2010 and that of the 28 countries in Figure 5.4, only Ireland (13.9%) and the US (11.6%) will have a bigger increase over this period. In contrast, the majority of these 28 countries are forecast to have an increase in debt of 3% or less. Relative to the G7 countries, the UK is forecast to be at a similar level to both France and Germany by 2010.

Other liabilities: public-service pensions and PFI contracts

As well as future debt repayments due to current borrowing, the government has made promises of other future payments in a number of ways. One example is future payments arising from many public sector workers' pensions, including those in the NHS, the armed forces, teachers, civil servants, police, firefighters and the judiciary. Another example is future payments made under Private Finance Initiative (PFI) contracts, under which private firms undertake some capital spending on behalf of the public sector, with the public sector paying private firms a rental price for use of a capital asset, in addition to payments for any current goods and services, that the private sector delivers. Despite not appearing in the headline figures for debt, these future payments are important as they will reduce the amount of income that future generations will be able to spend as they choose. The opposition Conservative Party has argued for 'A broader measure of the sustainability of the public finances, including all future government liabilities and the pressures from an ageing population'.¹⁴ This is to alleviate concerns about the size of the liabilities that are not counted in public sector net debt and therefore were not constrained (at least in the short and medium term) by the sustainable investment rule.

Arguably more important than the level of these liabilities are whether or not the total indebtedness of the public sector is increasing and the appropriateness of the financing tool used. Financing this spending through means that do not immediately score against public sector net debt would be inappropriate if it is done in order to keep the headline net debt figure low rather than for reasons of economic efficiency. For example, in last year's Green Budget, Bozio and Johnson put forward the argument that better value for money for the taxpayer might be achieved through a combination of less generous pensions for public sector workers compensated in part with higher pay.¹⁵

How large are these commitments that are not included in public sector net debt (PSND)? Due to intrinsic differences in their nature, comparable figures (based on consistent underlying assumptions) for different components of public sector indebtedness are not available. Bearing in mind this important caveat, Table 5.1 compares the size of PSND with official estimates of public sector pension liabilities and an estimate of the value of the future flow of payments to PFI providers under contracts already signed (which assumes that the private sector providers do fulfil the terms of these contracts). Quantitatively speaking, compared with the latest official measure of PSND, PFI liabilities and public sector pension liabilities were significant in size, with official estimates suggesting that the latter are larger than net debt itself. Total liabilities of the public

¹⁴ See Conservative Party, *Reconstruction: Plan for a Strong Economy – Plan for Change*, September 2008 (http://www.conservatives.com/~media/Files/Downloadable%20Files/Reconstruction_-_Plan_for_a_strong_economy.ashx?dl=true).

¹⁵ A. Bozio and P. Johnson, 'Public sector pay and pensions', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap8.pdf>).

sector from these three sources are therefore estimated to be around 90% of national income.¹⁶

Table 5.1. Estimated value of various future public sector obligations based on official estimates

	£ billion	% of GDP
(1) Public sector net debt, March 2008	526.8	36.5
(2) Estimated unfunded public sector pension liabilities, March 2006 (official estimate)	≈650	≈45
(3) Estimated future PFI payments, signed current deals, October 2008 (IFS estimate based on official numbers)	≈130	≈9
(4) Total (rows 1, 2 and 3)	≈1,300	≈90

Sources: Public sector net debt from tables A7 and A8 of HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls). Public sector pension liabilities from page 38, box 4.3 of HM Treasury, *Long-Term Public Finance Report: An Analysis of Fiscal Sustainability*, March 2008 (http://www.hm-treasury.gov.uk/d/bud08_longterm_586.pdf). Estimated future PFI payments from page 37, table 2.6 of HM Treasury, *2008 Pre-Budget Report: The Economy and Public Finances – Supplementary Material*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_chartstables_501.pdf) with payments discounted to 2008–09 by future nominal national income (assuming real growth of 2½% p.a. and economy-wide inflation of 2.7% p.a. from April 2014 onwards).

There are two key differences between both estimated public sector pension liabilities and estimated future PFI payments and conventional public sector net debt. First, both will be sensitive to the choice of discount rate. For example, the official estimated liabilities of unfunded public sector pension schemes increased from £530 billion in March 2005 to £650 billion in March 2006, and £98 billion of this £120 billion increase was due to a lower discount rate rather than an actual increase in the expected future annual payments.¹⁷ Second, governments might be able to reduce these future payments. In the case of public sector pension liabilities, this could be done by further reducing the generosity of future accrual of public sector workers’ pension rights. However, such a change could have implications for other components of the remuneration package required to attract and retain public sector workers of the desired quality and motivation. In the case of PFI contracts, a future government might well be able to negotiate a lower payment from the public purse in return for a reduction in services provided, in particular where these are for current rather than capital goods.

Scheduled changes to the accounting standards applied by central government departments (a shift to International Financial Reporting Standards) might affect the treatment of some PFI deals. Budget 2007 stated that this change was to come in from April 2008, but Budget 2008 announced a delay to April 2009. Currently, of the £62.8 billion of capital value of live PFI deals signed up to November 2008, 40% is on the public sector balance sheet (£24.8 billion) and 60% is not on the public sector balance

¹⁶ A more detailed discussion of the treatment of both public sector pensions and PFI contracts in the public finances can be found in section 3.3 of R. Chote, C. Emmerson and G. Tetlow, ‘The fiscal rules and policy framework’, in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap3.pdf>).

¹⁷ Source: Page 38, box 4.3 of HM Treasury, *Long-Term Public Finance Report: An Analysis of Fiscal Sustainability*, March 2008 (http://www.hm-treasury.gov.uk/d/bud08_longterm_586.pdf).

sheet (£38.0 billion).¹⁸ The change in accounting rules might increase the proportion on the public sector balance sheet; but due to differences in accounting regimes, this might not affect the headline measure of public sector net debt.¹⁹

There are also a number of liabilities that would only be incurred should certain events occur ('contingent' liabilities). One that has been the subject of much discussion in recent years is Network Rail. If Network Rail got into serious trouble, it is likely that the Government would take greater control and that it would be reclassified from being part of the private sector to being part of the public sector for the purposes of the National Accounts (even if it were not formally renationalised). This would bring Network Rail's debt – which stood at £20.5 billion at the end of September 2008²⁰ – into public sector net debt.

Other liabilities: recent financial market interventions

The government's recent interventions in the financial sector have also led to a large increase in the headline measure of public sector net debt, with further large increases likely. However, these liabilities are intrinsically different from those arising from, for example, public-service pensions and PFI contracts, since the government's intention is to unwind these interventions once the current market turmoil has eased. They include the nationalisations of both Northern Rock and Bradford & Bingley and also the Bank Recapitalisation Fund that has injected £37 billion of equity financed by the taxpayer into Royal Bank of Scotland (RBS) and the new Lloyds Banking Group (comprising the recently merged Lloyds TSB and HBOS).

In the case of Northern Rock and Bradford & Bingley, the Office for National Statistics (ONS) has ruled that, as the public sector has the power to control the general corporate policy of the companies, their assets and liabilities should be moved onto the public sector balance sheet. Such a ruling does not require the organisation to be nationalised: the liabilities of both of these banks have been included in measures of net debt prior to their nationalisations.²¹

Moving these institutions onto the public sector balance sheet has a large impact on the headline measure of public sector net debt. This is because all of the liabilities are added to public sector net debt less any short-term financial assets, but not less any physical assets or long-term financial assets. The latter are particularly significant in the case of these institutions, which have large mortgage books that count as long-term financial assets. As shown in the top panel of Table 5.2, moving Northern Rock onto the public sector balance sheet added about £82 billion or 5.6% of national income to public sector

¹⁸ HM Treasury, 'PFI Signed Projects List – November 2008' (http://www.hm-treasury.gov.uk/ppp_pfi_stats.htm).

¹⁹ See pages 28–30 of House of Commons Treasury Committee, *The 2008 Budget*, Ninth Report of Session 2007–08, HC 430 (<http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/430/430.pdf>) and M. Kellaway, 'Private Finance Initiative and public debt', *Economic & Labour Market Review*, 2(5): 21–22, May 2008 (http://www.statistics.gov.uk/elmr/05_08/downloads/ELMR_May08_Kellaway.pdf).

²⁰ Source: <http://www.networkrail.co.uk/asp/5327.aspx>.

²¹ In the case of Northern Rock – which was nationalised on 17 February 2008 – this reclassification was made from 9 October 2007. This was the date that the loan was made from the Bank of England that required Northern Rock to obtain the Bank's permission to restructure, change its business, pay dividends, or acquire or dispose of certain types of assets. In the case of Bradford & Bingley, its inclusion on the public sector balance sheet is from 26 September 2008, whereas it was actually nationalised three days later (on 29 September 2008). For details of the ONS decision on Northern Rock, see M. Kellaway and H. Shanks, 'Northern Rock plc', NACC Decisions, 7 February 2008 (http://www.statistics.gov.uk/articles/nojournal/Rock_article.pdf), while IFS analysis can be found at http://www.ifs.org.uk/pr/Northern_Rock.pdf. For details of the ONS decision on Bradford & Bingley, see the ONS News Release at <http://www.statistics.gov.uk/pdfdir/cbb1108.pdf>.

net debt. The ONS has not yet been able to complete the necessary calculations to include the impact of Bradford & Bingley on public sector net debt, but Bradford & Bingley's last interim reporting statement suggests that this is likely to add a further £41–51 billion to public sector net debt.

Table 5.2. Actual and possible impact on public sector net debt from recent financial sector interventions

	Amount paid for acquisition	Equity acquired	Gross liabilities net of short-term financial assets	
			£bn	% of GDP
<i>Nationalisations</i>				
Northern Rock	To be decided	100%	81.9	5.6
Bradford & Bingley	To be decided	100%	41–51	2.8–3.5
<i>Bank Recapitalisation Fund</i>				
Royal Bank of Scotland	£15bn ord. shares £5bn pref. shares	63%	Up to £1,845	Up to 125%
Lloyds Banking Group	£13bn ord. shares £4bn pref. shares	44%	Up to £1,017	Up to 70%

Sources: Gross liabilities net of short-term financial assets: Northern Rock for 2008Q3 from table PSF1 of Office for National Statistics, *First Release: Public Sector Finances, November 2008*, 18 December 2008 (<http://www.statistics.gov.uk/pdfdir/psf1208.pdf>); Bradford & Bingley from Interim Results for half year ended 30 June 2008 (<http://www.bbg.co.uk/bbg/ir/news/releases/groupnews/gn2008/2008-08-29/2008-08-29.pdf>); Royal Bank of Scotland from Interim Results for half year ended 30 June 2008 (<http://www.investors.rbs.com/downloads/interim2008.pdf>); Lloyds TSB from Interim Results for half year ended June 2008 (http://www.investorrelations.lloydstsb.com/ir/company_reports_page.asp#2008); HBOS from Interim Results for half year ended June 2008 (http://www.hbosplc.com/home/includes/RNS_Interims_2008.pdf). Amount paid, and equity acquired, by the Bank Recapitalisation Fund from statement by Chancellor of the Exchequer Alistair Darling to the House of Commons on financial markets, 13 October 2008 (http://www.hm-treasury.gov.uk/statement_chx_13_10_08.htm).

The Bank Recapitalisation Fund is also yet to have any impact on public sector net debt. However, the ONS has recently stated: ²²

As part of its plans to recapitalise the banking sector, HM Treasury has acquired 57.9 per cent of the Royal Bank of Scotland's issued ordinary share capital, at a cost of almost £15bn. This gives HM Treasury control over more than half of the voting shares which is sufficient to move RBS into the public sector. HM Treasury has also acquired £5bn of new preference shares issued by the bank. Both transactions took place on 1 December, and will therefore feed into the December PSF [public sector finances]. ONS will publish a formal classification decision relating to RBS when it has completed its analysis of all the relevant documentation.

RBS has assets and liabilities of around £1,845 billion, which is 125% of national income. Therefore, depending on how many of the assets are either physical assets or long-term financial assets, the inclusion of RBS on the public sector balance sheet could lead to an enormous increase in the headline measure of public sector net debt. The new Lloyds Banking Group is also large, with assets and liabilities totalling around £1,017 billion, equivalent to 70% of national income. However, in this case it remains to be seen

²² Source: Page 6 of Office for National Statistics, *First Release: Public Sector Finances, November 2008*, 18 December 2008 (<http://www.statistics.gov.uk/pdfdir/psf1208.pdf>).

whether or not the ONS will rule that the public sector has effective control over its corporate policy: one reason this is less likely than in the case of RBS is that the public sector currently only owns a minority shareholding in the new Lloyds Banking Group.

The inclusion of Northern Rock increased public sector net debt from 38.3% to 43.9% of national income (2008Q3). Once Bradford & Bingley is included, this could be increased to around 47% of national income. The inclusion of RBS from 1 December 2008 could increase public sector net debt to as much as 170% of national income. The additional inclusion of the new Lloyds Banking Group, which is less certain, could increase it to as much as 240% of national income.

But none of these interventions is intended to be permanent; as they are unwound, their impact on public sector net debt will decline as all of the institutions have significant assets. The focus for fiscal policy should be whether the public sector expects to make a profit or a loss once these positions have been unwound (i.e. whether or not the significant assets that are not taken into account in public sector net debt are worth more or less than the significant liabilities, which are). As is discussed in detail in Chapter 8, the situation is extremely uncertain and the public sector will not necessarily make a loss. Previous experience suggests the public sector can profit from such interventions: the Norwegian central bank has calculated that its government made a profit on its temporary bank investments during the Nordic banking crisis of the early 1990s (though this is in contrast to similar Swedish and Finnish interventions).²³ Therefore, sensibly, the Treasury has published and is focusing on measures of public sector net debt excluding the impact of Northern Rock and it has said that it will do the same with other similar financial market interventions.

More generally, the turmoil in financial markets and the deterioration in the outlook for the economy have led to several new policies that directly increase the risk faced by the taxpayer. These include the following:

- the Special Liquidity Scheme, introduced in April 2008, under which the Bank of England provides liquidity support to the financial sector;
- the Credit Guarantee Scheme, introduced in October 2008, under which the Treasury guarantees the new issuance of bank debt in the event of default;
- credit extended to the financial sector via the Financial Services Compensation Scheme, in the autumn of 2008, to protect some depositors in, among others, Bradford & Bingley and Landsbanki;
- the Working Capital Scheme, announced in January 2009, under which the Treasury underwrites a portion of certain new loans to small business.

All of these are contingent liabilities. As with the Bank Capitalisation Fund, in aggregate the public sector could actually make a direct profit from these interventions since in many cases a fee is being charged for the insurance being provided. However, even if the public sector expected to make an overall direct loss from these specific interventions, this would not necessarily mean that they were the wrong policies to pursue. This is because the expected outcome for society could be significantly worse without the support that these policies are expected to provide. The uncertainty over whether these

²³ See table 3, page 104 of K. Sandal, 'The Nordic banking crises in the early 1990s – resolution methods and fiscal costs' in T. Moe, J. Solheim and B. Vale (eds), *The Norwegian Banking Crisis*, May 2004, Norges Bank Occasional Paper (<http://www.norges-bank.no/upload/import/publikasjoner/skriftserie/33/chapter3.pdf>).

policies eventually directly increase or reduce public sector net debt means that it is appropriate for the government to wait until the dust has settled before any adjustment to taxation or public spending is made in response. A further discussion is provided in Chapter 8.

As we showed at the start of this section, underlying public sector net debt is forecast by the Treasury to exceed 40% of national income in 2008–09 and then to climb to a 40-year high of 57% of national income in 2013–14. This has led to the suspension of the sustainable investment rule and the introduction of a new temporary operating rule, which is discussed in the next section.

5.3 A new temporary operating rule

It is clear that the unusually large adverse shocks to the economy that have occurred since the summer of 2007 have led to a sizeable deterioration in the outlook for the UK public finances, much larger than the average error in such forecasts.

For example, the January 2007 IFS Green Budget and the subsequent March 2007 Budget both forecast that the current budget balance in three years' time (2009–10) would be 0.4% of national income. If the November 2008 PBR is correct, 2009–10 will actually see a current budget deficit of 5.3% of national income. An error of 5.7% of national income on the current budget three years out has only been made in two out of the Treasury's 26 Budget forecasts for public sector net borrowing since the March 1980 Budget. The two exceptions both came prior to the sharp recession of the early 1990s: the projection made in the March 1990 Budget for 1992–93 and the projection made in the March 1991 Budget for 1993–94, both of which underestimated public sector net borrowing by 5.9% of national income.

It would therefore have been difficult for the Chancellor and his predecessor to have built up a sufficient cushion to insulate fully against a shock to the public finances of this size. In any case, taking action by increasing taxes or cutting spending to ensure that the fiscal rules continue to be met would clearly not now be appropriate. Both fiscal rules are sensible rules of thumb in most periods. But the current period is one of those when the suspension of the rules is clearly more appropriate than slavish adherence to them.

Sensibly, the Code for Fiscal Stability²⁴ allows the government to depart from its stated fiscal rules temporarily so long as it specifies:

- the reasons for departing from the previous objectives and operating rules;
- the approach and period of time that the government intends to take to return to the previous objectives and operating rules; and
- the objectives and operating rules that shall apply over this period.

Given that the outlook for both the economy and the public finances is particularly uncertain at the moment, it would not be appropriate to place a firm timescale on when either the previous – or preferably improved – fiscal rules should be readopted. Indeed, all the Treasury has stated is that ‘The Government will depart temporarily from the

²⁴ HM Treasury, *The Code for Fiscal Stability*, November 1998 (http://www.hm-treasury.gov.uk/ukecon_fisc_code98.htm).

fiscal rules until the global shocks have worked their way through the economy in full'.²⁵ In the meantime, it has set a 'temporary operating rule' committing the government 'to set policies to improve the cyclically-adjusted current budget each year, once the economy emerges from the downturn, so it reaches balance and debt is falling as a proportion of GDP once the global shocks have worked their way through the economy in full'.²⁶ Section 3.2 suggests that if the Treasury's PBR 2008 projections are extended, it could be 20 years before public sector net debt is back below 40% of national income.

Another feature of Labour's temporary operating rule – announced in the November 2008 PBR – is that it is almost identical to one of the proposals for improvements to the fiscal framework put forward by the Conservative Party two months earlier in September 2008. This stated that the next Conservative government will introduce a mandate for the public finances 'at the end of a forecast horizon: falling debt as a percentage of GDP and a balanced current budget, adjusted for the cycle'.²⁷ Indeed, the only key difference is that Labour has stated that its new rule would only be in place temporarily (albeit potentially for a considerable period), whereas the Conservatives presumably envisage it being a permanent feature.

The attraction of such a temporary operating rule – and the flexible timescale over which it is set to operate – is that it allows considerable flexibility for fiscal policy to respond if the outlook for the economy deteriorates by more than the Treasury currently expects. For example, in the face of a sharper-than-expected deterioration in economic activity, it might be appropriate for the government to announce a further temporary fiscal stimulus package. Such an outcome would still be consistent with this temporary operating rule as long as the government could still point to a forecast improvement in the cyclically-adjusted current budget and a falling ratio of debt to national income at the end of the forecast period.

The potential downside is that it may be so much less constraining than the already discredited rules that it replaced as to offer little reassurance that it will encourage prudent tax and spending decisions. For example, there may be concerns that in the run-up to the next general election, a more flexible fiscal rule could be used to excuse lower taxes or higher levels of public spending for reasons of pure electoral advantage rather than as an appropriate decision over the extent to which fiscal policy should stimulate economic activity.

Instilling and increasing confidence that the government would not engage in such activities was recognised by Mr Brown as an important objective of policy going forwards from 1997, and a failure of Treasury policy prior to 1997. In 2002, he wrote 'We recognised too [on coming to power in May 1997] that the discretion needed for effective economic policy could only be possible within an institutional framework that commanded market credibility and public trust'.²⁸ One of the two lessons claimed to have been learned by the Treasury was the need to 'set stable fiscal rules and explain clearly

²⁵ Paragraph 1.11 of HM Treasury, *The Government's Fiscal Framework*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_fiscalframework.htm).

²⁶ Paragraph 1.12 of HM Treasury, *The Government's Fiscal Framework*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_fiscalframework.htm).

²⁷ See page 6 of Conservative Party, *Reconstruction: Plan for a Strong Economy – Plan for Change*, September 2008 (http://www.conservatives.com/~media/Files/Downloadable%20Files/Reconstruction_-_Plan_for_a_strong_economy.ashx?dl=true).

²⁸ Source: Foreword to E. Balls and G. O'Donnell, *Reforming Britain's Economic and Financial Policy: Towards Greater Economic Stability*, Palgrave Macmillan, 2002.

fiscal policy decisions' since 'throughout the last cycle the stated fiscal objectives changed on a number of occasions as the fiscal position evolved'.²⁹

A commitment to deliver a reduction in both the cyclically-adjusted current budget deficit and public sector net debt as a share of national income at the end of the forecast period potentially allows the government a great degree of flexibility when making fiscal policy decisions. Indeed, the most significant constraint is likely to be credibility with the financial markets and the interest rate that the government needs to pay to finance its new issuance. While greater flexibility may well be needed over the next few years, it remains to be seen whether it will be used appropriately.

The fiscal tightening recommended in previous IFS Green Budgets (2003, 2004 and 2005) was not announced until after the 2005 general election and was not set to be implemented fully until 2010–11. Even if it had been announced and implemented sooner, it would not have been sufficient to avoid a breach of the rules. However, if he had acted earlier in the past, Mr Brown might now be able to make a more convincing case than he is currently able to that he will restore the public finances to health as swiftly as it is sensible to do so. By eroding the credibility of the government's fiscal management prior to the crisis, his earlier decisions may now increase the risk that the government will see its borrowing costs increase at a time when it has a large and persistent stock of debt to service.

5.4 An improved fiscal framework

In this section, we set out some potential reforms to the fiscal framework that would build on the many welcome features of the one introduced by Mr Brown in 1997. We do this in three parts.

- First, we discuss improvements to the golden rule that would make it more forward looking and perhaps more likely to deliver its objective of intergenerational fairness.
- Second, we set out a proposal for a 'sustainable commitments rule', which would be an explicit limit on the extent to which future taxpayers are projected to have to finance commitments already made, as a step forwards from a ceiling on public sector net debt.
- Third, we set out how this government, or its successor, could boost confidence that it was striving to deliver its stated fiscal objectives.

In each case, we also assess the Conservatives' proposed fiscal framework.

An improved golden rule

There are at least three dimensions in which the operation of the golden rule could be improved if and when it is readopted:

- First, some changes might be possible to ensure that compliance with the golden rule was more likely to be consistent with the government's stated objective of intergenerational fairness.

²⁹ Page 1 of HM Treasury, *Fiscal Policy: Lessons from the Last Economic Cycle*, November 1997, London: HM Treasury (<http://www.hm-treasury.gov.uk/d/lessons.pdf>).

- Second, transparency could be enhanced further by taking greater account of the uncertainty in any fiscal projection.
- Third, a target for the projected medium-term current budget surplus would eliminate the problems of both dating an economic cycle and the fact that the golden rule becomes inappropriately backward looking whenever the end of an economic cycle approaches.

We discuss each in turn.

Enhancing intergenerational fairness

In principle, it would be possible to have a more sophisticated distinction between public spending that solely benefits the current generation and public spending that, in part, benefits future generations. However, the benefits of abandoning the familiar National Accounts distinction between current and capital spending may well not exceed the costs in terms of transparency and predictability.

An improvement to the golden rule that would enhance intergenerational fairness would be to make it symmetric, like the inflation target. This would require the government to pursue a point target for current budget balance rather than ‘balance or surplus’. Symmetry seems a more appropriate way to pursue intergenerational fairness, and it also avoids the problem of the Chancellor needing to decide – implicitly or explicitly – what safety margin to aim for to give an acceptable probability of falling the right side of the pass/fail line. This is a nice feature of the Conservatives’ proposed fiscal framework as they have said that they would aim for a balanced current budget, rather than a balance or surplus on the current budget.

Better account of uncertainty in fiscal forecasts

The Treasury should present its forecasts for the fiscal aggregates in such a way that they explicitly quantify the uncertainties around the central estimate – for example, with a ‘fan chart’ similar to that which the Bank places around its inflation target. We place similar fans around our forecasts in Chapter 6 and the National Institute for Economic and Social Research (NIESR) places them around its forecasts in its quarterly *Review*.³⁰ The baseline forecast should also be a genuinely ‘central’ forecast, rather than one based on ‘cautious’ economic assumptions that inject deliberate bias. These changes would focus attention on the extent to which subsequent out-turns were surprising given the forecasts made and the uncertainty around those forecasts, rather than on whether a particular target or point estimate had been ‘met’ or ‘missed’.

A forward-looking approach

The Treasury should no longer seek to meet the golden rule over a specific dated economic cycle. Instead, it should say that it is aiming for a target level for the current budget balance over an appropriate time horizon. It can be argued that the Treasury had in effect been doing this prior to the recent suspension of the fiscal rules, with a rolling target (now being missed) to achieve a current budget surplus of around $\frac{3}{4}\%$ of national income after five years. Such a forward-looking approach is explicit in the Treasury’s new temporary operating rule that states that the cyclically-adjusted current budget deficit should fall over time. It is also a sensible feature of the Conservatives’ proposed

³⁰ See <http://www.niesr.ac.uk/pubs/review.php>.

framework, as their proposed target of a balanced current budget is for the end of the forecast horizon.

One problem with operationalising such an approach is that the Treasury's forecasts for tax revenues typically include an automatic tightening of around $\frac{3}{4}\%$ of national income over a five-year time horizon as a result of 'fiscal drag'. This means that the government could run a current budget deficit every year of $\frac{3}{4}\%$ of national income, by giving away the proceeds of fiscal drag in tax cuts or higher spending each year, and always assert that it is on course to achieve a current budget balance in five years' time on 'unchanged policies'. This strengthens the case, which is already strong on transparency grounds, for changing the definition of unchanged policy to one in which income tax and National Insurance thresholds are assumed to rise in line with average earnings (or alternatively the projected growth in their underlying tax base) rather than prices. A similar, but in aggregate quantitatively less important, case could be made for other taxes (such as stamp duty land tax and inheritance tax) in which the tax base is expected to grow in real terms over time. Successive Chancellors have found it convenient to exploit fiscal drag as a 'stealth tax' that raises revenue over time, so such a change is unlikely to find favour with the Treasury.

The use of a fixed, dated cycle means that policy is unnecessarily and unhelpfully backward looking, with tax and spending decisions today in principle depending on past policy and forecast errors and on changing assessments of the start date of the cycle, rather than on the most appropriate path looking forward. It is also worth bearing in mind that Mr Brown's Chancellorship was unusually long: he and Denis Healey are the only Chancellors in the last half a century to have served for a full economic cycle.

Protecting future generations: a 'sustainable commitments rule'

The key rationale for a debt ceiling is to limit the impact on future taxpayers of tax and spending decisions made today. This could be justified both on the grounds of ensuring financial sustainability and on the grounds of fairness.

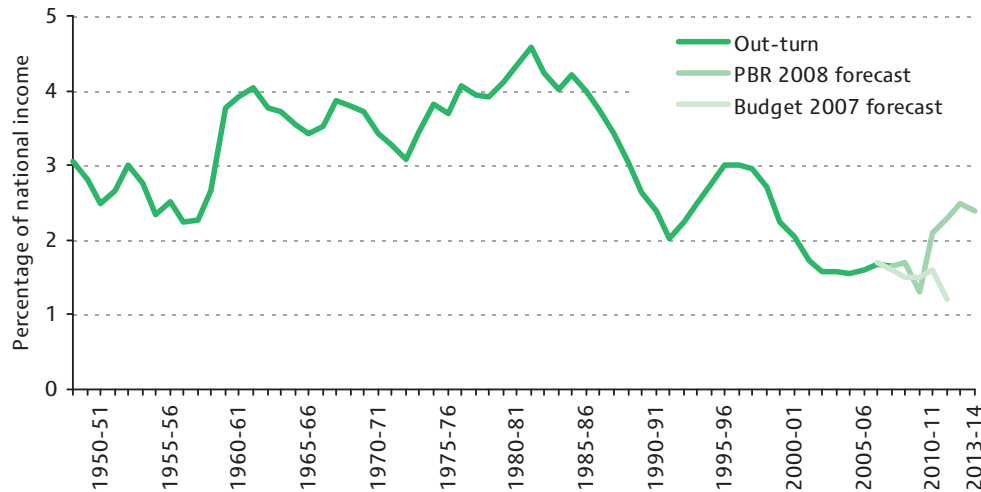
Compliance with the sustainable investment rule would have largely achieved this by placing a limit on the outstanding stock of public sector net debt. In contrast, neither the government's 'temporary operating rule' nor the Conservatives' proposed fiscal framework would place any constraint on the total size of commitments that future generations might face. Both simply commit to having debt (as a share of national income) falling at the end of the forecast period. Both would therefore still be met even over a period in which debt increased sharply before being projected to fall back slightly. In any case, compliance with the 'golden rule' component of their respective fiscal rules³¹ would more than likely imply a falling level of debt at the end of the forecast period, unless public sector net investment was increased sharply. Therefore, once we are through the current period of economic turmoil, a return to a simple ceiling for public sector net debt (or perhaps a broader measure of indebtedness) would be preferable to the framework that the Conservatives have proposed.

But, if it is the burden on future taxpayers that is of concern, perhaps we should focus on the cost of servicing the debt that they will have to pay, rather than the outstanding stock of debt itself. The key difference is that, if the rate of interest at which the government can

³¹ At the end of the forecast period to have a falling cyclically-adjusted current budget in the case of Labour or a cyclically-adjusted balance in the case of the Conservatives.

borrow falls (rises), it would seem reasonable to carry out more (less) investment projects from which current and future taxpayers can benefit. A ceiling on public sector net debt would not allow this, but a ceiling on future public sector net debt interest payments would. This section outlines what such a “sustainable commitments rule” might look like.

Figure 5.5. Public sector net debt interest since 1948–49



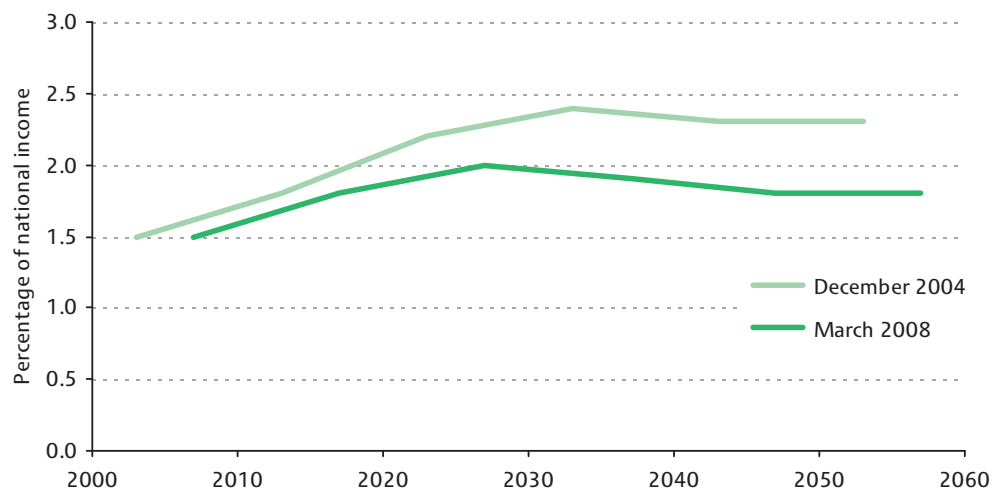
Sources: Public sector net debt interest is gross interest paid less gross interest received. Measures of gross interest are ONS series ANLO and ANBQ, from table 2.3C of *Financial Statistics Freestanding Time Series Data*. Projections from HM Treasury, *Budget 2007* (http://www.hm-treasury.gov.uk/bud_bud07_index.htm) and *Pre-Budget Report 2008* (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

In Figure 5.5, we show the evolution of public sector net debt interest as a share of national income since 1948–49. Also shown are the forecast for public sector net debt interest projected in the November 2008 PBR and the forecast from the March 2007 Budget, which pre-dates the current economic turmoil. In the 1950s, public sector net debt interest payments fluctuated between 2.0% and 3.0% of national income. In the 1960s and 1970s, they were higher, fluctuating between 3.0% and 4.0% of national income. In 1981–82, they had reached a post-Second-World-War peak of 4.6% of national income and then declined sharply to 2.0% in 1991–92. On coming to power in 1997, Labour inherited a public sector net debt interest burden of 3.0% of national income, and this fell to a post-Second-World-War low of 1.6% of national income in the middle of this decade. This was a result of a combination of falling public sector net debt until 2001–02 and falling interest rates on the stock of government borrowing on average over the whole period. Budget 2007 forecast that public sector net debt interest payments would remain around this low level. The November 2008 PBR forecast that they would rise back to 2.5% of national income as a result of higher borrowing. If correct, this would still be lower than the level that Labour inherited from the Conservatives.

A focus on the commitments made for future taxpayers, and a consideration of the expected future stream of public sector net debt interest payments, also lends itself more easily to the inclusion of some of the other commitments that the public sector has made that are not scored in public sector net debt (since the estimates will not be sensitive to the choice of discount rate). The latest forecasts (March 2008) for public spending on future public-service pension payments over the next half a century are shown in Figure 5.6, alongside the earliest vintage of forecasts that we have been able to locate (from December 2004). The latest Treasury projections suggest that spending on public-service

pensions will increase from 1.5% of national income in 2007–08 to 2.0% of national income in 2027–28 before dropping back to 1.8% of national income by 2047–48. In other words, they are of a similar magnitude to the net annual servicing cost of the entire stock of debt. An earlier projection from December 2004 suggested that spending would climb to 2.4% of national income. This difference, at least in part, is likely to be due to the recent reforms to public sector pensions, such as increasing the normal pension age for new entrants and raising future employee contributions.³² Ideally in Figure 5.6, we would also have shown similar projections prior to April 1999 before recent increases in public sector pay and public sector employment had fed into expected future public-service pension payments, but to our knowledge these December 2004 projections are the earliest available.

Figure 5.6. Estimated future public-service pension payments



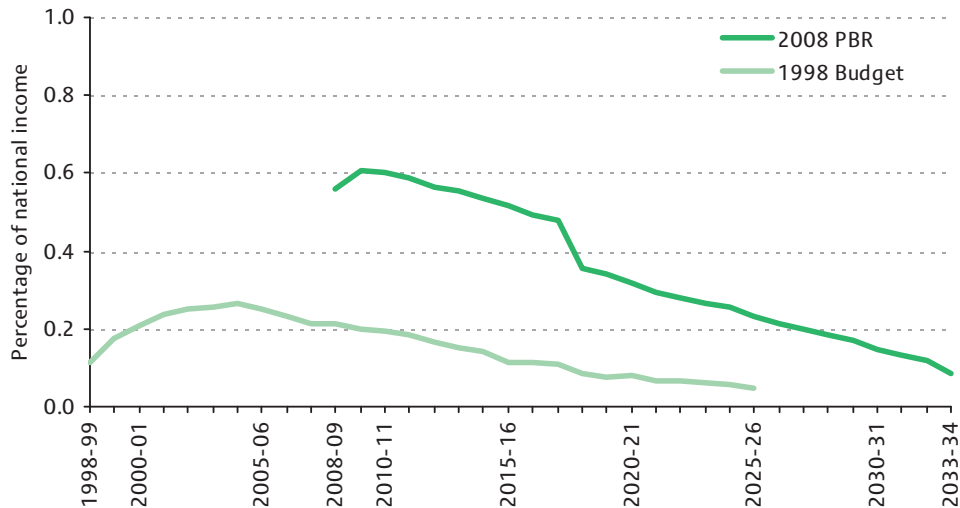
Note: Years refer to the financial year in which three quarters of the calendar year lie.

Sources: HM Treasury, *Long-Term Public Finance Report: An Analysis of Fiscal Sustainability*, 2004 and 2008 (both available from http://www.hm-treasury.gov.uk/bud_bud08_longterm.htm).

Future commitments under PFI contracts that have already been signed are presented in Figure 5.7. These are now published biannually by the Treasury and cover the next 25 years (by which time the expected future payments are very low as most contracts that have already been signed will have been completed). The latest projections from the November 2008 PBR are shown alongside the projections from the March 1998 Budget. As a share of national income, future payments to PFI providers are expected to gradually decline over time, with a step down in 2018–19 caused by the structure of the three Department for Transport London Underground contracts (which, by capital value, are the three largest PFI deals signed to date, representing £17.6 billion out of the total £62.8 billion of the current signed deals by capital value). It is also clear from Figure 5.7 that the last 10 years have seen a sharp increase in the use of PFI arrangements to deliver public services. At the time of Budget 1998, annual payments under PFI contracts would have peaked at below half the 0.6% of national income that was actually paid in 2008–09.

³² For a discussion of the impact of these reforms, see, for example, A. Steventon, *An Assessment of the Government's Reforms to Public Sector Pensions*, Pensions Policy Institute, London, 2008 (http://www.pensionspolicyinstitute.org.uk/uploadeddocuments/PPI_public_sector_pensions_16_Oct_2008.pdf).

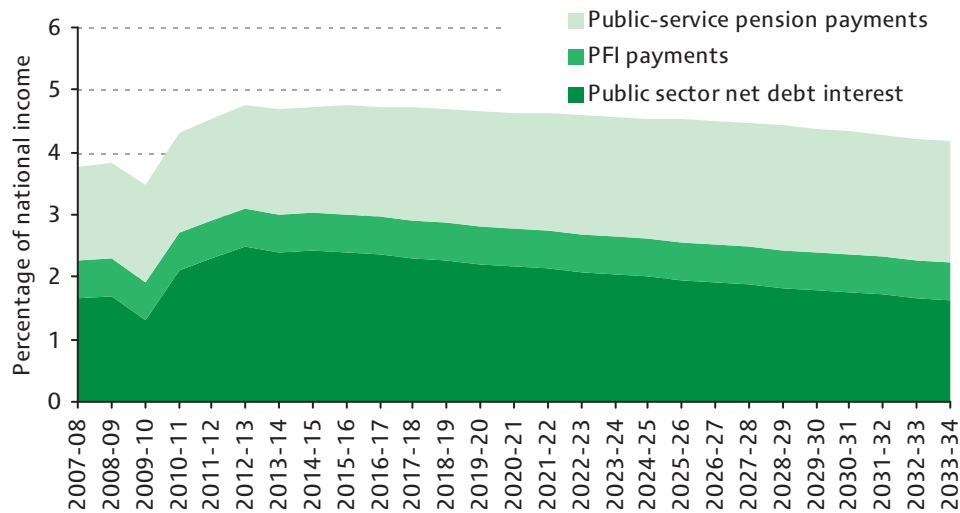
Figure 5.7. Estimated future payments under PFI contracts



Sources: Table B16, page 126 of HM Treasury, *Financial Statement and Budget Report*, Hc620, London, March 1998. Estimated future PFI payments from table 2.6, page 37 of HM Treasury, *2008 Pre-Budget Report: The Economy and Public Finances – Supplementary Material*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_chartstables_501.pdf).

Future commitments from public sector net debt interest payments, public-service pension payments and PFI contracts are brought together in Figure 5.8. The figures for debt interest payments are those presented in Figure 3.3; they assume that over the medium term, revenues and non-debt-interest spending stabilise as a share of national income at the level indicated by the Treasury in PBR 2008 for 2015–16. The figures further assume that the effective interest rate on government debt remains at its 2013–14 level. For the case of future PFI commitments, rather than assume these will decline over time – as was shown in Figure 5.7 – we instead assume that new deals will continue to be signed such that annual payments remain at the current (peak) level of 0.6% of national income. The total of these commitments is projected to increase from 3.8% of national income in 2007–08 to 4.8% of national income in 2012–13. This 1.0% of national income increase represents £15 billion in today’s terms, which is a considerable increase. In addition, even by 2033–34, outgoings on public sector net debt interest, public-service pensions and PFI contracts would still not have returned to the level they were at in 2007–08. This increase is due to the rise in public sector net debt interest payments over the period from 2009–10 to 2012–13 and the more gradual projected increase in public-service pension payments over the period to 2027–28.

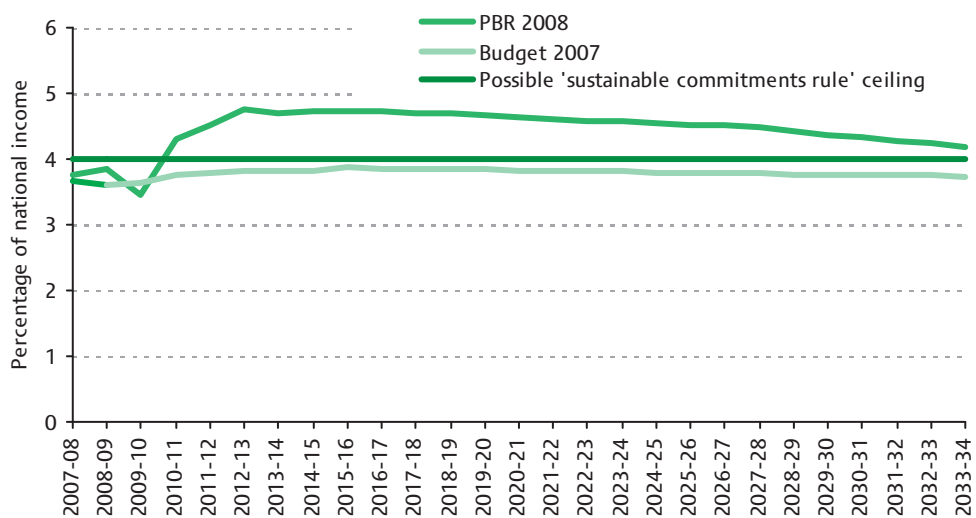
Figure 5.8. Estimated commitments for future taxpayers, PBR 2008



Sources: As Figures 5.5, 5.6 and 5.7.

Figure 5.9 shows how these estimated commitments for future taxpayers based on PBR 2008 compare with similar calculations based on Treasury figures from before the current economic turmoil. This shows that instead of reaching 4.8% of national income in 2012–13, projections on the same basis using Budget 2007 figures would have implied these commitments remaining below 3.9% of national income per year throughout the whole forecast period. At the time, public sector net debt was forecast to remain below 40% of national income throughout the period to 2011–12, so this suggests that a 40% ceiling on net debt, along with current commitments on PFI contracts and public-service pensions, might have implied similar constraints to a ‘sustainable commitments rule’ ceiling of 4.0% of national income per year.

Figure 5.9. Compliance with a possible ‘sustainable commitments rule’ ceiling, PBR 2008 compared with Budget 2007



Sources: As Figures 5.5, 5.6 and 5.7, and HM Treasury, *Financial Statement and Budget Report*, March 2007 (http://www.hm-treasury.gov.uk/bud_budget07_repindex.htm).

The idea of a 'sustainable commitments rule' needs further investigation before being put forward as a firm policy proposal. But it would seem to have the strengths of the sustainable investment rule objective of targeting public sector net debt, along with the additional advantages of allowing higher government borrowing when such finance was cheaper and of taking into account a more comprehensive set of commitments affecting future taxpayers. Were the government to move towards such a target, it should continue to publish data on public sector net debt alongside other measures of the state of the public finances. This is consistent with current practice, as the Treasury provides data on, among other measures, 'core debt', 'net worth' and the 'primary balance' in Budgets and PBRs.³³

Which commitments should be encompassed by such a rule would need to be considered very carefully. For example, we have included expected public-service pension commitments, but there is a strong argument that these should instead be constrained by an enhanced golden rule as the benefits they deliver may have largely already been delivered. Were such pensions funded, or notionally funded, the Treasury could include new accrual of public-service pension rights within the target set by the golden rule. To the extent that current accrual of public-service pensions is associated with the delivery of benefits for current taxpayers, this would enhance intergenerational fairness. In effect, it would be treating current pay for public sector workers on an equal footing to that of the accrual of their pension rights, and would therefore help ensure that the government had the right incentive to offer the appropriate mix of pay and pensions in the remuneration packages of public sector workers. Such a change would, however, come at the not inconsiderable cost of such an enhanced golden rule not being based on National Accounts measures of fiscal aggregates, which would risk loss of transparency and potentially confidence in the rules.

Restoring confidence: a fiscal policy committee

Mr Brown's move in 1997 to grant an independent Bank of England control over interest rates has been widely hailed as taking the politics out of monetary policy, even by those who disagree with decisions that the Monetary Policy Committee has taken. The same cannot be said of fiscal policy, where the serial overoptimism of the Treasury's forecasts, the conveniently timed redating of the economic cycle and the decision to delay significant policy tightening until just after the 2005 general election all contributed to the widespread sense – well before the current crisis – that the rules were less of an influence on the government's tax and spending decisions than politics (see Section 5.2).

Given the erosion in the credibility of the rules prior to the crisis, the government's claims in the November 2008 PBR that its 'fiscal policy objectives remain unchanged' and that it would merely 'depart temporarily from the fiscal rules until the global shocks have worked through the economy in full' are unlikely to inspire much confidence, especially as it could be 20 years or so before public sector net debt is back below 40% of national income (see Section 3.2). If the government is to restore people's confidence in its management of the public finances, the first task will be to restore confidence in its determination to deliver on its short- and medium-term goals, not on its distant aspirations.

³³ See, for example, table B3, page 190 of HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm).

Given the continued broad support for central bank independence (for the time being at least), does this model hold any lessons for how we might reassure people that fiscal policy decisions are being taken in the pursuit of long-term sustainability rather than short-term expediency?

Alesina and Tabellini³⁴ identify four criteria to help decide when it is appropriate for politicians to delegate policy decisions to independent bodies:

- First, we should expect that there would be a risk of deliberately socially harmful distortions to policy decisions that are left to politicians. If not, why delegate them?
- Second, there needs to be a broad consensus over what constitutes 'good policy' in the area in question. This ensures that the mandate given to the independent body is seen as technical rather than political.
- Third, delegated policy decisions should not create big winners and losers. Elected politicians need to take such decisions if they are to be seen as legitimate (especially by the losers).
- Fourth, policy decisions should not be delegated when this gives rise to significant coordination problems with policy decisions taken by others.

These four criteria suggest that some fiscal policy decisions might be ripe for delegation, but that many would not be. Specifically, it might be sensible to delegate the tasks of forecasting tax revenues and non-discretionary spending and determining whether the government is on course to raise sufficient revenue to meet its spending plans and comply with any fiscal rules that it has set itself. But it would not be sensible to delegate the choice of how much to spend (and on what) or how exactly to structure the tax system to raise the necessary revenue.

Why might we want to delegate the task of overall revenue forecasting? Governments might often have an incentive to overstate the amount of revenue that they expect to raise from an existing tax system, so as to be able to delay the announcement of unpopular revenue-raising measures. Governments might believe they can get away with such overoptimism because they can always claim to have more information from the tax-collecting authorities than they are able to share with the general public. They also have more resources to devote to the forecasting process than outside, independent commentators. This makes it hard for outsiders to prove the government is engaged in wishful thinking. There is some tentative evidence that governments in the UK have succumbed to this temptation. Both the Conservatives after being re-elected in the 1992 general election, and Labour after being re-elected in the 2001 and the 2005 general elections, chose to announce considerable tax-raising measures in the following 12 months despite these not being mentioned in their election manifestos.

And why might such behaviour be a problem? Delaying the tax increases required to pay for a given spending programme accumulates additional public sector debt and means that larger and more distorting tax increases may be required later, once the need to raise revenue can no longer be avoided. In the case of the recent serial overoptimism of fiscal forecasts in the UK, avoiding corrective action earlier meant that the government had no room for manoeuvre to deal with a modest downturn in the economy. While the fiscal costs of the current financial crisis are unlikely to have been absorbable within any

³⁴ A. Alesina and G. Tabellini, 'Bureaucrats or politicians?', Bocconi University, IGER Working Paper 238, 2003 (<http://www.iger.unibocconi.it/index.php>).

reasonable degree of caution, the current suspension of the fiscal rules will do little to boost confidence that going forwards the government's tax and spending decisions will be appropriately constrained, especially in the short period between now and the next UK general election.

What about the other criteria identified by Alesina and Tabellini?

- There is a widespread consensus that the government should raise enough revenue to avoid relying on unsustainable levels of borrowing to finance its spending, so this in itself is unlikely to be politically contentious.
- The size of the budget deficit does not have significant distributional consequences in any given year, which avoids the issue becoming politically controversial for that reason. The size of the deficit does have distributional consequences across generations, as it pushes the cost of today's spending onto future taxpayers. Arguably, this strengthens the case for delegation, as future taxpayers are un- or under-represented in the political process.
- Delegating decisions regarding the overall level of revenue and the budget deficit may reduce the danger of coordination problems, as it further reduces the likelihood that fiscal and monetary policy will be used to influence overall spending in the economy in inconsistent ways.

In contrast, as Debrun and others at the International Monetary Fund point out,³⁵ policy decisions serving primarily distributional objectives, such as the progressivity of the tax system or the size of social transfers, are not good candidates for delegation:

Even though political decisions on them might create economic difficulties, there is no broad consensus on what constitutes sound policy in these areas. Aspects of fiscal policy that are so highly dependent on social preferences should clearly remain under the control of the political process.

Debrun et al. identify six illustrative models for fiscal agencies through which the delegation of decisions over revenue or the budget balance could be achieved:

- Independent fiscal authorities
 1. Setting long-term objectives and consistent short-term targets
 2. Setting targets consistent with a given fiscal rule
 3. Adjusting some predetermined tax and spending packages
- Fiscal councils
 4. Providing objective analysis of fiscal policies
 5. Providing independent budget forecast
 6. Providing normative assessment and recommendations.

They note that there have been plenty of proposals for independent fiscal authorities along these lines, but that no country had implemented one to date. For a number of reasons, these models may take delegation too far.

³⁵ X. Debrun, N. Hauner and M. Kumar, 'The role for fiscal agencies', in M. Kumar and T. Ter-Minassian (eds), *Promoting Fiscal Discipline*, International Monetary Fund, 2007.

Central bank independence in the UK is seen as democratically legitimate because the elected government sets the target and gives the central bank a policy instrument to vary in pursuit of it. Allowing an independent body to set long- or short-term targets for fiscal policy would lack the same legitimacy. The third variant – allowing an independent body to vary a particular spending total or tax rate – might appear closer to the practice of central bank independence in the UK, but while there is general agreement that (in normal circumstances at least) the Bank of England’s short-term interest rate is the best instrument for monetary policy, it is less clear that there would be agreement over which tax or spending parameter the independent body should be allowed to vary – and whether it should be the same one at all times.

Some form of fiscal council seems a more attractive route, and various countries have adopted variants of this model. For example:

- The **Belgian High Council of Finance** recommends specific annual borrowing requirements for all levels of government. It then recommends the fiscal stance consistent with those borrowing requirements.
- **Denmark’s Economic Council** analyses fiscal and structural policies and recommends changes. It is chaired by three ‘wise men’ (usually academics), but includes representatives of trade unions, employers, central banks and the government.
- The **German Working Group on Tax Estimates** publishes regular estimates of tax revenues. It comprises government officials, academics and representatives of the advisory Council of Economic Experts, and has a reputation for relative independence, according to Debrun et al.
- The **US Congressional Budget Office** produces economic forecasts and baseline projections of federal revenues and spending. But the task of assessing the revenue implications of particular pieces of proposed tax legislation lies with the Congressional Joint Committee on Taxation.

As suggested earlier, in the UK such a body could forecast revenues and non-discretionary spending and reach a view on how much the government would need to raise – or could afford to give away – while meeting its spending plans and adhering to its fiscal rules. In descending order of delegation, the government might promise (a) to take the council’s advice under all circumstances, (b) to take the council’s advice under most circumstances, explaining publicly if it chose not to, or (c) simply to take account of the council’s advice in deciding what to do.

IFS researchers have advocated introducing greater independence in the fiscal forecasting process in recent Green Budgets. Drawing on this and other recommendations,³⁶ the opposition Conservative Party in the UK put forward a proposal to create an Office for Budget Responsibility (OBR) in September 2008. This body would:

³⁶ For example, T. Kirsanova, C. Leith and S. Wren-Lewis, ‘Optimal debt policy, and an institutional proposal to help in its implementation’, paper prepared for a workshop organised by DG Ecfm of the European Commission on the Role of National Fiscal Rules and Institutions in Shaping Budgetary Outcomes, Brussels, November 2006 (http://www.economics.ox.ac.uk/members/simon.wren-lewis/docs/eu_paper_on_fiscal_institutions_4.pdf).

- be responsible to Parliament;
- be made up of a small number of experts appointed for single non-renewable terms and supported by a permanent staff of economists and tax experts;
- have privileged access to information from the Bank of England, the Treasury, HMRC and the Office for National Statistics;
- produce fiscal forecasts at least once a year in advance of the Budget, plus estimates of the scale of all future government liabilities;
- state how much loosening or tightening of fiscal policy would be necessary by the end of a given forecast horizon to meet the government's fiscal rules.

The OBR would be a purely advisory body. The Treasury would retain the capacity to make its own forecasts, suggesting that the OBR would duplicate the Treasury's current fiscal forecasting role rather than replace it. The decision on how much to loosen or tighten would remain with the Chancellor, although he or she would have to explain to Parliament if they disagreed with the OBR's analysis.

This does raise the question of how much of an advance this would represent on current independent scrutiny of the public finances. Indeed, questioning Conservative leader David Cameron on the proposal, the BBC's Andrew Marr said: 'It just sounds like the IFS on steroids'.³⁷ Mr Cameron responded that it would be a properly funded government office and argued: 'Think of the enormous consequences if a Chancellor and a Prime Minister cast them aside and say "we're not going to do that". We're making a rod for our own backs.'

Proper funding, privileged access to official information on revenues and spending, and official status akin to that of the National Audit Office might well make such a body a useful addition to existing independent scrutiny of the Treasury's forecasts.

In developing this or similar proposals, the Conservatives and the other parties would need to address a number of issues. For example:

- Should the independent body carry out its own macroeconomic forecasts or simply forecast fiscal outcomes conditional on someone else's macro forecasts being correct? Judgements regarding the medium-term outlook for growth in national income and its key components are crucial in assessing whether a given set of tax and spending plans are fiscally sustainable. But there is no reason to believe that such a new body would be a better macroeconomic forecaster than anyone else. An obvious possibility would be to require the Bank of England to produce a set of macroeconomic assumptions consistent with its own published forecasts, although the Bank may feel that this would drag it unhelpfully into debates over fiscal policy.
- How should the independent body interact with the Treasury – if at all – during the process of policy development? For example, if the system had been up and running prior to the November 2008 PBR, should the Treasury have been talking in advance to the independent body regarding its assessment of the amount of revenue that would be raised by its proposed income tax reforms? Interaction might improve the quality of policy decisions, and avoid unnecessary public disagreement, but having the independent body assess their impact only after the event would enhance the

³⁷ http://news.bbc.co.uk/1/hi/programmes/andrew_marr_show/7640418.stm.

perception of independence from the Treasury. If the body were to comment on policy proposals after a Budget or PBR, it would have to decide whether to do so quickly (for example, in time for Treasury Select Committee hearings) or only when it produces its next baseline forecast.

- What should the structure and governance of the new body be? Given the nature of the forecasting and policy judgements that it would be tasked with making, it seems unlikely that having a large body of individually accountable voting members – like the MPC – would be sensible. More plausible would be a relatively small group (perhaps a Chairman and two deputies) tasked with reaching a consensus view, supported by a professional staff.
- Finally, there might be a trade-off – particularly in the short term – between the technical quality of the underlying forecast and the credibility gained from having the OBR rather than the Treasury produce the forecast. Even if the OBR is given as much access to privileged data as the Treasury, at least initially it will have less in-house forecasting expertise. Ensuring that the OBR has sufficient resources would help, as would taking some high-performing staff from the Treasury (but, of course, this might be at the expense of the Treasury’s own forecast). But it might still suggest that an appropriate model might be for a new OBR to be given time to establish its track record before the government considers precommitting itself to take its advice.

5.5 Conclusions

Given the scale of the deterioration in the public finances revealed in the PBR, it is important for the government to convince voters and investors that it will manage the public finances appropriately and, in particular, do what is necessary to repair any remaining damage once the economy has stabilised. Failing to do so could make it more expensive for the government to borrow, further increasing the rise in interest payments that will result from the increase in indebtedness.

That task has not been made any easier by the fact that the government’s famous fiscal rules had lost credibility as a meaningful constraint on its tax and spending decisions long before the impact of the credit crunch required them to be suspended. Under these circumstances, we cannot expect people to have a great deal of faith in the ‘temporary operating rule’ that has replaced them for the time being. In any event, the Treasury has had to extend its usual forecasting horizon to claim to be on course to meet even its new rule at the outset. Going forwards, the new rule will not be particularly constraining.

Given the huge uncertainties around the current fiscal outlook, it is not clear that any temporary limits on borrowing and debt could be tight enough to appear to act as a constraint without offering a hostage to fortune if the recession is deeper or longer than expected. For now, credibility rests more on the government’s ability to persuade people that it will indeed deliver the spending squeeze and tax increases that it has signalled from 2010–11 onwards – and more if that turns out to be necessary. The verdict of the financial markets will be crucial.

This strengthens the case made in past Green Budgets for introducing greater independence into the official fiscal forecasting process, to dispel suspicions of politically motivated wishful thinking in revenue and spending projections. The Conservative

proposal for an Office for Budget Responsibility is a useful starting point, but with some important issues to be clarified.

In the longer term, there is the question of whether the government should readopt the old fiscal rules as originally defined. We argue that some important reforms should be considered. The golden rule should be symmetric and more forward looking; it should perhaps also require any future increases in unfunded public-service pension commitments to be matched by a surplus on the current budget. As for the sustainable investment rule, this or a future government may wish to consider the merits of a ceiling on future interest (and other similar) payments, rather than a ceiling on the stock of public sector debt.

6. Green Budget public finance forecasts

Robert Chote, Carl Emmerson and Gemma Tetlow (IFS)

Summary

- Our central forecast is for public sector net borrowing and the current budget deficit to be £6.6 billion bigger this year, and £6.4 billion bigger next year, than forecast in the November 2008 Pre-Budget Report.
- Assuming that the economy evolves largely as the Treasury expects, over the medium term we are around 1.3% of national income – or around £20 billion in today's terms – less optimistic than the Treasury about the current budget balance and public sector net borrowing. This reflects a weaker outlook for receipts from income tax, National Insurance contributions and corporation tax.
- If the economy evolves as the PBR predicted, we would expect the current budget balance to move from a peak deficit of 5.7% of national income in 2009–10 to a deficit of 2.4% of national income in 2013–14. Of this 3.3% of national income forecast improvement, 1.8% of national income comes from a forecast fall in current spending and 1.5% of national income from a forecast increase in the tax burden.
- We would also predict higher levels of public sector net debt – excluding the impact of the temporary interventions in financial institutions – than the Treasury, expecting it to rise to 62.1% of national income in 2013–14. In contrast, the Treasury forecasts that it will be at 57.4% in that year.
- There is considerable uncertainty around any fiscal forecast, and even more so in the present climate. If the economy were to follow Morgan Stanley's central case, we would expect the current budget in 2013–14 to be 2.8% of national income worse than the Treasury predicts. Under its 'pessimistic case', this gap rises to 6.4% of national income. Even under its 'optimistic case', where public sector net borrowing would be back in balance in 2013–14, net debt would still hit a peak of 47.3% of national income. This would be the highest level since 1977–78.
- Our forecasts suggest that to expect to achieve the improvement in the public finances set out in the PBR would require some combination of spending cuts and tax increases sufficient to raise an extra £20 billion or so by the end of the next Parliament. In current circumstances, the cost of doing nothing, should action be required, is larger than the cost of acting, only to find that it was unnecessary and can subsequently be reversed.

6.1 Introduction

This chapter presents the IFS public finance forecasts and discusses them in the context of the government's new temporary operating rules for the public finances. Section 6.2 presents the 2009 Green Budget forecasts for 2008–09 and 2009–10, using as a baseline the assumption that the economy evolves largely as the Treasury predicted in the November 2008 Pre-Budget Report (PBR), but where, as we shall see, tax revenues are

slightly weaker. Section 6.3 looks at the medium-term prospects for the public finances (up to 2013–14), based on the same underlying economic assumptions. Section 6.4 compares our baseline forecasts with forecasts based on the alternative macroeconomic assumptions outlined by Morgan Stanley in Chapter 4. Finally, Section 6.5 concludes with what these projections imply for the 2009 Budget judgement.

6.2 Short-term projections

In 2007–08, receipts came in £3.7 billion lower than the Treasury had forecast in its PBR in October 2007 and about £1.2 billion lower than we forecast in the January 2008 Green Budget, as shown in Table 6.1. The out-turn for current spending was £5.3 billion lower than forecast by both the Treasury and us. The larger offsetting error for the Treasury meant that its PBR 2007 forecast for the current budget was more accurate than our January 2008 Green Budget forecast: the Treasury forecast was £1.6 billion too pessimistic while ours was £4.1 billion too pessimistic. This was the result of the relatively slow growth in current spending that had been seen at the end of 2006–07 being repeated in 2007–08. Slightly higher-than-forecast investment spending (£0.2 billion in both cases) meant that public sector net borrowing in 2007–08 was £1.4 billion lower than the Treasury forecasted in October 2007 and £3.9 billion lower than we forecast in January 2008. For more details on the components of these forecasts and out-turns, see Appendix A.

Table 6.1. Comparison of forecasts for government borrowing, 2007–08

<i>£ billion</i>	HM Treasury PBR forecast, October 2007	IFS Green Budget forecast, January 2008	Estimate, PBR, November 2008
Current receipts	551.2	548.7	547.5
Current expenditure ^a	559.5	559.5	554.2
Net investment	29.7	29.7	29.9
Total managed expenditure	589.2	589.2	584.1
Public sector net borrowing	38.0	40.5	36.6
Surplus on current budget	-8.3	-10.8	-6.7

a. In line with the National Accounts, depreciation has been included as current expenditure.

Sources: Out-turn figures for 2007–08 from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm). Forecasts from HM Treasury, *2007 Pre-Budget Report and Comprehensive Spending Review*, October 2007 (http://www.hm-treasury.gov.uk/pbr_csr07_index.htm) and table 5.2 of R. Chote, C. Emmerson and G. Tetlow, 'Green Budget public finance forecasts', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap5.pdf>).

Borrowing in 2008–09

Table 6.2 provides an overview of the Treasury's and the January 2009 Green Budget baseline projections for receipts, spending and borrowing in the current financial year. The November 2008 PBR revised down the Treasury's previous, Budget 2008, forecast for receipts in 2008–09 by £29.5 billion. The 2009 Green Budget baseline forecast for 2008–09 is that receipts will be a further £6.6 billion lower than PBR 2008 expected. Our baseline estimate for current spending and net investment in 2008–09 is that they will be the same as the Treasury's PBR forecast. Therefore, our baseline forecast for the current

Table 6.2. Comparison of forecasts for government borrowing, 2008–09

<i>£ billion</i>	Budget, Mar. 08	PBR, Nov. 2008	Green Budget, Jan. 09	Differences in Green Budget forecast relative to:	
				Budget	PBR
Current receipts	575	545.5	538.9	–36.1	–6.6
Current expenditure ^a	585	586.7	586.7	+1.7	0.0
Net investment	33	36.5	36.5	+3.5	0.0
Total managed expenditure	618	623.2	623.2	+5.2	0.0
Public sector net borrowing	43	77.6	84.3	+41.3	+6.6
Surplus on current budget	–10	–41.2	–47.8	–37.8	–6.6

a. In line with the National Accounts, depreciation has been included as current expenditure.

Sources: Treasury forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm) and HM Treasury, *Budget 2008: Financial Statement and Budget Report*, March 2008 (http://www.hm-treasury.gov.uk/bud_bud08_repindex.htm).

budget deficit in 2008–09 is that it will be £6.6 billion larger (at £47.8 billion) than the PBR 2008 forecast suggested. Similarly, we expect borrowing in 2008–09 to be £6.6 billion higher than the Treasury's forecast (at £84.3 billion).

Receipts and spending in 2008–09

The 2009 Green Budget forecast for receipts in 2008–09 is £6.6 billion lower than the Treasury's 2008 PBR projection. Table 6.3 shows the forecast for receipts in 2008–09 (and also that for 2009–10) broken down into the constituent taxes. For most taxes, we expect revenues in 2008–09 to be in line with the Treasury's PBR forecast.

There are four significant exceptions to this – income tax, value added tax (VAT), capital gains tax and stamp duty – and in all of these cases we forecast lower revenues than the 2008 PBR. (In the case of corporation tax revenues, we forecast that receipts will be £0.1 billion higher than the PBR.)

Our model for income tax suggests that income tax revenues will be £4.1 billion lower than forecast in the 2008 PBR. One reason why our model is forecasting low growth in income tax receipts is that we have assumed particularly low growth in taxable incomes among the top 1% of individuals, who the Treasury forecasts will contribute 23.1% of income tax revenues this year.¹ Figures for income tax receipts in January 2009 – set to be released by the Office for National Statistics on 19 February 2009 – will give a clear indication of the likely level of these receipts in 2008–09 and the extent to which bonuses and self-assessment payments have been affected by the turmoil in financial markets seen since August 2007. (Similarly, figures on corporation tax will also shed much light on the likely impact on these revenues in 2008–09.)

For VAT, we forecast that revenues will be £1.1 billion lower than forecast in the November 2008 PBR. Though the PBR did forecast that VAT revenues would fall in cash terms over the remaining months of 2008–09, the cash fall in VAT receipts that has occurred in the last two months of 2008 relative to the same months in the previous year was even greater than this PBR projection.

¹ Source: Table 2.4 of HM Revenue and Customs statistics (http://www.hmrc.gov.uk/stats/income_tax/menu.htm).

Table 6.3. Comparison of Green Budget and HM Treasury forecasts for current receipts, 2008–09 and 2009–10

£ billion	2008–09		2009–10	
	PBR Nov. 2008	Green Budget Jan. 2009	PBR Nov. 2008	Green Budget Jan. 2009
Income tax (net of tax credits)	151.2	147.1	145.2	143.4
National Insurance contributions	97.7	97.7	100.8	100.5
Value added tax (VAT)	82.6	81.5	72.6	70.5
Corporation tax (net of tax credits)	44.9	45.0	41.7	40.0
Petroleum revenue tax	2.6	2.6	1.5	1.5
Fuel duties	25.1	25.1	26.2	26.2
Capital gains tax	4.9	3.9	2.4	2.4
Inheritance tax	3.1	3.1	2.4	2.4
Stamp duties	8.3	7.6	6.9	6.7
Tobacco duties	8.2	8.2	8.2	8.2
Spirits duties	2.3	2.3	2.5	2.5
Wine duties	2.8	2.8	2.9	2.9
Beer and cider duties	3.4	3.4	3.3	3.3
Betting and gaming duties	1.5	1.5	1.4	1.4
Air passenger duty	1.9	1.9	1.9	1.9
Insurance premium tax	2.3	2.3	2.5	2.5
Landfill tax	0.9	0.9	1.2	1.2
Climate change levy	0.7	0.7	0.7	0.7
Aggregates levy	0.4	0.4	0.3	0.3
Customs duties and levies	2.6	2.6	2.8	2.8
Total HM Revenue and Customs	447.1	440.5	427.5	421.4
Vehicle excise duties	5.8	5.8	6.0	6.0
Business rates	23.5	23.5	24.6	24.6
Council tax ^a	24.6	24.6	25.7	25.7
Other taxes and royalties ^b	15.7	15.7	15.9	15.9
Net taxes and NI contributions^c	516.6	510.1	499.6	493.6
Accruals adjustments on taxes	–3.1	–3.1	2.5	2.5
Less Own resources contribution to EU budget	–4.3	–4.3	–4.8	–4.8
Less PC corporation tax payments	–0.2	–0.2	–0.2	–0.2
Tax credits adjustment ^d	0.7	0.7	0.7	0.7
Interest and dividends	7.7	7.7	8.1	8.1
Other receipts ^e	28.0	28.0	29.5	29.5
Current receipts	545.5	538.9	535.5	529.4

a. PBR figures are based on stylised assumptions rather than government forecasts, as council tax increases are determined annually by local authorities, not by the government.

b. Includes VAT refunds and money paid into the National Lottery Distribution Fund.

c. Includes VAT and the traditional ‘own resources’ contributions to the EU budget.

d. Tax credits that are scored as negative tax in the calculation of ‘Net taxes and NI contributions’ but expenditure in the National Accounts.

e. Includes gross operating surplus and rent; net of oil royalties and business rates payments by local authorities.

Sources: PBR forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); this table is similar to table B13 on page 203. Authors’ calculations.

For stamp duty revenues, we take account of the Treasury PBR forecast that housing transactions in 2008–09 will be running at just below half their 2007–08 levels, the latest data from the Nationwide house price index, which suggest that prices fell 15.9% in 2008, and the roughly 30% fall in the FTSE-100 index seen over the first nine months of this financial year. Combined, these suggest that stamp duty revenues will be £0.7 billion lower than forecast in the 2008 PBR.

For capital gains tax (CGT), we simply interpolate the Treasury's projected decline from £5.3 billion in 2007–08 to £2.4 billion in 2009–10, giving a projection of £3.9 billion in 2008–09. This is lower than the £4.9 billion forecast by the Treasury, but we note that a similar-sized fall in the stock market in 2001 led to a similar-sized decline in CGT revenues that the Treasury is forecasting over the two years, but that this decline crystallised sooner. There is also some downside risk to this forecast arising from the fact that the October 2007 PBR reforms to CGT increased the marginal tax rate on shareholding gains for many individuals.²

We assume that current spending will be in line with the Treasury's forecast from PBR 2008. This forecast that current spending in 2008–09 would be £586.7 billion – slightly above the Treasury's Budget 2008 forecast of £585 billion.

Over the first nine months of this financial year, central government current spending has been running 5.8% above the level seen in the same months last year. The PBR forecast implies the same increase over last year's level for the year as a whole.³ This suggests that the PBR forecast might be considered likely to be accurate. However, the relatively large errors in the forecasts for current spending in 2007–08 made by both the October 2007 PBR and the January 2008 IFS Green Budget (as shown in Table 6.1) highlight the uncertainty around these forecasts.

We also assume that the Treasury's PBR forecast for public sector net investment of £36.5 billion is correct, and therefore that total managed expenditure (TME) will be the same as the £623.2 billion forecast by the Treasury.

Borrowing in 2009–10

The November PBR contained a considerable upwards revision to the forecast for public sector net borrowing in 2009–10 – from forecast borrowing of £38 billion to forecast borrowing of £118.3 billion (a rise of £80.3 billion, see Table 6.4). Of this deterioration, £16.3 billion is the direct impact of the fiscal stimulus measures contained in the PBR. The remainder is almost entirely due to downwards revisions to the forecasts for underlying tax receipts. Part of the fiscal stimulus package in 2009–10 represents an increase in planned public sector net investment as some programmes have been shifted forward from 2010–11. This means that the deterioration in the forecast current budget between the 2008 Budget and the 2008 PBR – while still considerable – is slightly smaller, at £73.9 billion.

² A detailed discussion can be found in S. Adam, 'Capital gains tax', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap10.pdf>).

³ For IFS analysis of the monthly ONS/HM Treasury press releases on the public finances, see <http://www.ifs.org.uk/publications/browse?type=pf>.

Table 6.4. Comparison of forecasts for government borrowing, 2009–10

<i>£ billion</i>	Budget, Mar. 08	PBR, Nov. 08	Green Budget, Jan. 09	Differences in Green Budget forecast relative to:	
				Budget	PBR
Current receipts	608	535.5	529.4	-78.6	-6.1
Current expenditure ^a	612	613.4	613.7	+1.7	+0.3
Net investment	35	40.4	40.4	+5.4	0.0
Total managed expenditure	647	653.8	654.1	+7.1	+0.3
Public sector net borrowing	38	118.3	124.7	+86.7	6.4
Surplus on current budget	-4	-77.9	-84.3	-80.3	-6.4

A, In line with the National Accounts, depreciation has been included as current expenditure.

Sources: As Table 6.2.

The 2008 Green Budget forecasts a further slight deterioration in both public sector net borrowing and the current budget. We forecast a current budget deficit of £84.3 billion and net borrowing of £124.7 billion, which are both £6.4 billion worse than the Treasury's November 2008 PBR forecast.

Receipts and spending in 2009–10

The November 2008 PBR revised down current receipts in 2009–10 by £72.5 billion relative to the forecast made in the March 2008 Budget. An estimated £12.4 billion of this revision represented discretionary tax cuts aimed at reducing the depth and the length of the current recession. The largest slice of this was £8.6 billion arising from the temporary VAT cut – the total cost of this cut was estimated by the Treasury to be £12.4 billion, with £3.8 billion of this falling in 2008–09. However, most of the downwards revision came from underlying tax receipts. In particular, forecasts for underlying income tax, National Insurance (NI) contributions, VAT, corporation tax and stamp duties were all revised down substantially.⁴

On the spending side, there was a relatively small upwards revision to current expenditure of £1.4 billion between the March 2008 Budget and the November 2008 PBR. Within this, there was a £5.9 billion rise in forecast expenditure on social security benefits (with only a small fraction of this being due to PBR policy measures), which was largely offset by a £3.8 billion fall in central government debt interest payments due to lower interest rates than assumed previously. The PBR also revised up planned investment spending by £5.4 billion to £40.4 billion, from the £35 billion that had been forecast in the Budget. Further details of the changing outlook for the public finances between the March 2008 Budget and the November 2008 PBR can be found in Chapter 3.

Relative to the Treasury's forecast from the 2008 PBR, the 2009 Green Budget forecast for 2009–10 is that receipts will be £6.1 billion lower and spending £0.3 billion higher. The latter reflects the debt interest payments that will be required to service the additional borrowing that we forecast will be necessary in 2008–09 (discussed above).

As shown in Table 6.3, the three biggest discrepancies between the January 2009 Green Budget forecast and the November 2008 PBR forecast for receipts in 2009–10 are for receipts of VAT, income tax and corporation tax. We forecast that VAT revenues will be

⁴ For more details, see page 203, table B13 of HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

£2.1 billion below the PBR forecast, which is despite the fact that we have a similar outlook for VAT receipts in 2008–09 and that our estimates suggest that the temporary VAT cut will cost slightly less than the Treasury estimates.⁵

We forecast that income tax receipts will be £1.8 billion below the PBR forecast, less of a shortfall than the £4.1 billion we project for 2008–09. Our forecast for corporation tax receipts (which, due to the timing of tax payments, are dependent on both lagged and contemporaneous corporate profits) is on the basis that in nominal terms corporate profits in 2008–09 and 2009–10 exhibit falls in line with Morgan Stanley's central forecast of 14.7% and 19.2% respectively. Since this growth rate is below that implied by the Treasury's forecast for growth in underlying corporation tax receipts, the 2009 Green Budget baseline forecast for corporation tax receipts in 2009–10 is £40.0 billion, £1.7 billion lower than the Treasury's 2008 PBR forecast.

We are also forecasting lower NI contributions and stamp duty revenues in 2009–10 than the Treasury. However, the total difference is for receipts of these two taxes to be £½ billion below that forecast by the Treasury, so the differences are relatively small.

6.3 Medium-term prospects

Over the medium term, we expect the near-term gap between the Green Budget and PBR current budget balance forecasts to widen beyond 2009–10 to the end of the forecast horizon (Tables 6.5 and 6.6). The Green Budget forecasts a deficit £6.4 billion – or 0.4% of national income – bigger than the PBR in 2009–10, a gap that widens in nominal terms to £23 billion – or 1.3% of national income – in 2013–14. These differences are likely to be small relative to the uncertainties around both forecasts, judging from past forecasting performance and also from the fact that the current outlook is more uncertain than usual.

Over the coming five years, we expect the current budget balance to move from a deficit of 5.7% of national income in 2009–10 to a deficit of 2.4% of national income in 2013–14. Of this 3.3% of national income forecast improvement (£48 billion in today's terms), 1.8% of national income (£26 billion) comes from a forecast fall in current spending and 1.5% of national income (£22 billion) from a forecast increase in the tax burden. Over the same period, the PBR has the same reduction in current spending, but with a 0.8% of national income (£12 billion) larger forecast increase in the tax burden.

For current spending and public sector net investment, we assume that the Treasury keeps to the cash spending totals set out in the November 2008 PBR for 2011–12, 2012–13 and 2013–14. This leads to spending continuing to fall as a share of national income and, as described in Chapter 9, given realistic assumptions about social security, debt interest and other 'annually managed expenditure', would lead to no real increase in resources being available for public-service spending departments. Our baseline forecast is for debt to be higher than the PBR forecast (see Table 6.6). This implies that debt interest payments would also be likely to be higher than the Treasury has assumed. If this were to be the case, keeping to the same overall cash spending plans as laid out in PBR 2008 would, under our baseline forecast, imply tighter plans for spending on public services as more spending would need to be devoted to servicing the stock of debt.

⁵ Estimates provided in Chapter 10 suggest that over the whole 13 months this change will cost £12.0 billion rather than the PBR estimate of £12.4 billion.

Table 6.5. Medium-term public finance forecasts under Pre-Budget Report 2008 assumptions – £ billion

<i>£ billion</i>	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Green Budget forecasts						
<i>Current budget</i>						
Current receipts	538.9	529.4	564	604	645	685
Current expenditure ^a	586.7	613.7	650	675	702	729
Surplus on current budget	-47.8	-84.3	-86	-71	-57	-44
<i>Capital budget</i>						
Net investment	36.5	40.4	33	33	33	33
Public sector net borrowing	84.3	124.7	119	104	90	77
HM Treasury forecasts						
<i>Current budget</i>						
Current receipts	545.5	535.5	576	621	664	708
Current expenditure ^a	586.7	613.4	649	675	702	729
Surplus on current budget	-41.2	-77.9	-73	-54	-37	-21
<i>Capital budget</i>						
Net investment	36.5	40.4	33	33	33	33
Public sector net borrowing	77.6	118.3	105	87	70	54

a. In line with the National Accounts, depreciation has been included as current expenditure.

Sources: Authors' calculations. Treasury forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); this table is similar to table B10 on p. 198.

Table 6.6. Medium-term public finance forecasts under Pre-Budget Report 2008 assumptions – % of national income

<i>% of national income</i>	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Green Budget forecasts						
<i>Current budget</i>						
Current receipts	36.8	35.8	36.4	36.9	37.2	37.3
Current expenditure ^a	40.1	41.5	41.9	41.2	40.5	39.7
Surplus on current budget	-3.3	-5.7	-5.5	-4.3	-3.3	-2.4
<i>Capital budget</i>						
Net investment	2.5	2.7	2.1	2.0	1.9	1.8
Public sector net borrowing	5.8	8.4	7.7	6.4	5.2	4.2
Public sector net debt	41.6	49.1	54.6	58.2	60.7	62.1
HM Treasury forecasts						
<i>Current budget</i>						
Current receipts	37.3	36.2	37.2	37.9	38.3	38.6
Current expenditure ^a	40.1	41.4	41.9	41.2	40.5	39.7
Surplus on current budget	-2.8	-5.3	-4.7	-3.3	-2.2	-1.1
<i>Capital budget</i>						
Net investment	2.5	2.7	2.1	2.0	1.9	1.8
Public sector net borrowing	5.3	8.0	6.8	5.3	4.1	2.9
Public sector net debt	41.2	48.2	52.9	55.6	57.1	57.4

a. In line with the National Accounts, depreciation has been included as current expenditure.

Sources: Authors' calculations. Treasury forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); this table is similar to table B11 on p. 198.

Keeping to these spending totals would be likely to have implications for the government's aspirations, such as those to reduce child poverty, to earnings-index the basic state pension and to improve public services.

On the receipts side, the Green Budget forecast is for lower growth in receipts as a share of national income in each year after 2009–10 than forecast in the November 2008 PBR. Over this period, we forecast that in nominal terms receipts will grow by 6.7% a year on average; in contrast, the PBR forecasts that they will grow by 7.2% a year on average. This compares with assumed average annual growth in nominal national income of 5.5% a year. The next subsection discusses the composition of receipts in more detail.

The Green Budget forecasts for net investment are in line with the PBR ones throughout the forecast period. Consequently, the profile for public sector net borrowing over the medium term tracks that of the current budget, with borrowing in every year being higher under the Green Budget forecasts than under the PBR forecasts.

The higher borrowing forecasts mean that we have higher forecasts than the Treasury for public sector net debt right through to 2013–14. Our forecast suggests that public sector net debt will move above 60% of national income in 2012–13 and continue to rise.

Breakdown of medium-term revenue projections

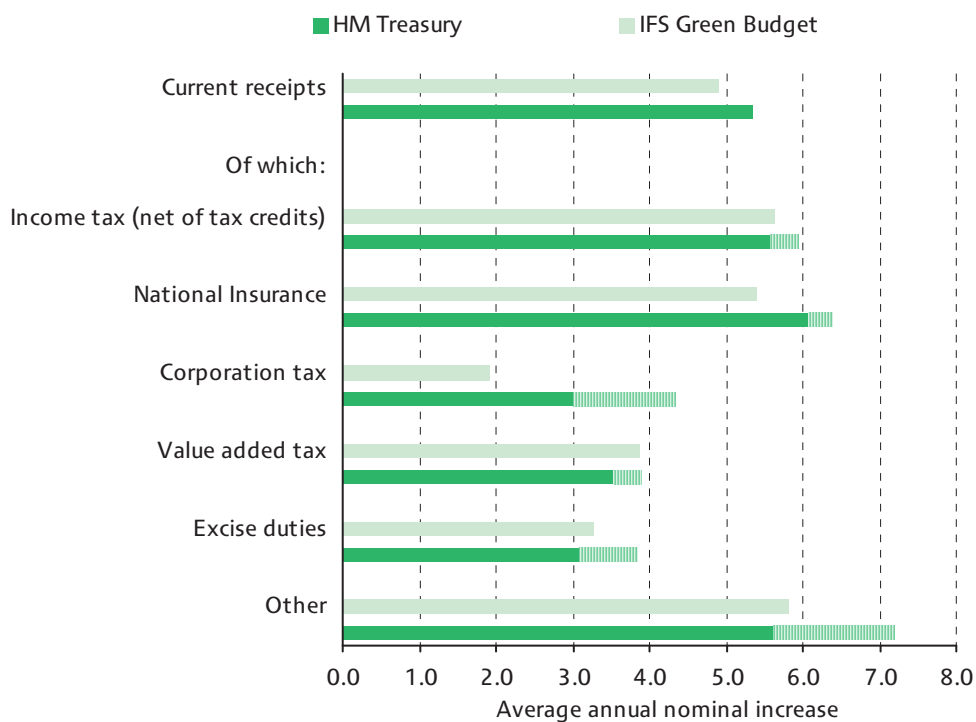
Figure 6.1 shows the average annual nominal growth rate for each major component of tax revenues under the Green Budget projection over the period from 2008–09 to 2013–14. These are compared with the Treasury's November 2008 projections. Comparing the two medium-term projections is hampered by a lack of availability of detailed forecasts from the Treasury, since the PBR only shows limited information on the composition of its medium-term revenue projections and rounds revenues from each of the categories to the nearest 0.1% of national income. As a result, a lower and upper bound on the Treasury's projection are shown in the graph (the range between these bounds being shown by the striped region).

Overall, the Green Budget projection is for slightly lower growth in tax (and non-tax) revenues from a slightly lower base (as detailed in Table 6.3). Between 2008–09 and 2013–14, the Green Budget forecasts show slightly weaker growth in NI contributions and, in particular, corporation tax. On all the other categories of taxes, the January 2009 IFS Green Budget projection is for growth in receipts in line with that projected in the Treasury's 2008 PBR.

Figure 6.2 provides more detail on the differences in outlook for revenues from corporation tax and petroleum revenue tax over the medium term. The PBR forecasts that these receipts will fall from 3.2% of national income in 2008–09 to 2.9% of national income in 2009–10. After this, receipts are forecast to climb to, and remain around, 3.1% of national income.

The Green Budget baseline assumes that instead these receipts will decline to 2.8% of national income in 2009–10 and then fall further to 2.4% in 2010–11 in line with the forecast implied by Morgan Stanley's projection for growth in corporate profits. Thereafter, the Green Budget baseline forecast assumes that corporation tax receipts recover gradually over time. For this, we assume that underlying revenues climb towards an assessment of the long-run average level of corporation tax receipts. This is the average seen over recent years, adjusted downwards in line with the fact that the 4%

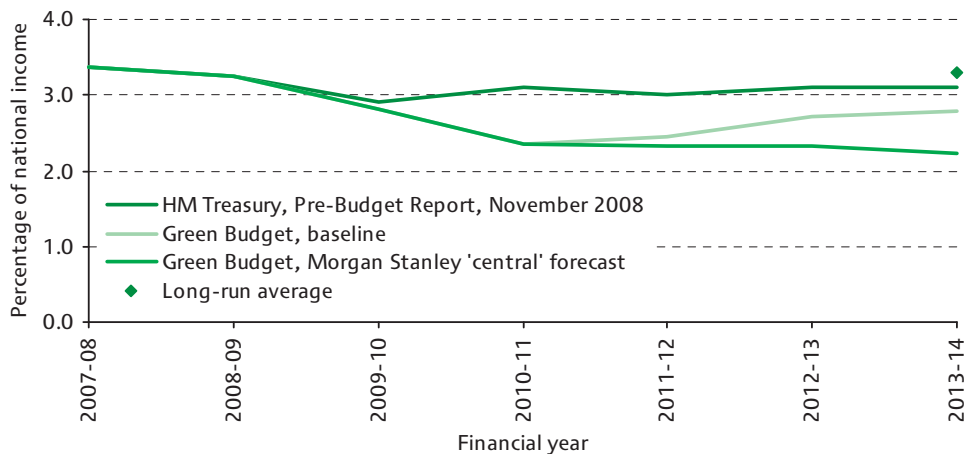
Figure 6.1. PBR and IFS forecasts for revenue growth, 2008–09 to 2013–14



Note: Corporation tax includes petroleum revenue tax.

Sources: Authors' calculations. Treasury forecasts from HM Treasury, 2008 Pre-Budget Report, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

Figure 6.2. Forecasts for corporation tax receipts under HM Treasury and Green Budget assumptions



Notes: Corporation tax includes petroleum revenue tax. Morgan Stanley central forecast is for lower nominal national income in all years from 2009–10 onwards than HM Treasury Pre-Budget Report forecasts suggest. Sources: Authors' calculations. Treasury forecasts from HM Treasury, 2008 Pre-Budget Report, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

decline in trend output that the Treasury estimates has occurred between Summer 2007 and Summer 2009 is likely to lead to a disproportionate decline in the hitherto relatively profitable financial sector. For this, we assume that the size of the financial sector is reduced by one-eighth from 8% of national income to 7% of national income. This reduces long-run corporation tax receipts as the financial sector has historically contributed about a quarter of corporation tax revenues.⁶

A more pessimistic view of the outlook for corporation tax receipts is shown by the Morgan Stanley 'central' forecast (discussed in more detail in Section 6.4). This suggests that after falling to 2.2% of national income, these revenues would stabilise at that level, which would be 0.9% of national income (£13 billion in today's terms) below the medium-term PBR 2008 forecast.

Uncertainties around the baseline Green Budget forecast

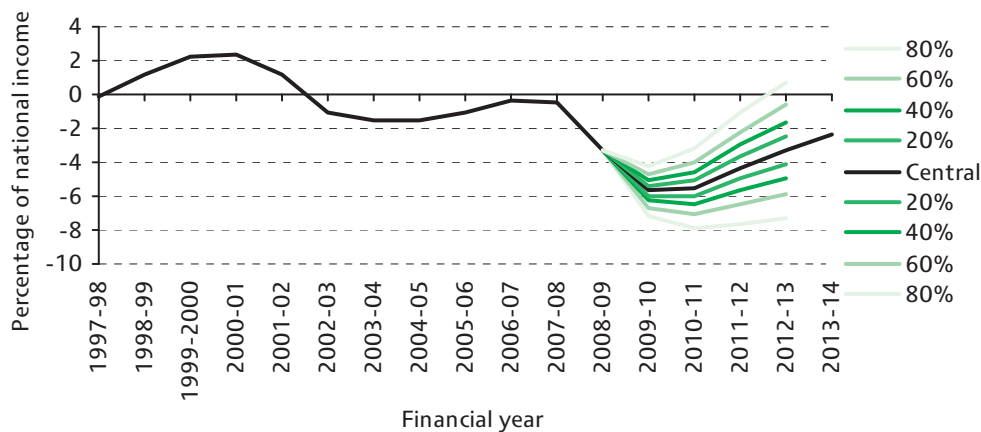
Public finance forecasts are by their nature uncertain and it is important to acknowledge this uncertainty when presenting them, in particular when interpreting point estimates for future deficits and debt. The further ahead forecasts are made, the larger the degree of uncertainty. Figure 6.3 presents a probabilistic fan chart for the Green Budget forecast for the evolution of the current budget over the next four years, with the forecast for 2008–09 taken as given. The fan chart assumes that the Green Budget forecasts will be right on average (and so are the best forecasts available) and that they are as accurate as the Treasury's forecasts have been in the past. If the Green Budget forecasts were less accurate than the Treasury's, the fan charts would be wider, while if they were more accurate then the fan charts would be narrower.

The black line shows the central Green Budget forecast – it is assumed that there is a 50% chance that the outcome will lie above this line and a 50% chance that it will lie below, as the central forecasts are (by definition) assumed to be right on average. The darkest green lines on either side of the central forecast denote the range of outcomes within which there is a 20% probability that the outcomes will lie. As uncertainty increases with the time horizon, these lines fan out. To the extent to which the current economic circumstances make the outlook more uncertain than typically, the fans in these figures should be considered as being too narrow.

The central forecast for 2009–10 is for a current budget deficit of 5.7% of national income and Figure 6.3 indicates that there is a 20% probability that the actual outcome will be a deficit of between 6.0% and 5.4% of national income. In 2012–13, the central forecast is for a deficit of 3.3% of national income – but the greater uncertainties in forecasting four years in advance mean that we can only be 20% certain that the outcome will lie within the much larger range of –4.1% to –2.5% of national income. The 40%, 60% and 80% lines bound the ranges within which there is a 40%, 60% or 80% probability that the outcome will eventually lie. Therefore, there is a 10% probability that the outcome will lie above the upper 80% line and a 10% probability that it will lie below the lower one. Under the Green Budget baseline forecast, there is an estimated 15% probability that, on unchanged policies, the current budget will be in surplus in 2012–13, but a 19% probability that it will be in deficit by more than 6% of national income.

⁶ Financial companies, excluding life assurance, paid 27% of mainstream corporation tax in 2006. Source: Table 11.2 of HMRC statistics (http://www.hmrc.gov.uk/stats/corporate_tax/menu.htm). Financial services were 7.6% of GDP in 2007. Source: ONS National Accounts Blue Book.

Figure 6.3. Probabilities of current budget balance outcomes (Green Budget baseline)



Notes: Central projections are taken from Table 6.6 and assume that the Green Budget projection for 2008–09 is correct. Methodology for computing fan charts taken from C. Emmerson, C. Frayne and S. Love, ‘Updating the UK’s Code for Fiscal Stability’, IFS Working Paper W04/29, 2004 (<http://www.ifs.org.uk/publications/3163>).

A key conclusion of this analysis is that the difference between the central projections in the Green Budget and the PBR for budget balances and therefore for net debt is less significant than the uncertainty that lies around either, given past forecast performance.

6.4 Alternative macroeconomic assumptions

This section presents alternative forecasts under three different sets of macroeconomic assumptions from Morgan Stanley – a central scenario, a more pessimistic scenario and a more optimistic scenario.

Table 6.7 presents both the underlying economic growth and the assumed level of the economy relative to trend used by the Treasury and those presented by Morgan Stanley, as well as the five sets of public finance forecasts – the Treasury’s PBR forecasts, the Green Budget baseline forecasts, the Green Budget forecasts under the Morgan Stanley central macro forecasts, the Green Budget forecasts under the Morgan Stanley ‘pessimistic case’ forecast and the Green Budget forecasts under the Morgan Stanley ‘optimistic case’ forecast.

The Treasury forecasts that national income will shrink by ¼% in 2008–09 and a further ½% in 2009–10. After that, it projects growth of 2% in 2010–11 and 3% a year thereafter. This path leads to the estimated output gap not being closed until one year after the end of the forecast horizon, in 2014–15.

Under the first alternative Green Budget scenario (the Morgan Stanley central case), there is slightly weaker growth in 2008–09, slightly stronger growth in 2009–10, and similar growth in 2010–11 and 2011–12. From 2012–13 onwards, the economy is forecast to grow less strongly, as it is estimated that the economy will already have returned to trend activity (and in fact would move slightly above trend from 2011–12 onwards).

Table 6.7. Public finance forecasts under various macroeconomic scenarios

	2008– 09	2009– 10	2010– 11	2011– 12	2012– 13	2013– 14
Treasury Pre-Budget Report forecasts						
GDP growth	–¼	–½	2	3	3	3
Output gap (% of potential GDP)	–0.3	–1.5	–1.9	–1.3	–0.7	–0.1
<i>Public finance forecasts (% of GDP)</i>						
Current budget surplus	–2.8	–5.3	–4.7	–3.3	–2.2	–1.1
Cyclically-adjusted current budget surplus	–2.8	–4.4	–3.4	–2.3	–1.6	–1.0
Net borrowing	5.3	8.0	6.8	5.3	4.0	2.9
Net debt	41.2	48.2	52.9	55.6	57.1	57.4
Green Budget baseline						
GDP growth	–¼	–½	2	3	3	3
Output gap (% of potential GDP)	–0.3	–1.5	–1.9	–1.3	–0.7	–0.1
<i>Public finance forecasts (% of GDP)</i>						
Current budget surplus	–3.3	–5.7	–5.5	–4.3	–3.3	–2.4
Cyclically-adjusted current budget surplus	–3.2	–4.9	–4.3	–3.3	–2.7	–2.2
Net borrowing	5.8	8.4	7.7	6.3	5.2	4.2
Net debt	41.6	49.1	54.6	58.2	60.7	62.1
Morgan Stanley central case						
GDP growth	–½	–¼	2	3	2¼	2½
Output gap (% of potential GDP)	0.0	–1.5	–1.0	0.2	0.6	0.6
<i>Public finance forecasts (% of GDP)</i>						
Current budget surplus	–3.3	–5.7	–5.3	–4.6	–4.2	–3.9
Cyclically-adjusted current budget surplus	–3.6	–4.9	–4.5	–4.5	–4.5	–4.3
Net borrowing	5.7	8.4	7.4	6.7	6.1	5.8
Net debt	41.4	49.2	54.5	59.0	63.9	67.7
Morgan Stanley ‘pessimistic case’						
GDP growth	–¾	–2½	1	2	1½	2
Output gap (% of potential GDP)	1.0	–2.0	–1.4	–0.1	0.7	1.2
<i>Public finance forecasts (% of GDP)</i>						
Current budget surplus	–3.3	–6.5	–7.5	–7.5	–7.5	–7.5
Cyclically-adjusted current budget surplus	–4.2	–5.7	–6.4	–7.2	–7.8	–8.3
Net borrowing	5.7	9.3	9.7	9.7	9.6	9.6
Net debt	41.5	53.9	64.2	74.0	82.6	90.5
Morgan Stanley ‘optimistic case’						
GDP growth	–0	1¼	3	3¼	3	3½
Output gap (% of potential GDP)	–0.6	–1.4	–0.8	0.4	0.7	1.4
<i>Public finance forecasts (% of GDP)</i>						
Current budget surplus	–2.5	–4.7	–2.8	–0.5	0.8	1.8
Cyclically-adjusted current budget surplus	–3.5	–4.7	–2.0	0.2	0.7	1.3
Net borrowing	5.0	7.4	4.9	2.4	1.1	0.0
Net debt	40.2	45.6	47.3	46.6	45.7	43.6

Sources: Authors' calculations; Morgan Stanley; Treasury forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

The second alternative Green Budget scenario (the Morgan Stanley 'pessimistic case') assumes that the economy shrinks by ¾% in 2008–09 and then by 2½% in 2009–10. After that, the economy recovers only very slowly, and yet is forecast to be back above trend in 2012–13.

The final alternative Green Budget scenario (the Morgan Stanley 'optimistic case') assumes that the economy grows by 1¼% in 2009–10 and then is able to grow by 3% or more – i.e. faster than estimated growth in trend activity – throughout the period from 2010–11 through to 2013–14.

The Green Budget public finance forecasts using the Morgan Stanley central scenario show a similar current budget deficit in 2008–09, 2009–10 and 2010–11 to that under the Green Budget baseline scenario. However, because there is less estimated spare capacity in the Morgan Stanley central economic forecast than in the PBR 2008 economic forecast, this similar current budget deficit represents a greater cyclically-adjusted current budget deficit. For later years, both the current budget and the cyclically-adjusted current budget remain further below the Green Budget baseline and the current budget balance does not return to a deficit of less than 4% of national income until the last year of the forecast horizon.

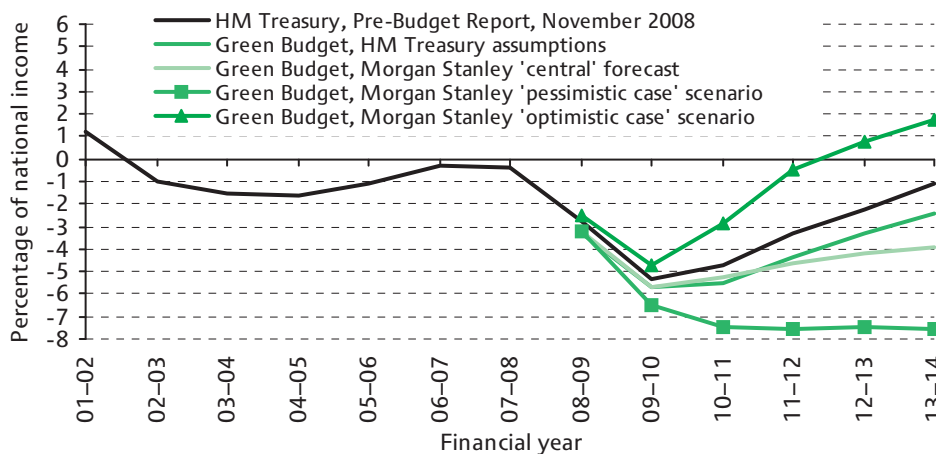
Under the Morgan Stanley 'pessimistic case' scenario, there is a larger current budget deficit from 2009–10 onwards than under the Morgan Stanley central scenario. By the end of the forecast period under this scenario, the current budget deficit is still running at 7.5% of national income.

A significantly more pleasing possible outcome for the public finances is suggested under the Morgan Stanley 'optimistic case' scenario. This would see the current budget returning to surplus as soon as 2012–13, and a balance on public sector borrowing by the end of the forecast horizon.

These forecasts for the current budget surplus are also compared in Figure 6.4.

Under the Morgan Stanley 'central case' scenario, net debt follows a similar path to that under the Green Budget baseline scenario through to 2011–12, but then increases more quickly. By the end of the forecast horizon, net debt is approaching 70% of national

Figure 6.4. Current budget balance forecasts

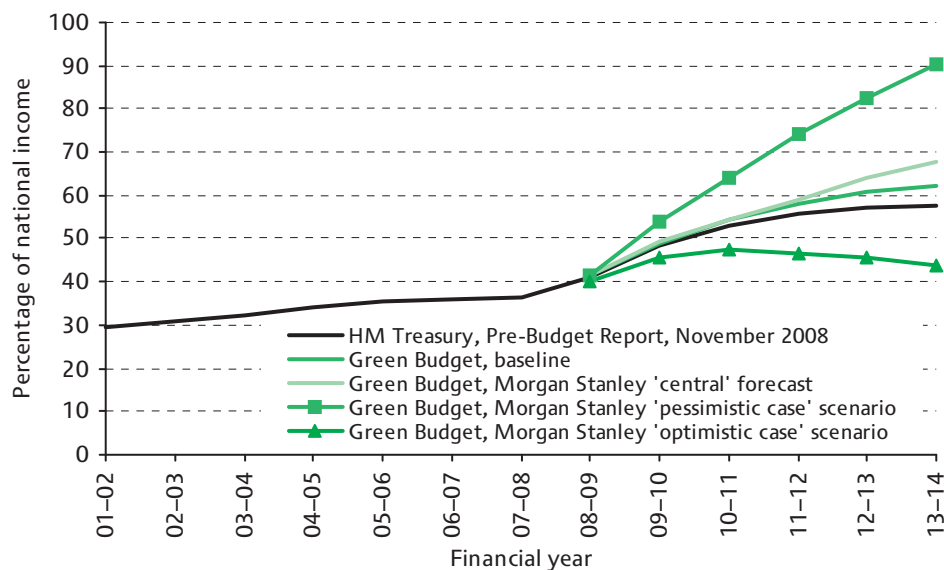


Sources: Authors' calculations; Morgan Stanley; Treasury forecasts from HM Treasury, 2008 Pre-Budget Report, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

income. Under the Morgan Stanley 'pessimistic case' scenario, net debt is forecast to move above 70% of national income as soon as 2011–12 and is projected to be above 90% of national income by the end of the forecast horizon. Under this scenario, the government would undoubtedly be forced to implement a combination of tax increases and spending cuts in order to stop investors fearing that debt is being allowed to develop along an explosive path. Under the Morgan Stanley 'optimistic case' scenario, net debt starts to fall as soon as the end of 2010–11, although even under this scenario it still reaches a peak of 47.3% of national income (which would be the highest level since 1977–78), and is still above 40% of national income at the end of the forecast horizon despite an overall public sector balance being achieved in 2013–14.

These forecasts are compared in Figure 6.5.

Figure 6.5. Public sector net debt forecasts



Sources: Authors' calculations; Morgan Stanley; Treasury forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

6.5 The Budget judgement

The November 2008 PBR was, in effect, two unusually large Budgets sandwiched together. The first was a giveaway Budget, cutting taxes and increasing spending in 2008–09 and 2009–10 to try to make the recession shorter and shallower than it otherwise would be. The second was a takeaway Budget, cutting public spending and increasing tax revenues as shares of national income from 2010–11 onwards to reduce the structural budget deficit and arrest the rise in public sector debt.

The key judgement – or, more accurately, judgements – in this year's Budget will be to decide whether or not to provide more of the same in both respects:

- First, should the government aim to increase the size of the short-term fiscal stimulus? And, if so, how?
- Second, should it announce measures now that will do more to strengthen the public finances once the economy has stabilised? And, if so, what?

The average view among independent forecasters is that the recession will be deeper and longer than the Treasury expected at the time of the PBR in November. This in itself would further increase its forecasts for government borrowing and debt – at least temporarily – by reducing tax revenues and increasing social security spending. The government is unlikely to contemplate offsetting any such deterioration by bringing forward its planned fiscal tightening; it is more likely to be wondering whether to add to it through a second fiscal stimulus package.

Whether that would be a good idea is a question that extends beyond the scope of the Green Budget. The government needs to think not just about tax and spending measures in isolation, but – together with the Bank of England – about the appropriate mix of fiscal policy changes, further interest rate cuts, less orthodox methods of monetary loosening ('quantitative easing') and further interventions in the financial sector designed to encourage banks to lend to individuals and businesses. If further discretionary fiscal easing were deemed a necessary and desirable part of the mix, then public support for that judgement by the Bank of England would certainly help to reassure people that it was economically rather than politically motivated.

The various options for fiscal easing were discussed extensively at the time of the PBR: increases in investment spending, increases in spending on public services, cuts in taxes, and increases in social security benefits and tax credits. The mix chosen would depend on how quickly the government would want it to take effect, how quickly it would want it to be reversed, and what impact it would wish it to have. The PBR stimulus package was explicitly designed to be 'timely, temporary and targeted'. This was one of the attractions of the VAT reduction, which was relatively quick to implement and to reverse. The choice of policies now may be affected strongly by whether the government wishes merely to increase the stimulus in the coming fiscal year, 2009–10, or whether it wishes to extend the stimulus for longer.

Additional capital spending would seem unlikely to play the major role in any new package. The fact that the government brought forward only a relatively modest amount of capital spending in the PBR testifies to the difficulty that officials see in getting good-quality investment projects moving quickly enough to play this role. Meanwhile, additional spending on public services has the problem that it is hard to reverse – it becomes incorporated in the baseline for future plans.

Tax cuts are an option. Chapter 10 argues that the temporary VAT reduction is likely to be more effective as a stimulus measure than some of its critics suggest. Even so, deepening or extending the reduction does not seem feasible or sensible respectively. The short-term impact on economic activity from cutting other taxes that only impart a stimulus by increasing incomes – rather than by changing the timing of spending as well – may be dulled if people save a relatively large proportion of the proceeds.

Increasing tax credit and social security payments would be vulnerable to the same problem, but poorer households are more likely to spend extra income than richer ones. One option would be to announce temporary payments to households receiving particular benefits; another would be to announce permanent increases and to recoup the revenue elsewhere once the fiscal tightening gets under way. We describe one possible reform in this spirit below. But, once again, an important consideration would be whether the government believes that the money could be delivered to people quickly enough to ensure that the stimulus was well-timed.

If the government were to decide to deliver a further fiscal stimulus – or even just to accommodate any automatic increase in borrowing if the economy performs less strongly than in the PBR forecast – this would make it even more important to reassure voters and investors that it is determined to get the public finances back into good shape as soon as it is safe and sensible to do so. This brings us to the second judgement – whether more needs to be done to strengthen the public finances from 2010–11 onwards.

The surge in borrowing and debt predicted in the PBR has forced the government temporarily to abandon its golden rule and sustainable investment rule. Indeed, Chapter 3 suggests that it may be 20 years or so before it would be in a position to readopt them in their original form. In the meantime, the Treasury has set itself a ‘temporary operating rule: to set policies to improve the cyclically-adjusted current budget each year, once the economy emerges from the downturn, so it reaches balance and debt is falling as a proportion of GDP once the global shocks have worked their way through the economy in full’.⁷ In practice, the Treasury has interpreted this in the PBR as meaning that the cyclically-adjusted current budget balance should be back in balance and debt falling by 2015–16. As we describe in Chapters 2 and 3, on the Treasury’s own forecasts this requires a combination of spending cuts and tax increases raising 2.6% of national income (or around £38 billion in today’s terms) by that year.

Our central forecast, based as far as possible on the macroeconomic assumptions used in the PBR and described earlier in this chapter, does not show the public finances improving rapidly enough to achieve this objective on the government’s current policy plans and projections. By 2013–14, we estimate that revenues would be running around 1.3% of national income or £18 billion in today’s terms lower than the Treasury expects. The current budget balance and public sector net borrowing would be adrift by similar amounts, reflecting our assumption that spending will evolve broadly in line with the PBR forecasts (with the exception of modest additional debt interest payments in 2009–10 and 2010–11). Simple extrapolation suggests that the gap at the end of the Treasury’s PBR ‘illustrative projections’ in 2015–16 might be 1.5% of national income or £22 billion in today’s money.

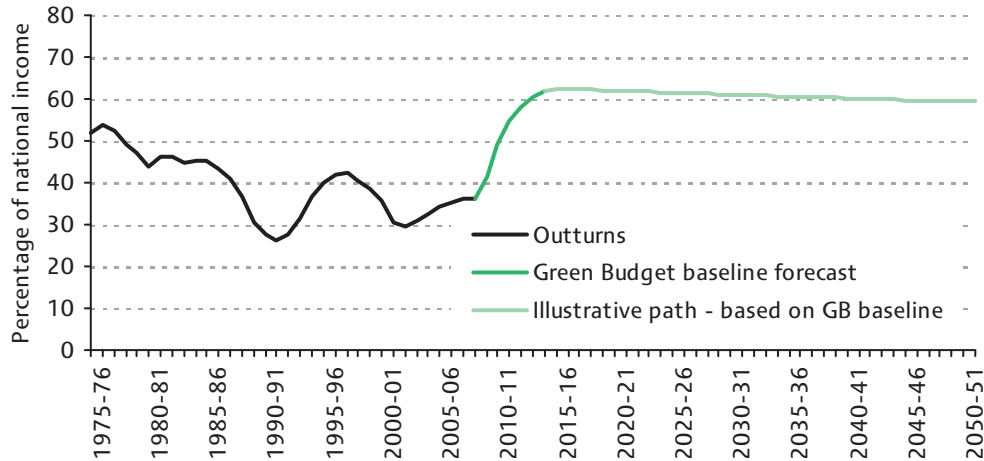
In the absence of any offsetting policy changes, this would push net debt above 62% of national income in 2013–14. Adopting the analysis in Chapter 3, and assuming (i) that government borrowing costs remain at current levels and (ii) that the structural deterioration in borrowing remains 1.5% of national income beyond 2015–16, public sector net debt would peak at 62.5% of national income in 2014–15, with debt interest payments in that year absorbing an extra 0.2% of national income. Public sector net debt would then remain around 60% of national income well into the longer term, as shown in Figure 6.6.

The broad message is that for this or a future government to expect to achieve the improvement in the public finances set out in the PBR would require some combination of spending cuts and tax increases sufficient to raise an extra £20 billion or so by the end of the next Parliament. There is considerable uncertainty around this estimate. But the cost of doing nothing, should action be required, is larger than the cost of announcing a tightening, only to find that it is not needed and can subsequently be reversed (or a fiscal loosening implemented in some other way). As discussed in Chapter 5, the widespread belief that the government did not conduct fiscal policy in the spirit of its own fiscal rules

⁷ Page 4, paragraph 1.13 of HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

during its second term, combined with the fact that the new temporary operating rule does not place much constraint on fiscal policy, means that it is particularly important that the government tries to retain as much confidence in its intentions as possible.

Figure 6.6. Illustrative projection for public sector net debt under the Green Budget baseline



Notes: Authors' calculations based on HM Treasury assumptions about further fiscal tightening in 2014–15 and 2015–16 from Pre-Budget Report 2008 and Green Budget baseline forecasts described above. The illustrative profile assumes that non-debt-interest spending and revenues remain constant as a share of national income from 2015–16 onwards. Average debt servicing costs are assumed to remain at 4.32% from 2013–14 onward, which implies that debt interest payments decline as a share of national income as the level of debt falls. This implies a strengthening of the current budget over time.

Source: Historic data from HM Treasury, *Public Sector Finances Databank*, December 2008 (http://www.hm-treasury.gov.uk/d/public_finances_databank.xls). Projections from 2008–09 onwards are authors' calculations.

Whether or not such a fiscal tightening would be sufficient to adhere to the 'temporary operating rule' depends on whether the Treasury has correctly assessed the underlying health of the public finances in the wake of the credit crunch. As the alternative macroeconomic scenarios described earlier illustrate, there are risks in both directions:

- Morgan Stanley's central scenario assumes that economic growth will be similar to that expected in the PBR in the short term, but weaker thereafter. If this scenario unfolds, we estimate that borrowing and debt would be higher at the end of the forecasting horizon than under the Treasury's macroeconomic scenario – although not dramatically so. But, importantly, this scenario implies that economic activity would have risen significantly above its sustainable level. This means that the headline increase in borrowing through to 2013–14 would understate the structural deterioration and the need for policy tightening. The pessimistic scenario shows a similar problem, on a bigger scale.
- Morgan Stanley's optimistic scenario paints a much prettier picture. Crucially, it implies that the credit crunch will not have led to a permanent loss of productive potential and that the economy can sustain a much stronger recovery. Under this scenario, it would turn out that the Treasury had overreacted in the PBR and that there was no need to put in place such a large structural tightening over the next few years to keep the public finances on a sustainable and acceptable path.

A further important uncertainty is whether the taxpayer will be left with a huge bill to pay for the government's interventions in the financial system. Chapter 8 argues that the

long-term cost to the taxpayer may well be small – and that there may even be a profit – but that the downside risks of big losses are considerable. Analysis by Ben Broadbent of Goldman Sachs suggests that the taxpayer could be left with a loss of around £120 billion or 8% of national income.⁸ This is, of course, a very large amount of money, but the annual cost of paying interest on this extra debt – assuming that borrowing rates remain at current levels – would add only around £5 billion to the level of borrowing each year. This is not trivial, but it is not large compared with the other costs of the credit crunch.

As we suggest in Chapter 3, the greatest source of anxiety in the Treasury is probably the possibility that the UK government may suddenly cease to be able to borrow as cheaply as it has been able to do in recent years. This would make the fiscal arithmetic much more unpleasant and the case for additional tightening measures – not just to bring about the tightening sought in the PBR, but to go further – much stronger. Chapter 7 suggests there is no need to panic and that there are good reasons to expect borrowing costs to remain subdued, but the possibility does suggest that the government should do what it can to reassure investors that it is ready to take the unpleasant steps that are necessary to bring debt down as quickly as it is safe to do so.

The bottom line from all this is that there is a compelling case for the government to announce measures now that would at least help bring about the scale of policy tightening sought in the PBR, once the economy has stabilised.

In principle, an additional fiscal tightening could be achieved by cuts in spending plans, fresh tax increases or a combination of the two.

If the additional tightening were to be achieved entirely through cuts in spending plans, this could be equivalent to reducing the growth rate of total public spending over the three years of the next spending review and the two subsequent years by 0.6 percentage points a year – in other words, from 1.1% to 0.5% on average in 2011–12, 2012–13 and 2013–14 and from 1.3% to 0.7% in 2014–15 and 2015–16. As we saw in Chapter 9, further cuts in spending plans over Spending Review 2010 would probably require real cuts on average in departmental budgets, once largely unavoidable increases in social security spending and debt interest payments are taken into account.

But, as we noted in Chapter 3, the PBR forecasts show an apparent desire by the government to return total spending and total tax revenues to broadly their pre-crisis levels as shares of national income by the end of the forecasting horizon. Our forecasts suggest that it will achieve this on spending, but that there will be a decline in the broad measure of the tax burden. This may suggest that the government would prefer to respond to a revenue shortfall primarily with revenue-raising measures. This would clearly be difficult politically (as would cutting spending further), but it is perhaps worth remembering that the tax increases in the PBR were only a tenth the size of those announced in the 1993 Budgets combined, the last time a government – and a Conservative one at that – confronted a similar need for substantial fiscal tightening.

In the PBR, the government chose to raise revenue primarily through increases in National Insurance rates and – to a lesser degree – increases in income tax rates for those on incomes above £100,000. We also know that the government considered increasing the standard rate of VAT to 18.5%, which would have had the added advantage of making the stimulus package more powerful by further reducing the price of purchases during

⁸ Goldman Sachs client note, 21 January 2009.

the temporary cut relative to the price of purchases after it expires. Presumably, much of the focus would remain on these taxes if more revenue were needed.

As Chapter 11 explains, the government has needed to increase marginal income tax rates quite significantly on people with incomes above £100,000 to bring in a relatively small amount of additional revenue. We are carrying out further analysis of the potential to raise revenue from taxing high incomes, but it seems highly unlikely that this avenue alone could be relied upon to provide the bulk of the necessary tightening.

One possibility canvassed in Chapter 10 would be to pre-announce a broadening of the UK's unusually narrow VAT base – in other words, removing existing zero and reduced rates and taxing all consumer spending currently subject to those rates at the standard rate. This would be desirable on efficiency grounds, as it would remove economically costly distortions to people's spending decisions and firms' production decisions.

Zero and reduced rates are often justified as a way to help the less well-off (who spend a higher proportion of their budgets on zero- and reduced-rate items), but the bulk of the cash gains go to better-off households who consume more of these items in absolute terms. Because zero and reduced rates are an unnecessarily costly way of redistributing to the less well-off, we could raise revenue even after compensating poorer families on average for doing so. Chapter 10 suggests that a reform of this sort could raise more than £10 billion in extra revenues while protecting poorer families.

If the government felt that the timing was appropriate, such a reform could also contribute to a fiscal stimulus package if the compensatory increases in benefits and tax credits were paid to poorer families in advance of the tax increase. Our central estimate is that an additional tightening on top of this would also be required. Having moved to a uniform rate of VAT, then if the objective was to raise additional funds in approximate proportion to families' living standards and to introduce minimal additional distortions, a good way of doing this would be to increase this uniform rate of VAT from 17½%. Each 1 percentage point rise would raise around £6 billion a year in today's terms.

7. Funding government borrowing

David Miles, Laurence Mutkin and Owen Roberts (Morgan Stanley)

Summary

- The government's ballooning budget deficit will soon require it to issue debt on a scale last seen at the end of the Second World War. On its 2008 Pre-Budget Report projections, the government will have to issue about £630 billion in gilts over the next five years, £300 billion more than it expected at Budget time.
- But demand for government debt is likely to remain firm. UK households, insurance companies and pension funds may all wish to hold more gilts, but the main source of additional demand is likely to be banks looking for liquid assets with little risk attached.
- The state of the economy means that demand for short-dated gilts is strong relative to demand for long-dated gilts. The Debt Management Office can therefore help keep the cost of government borrowing down by issuing relatively more short-dated gilts while current market conditions persist.
- Taken at face value, recent movements in the credit default swap (CDS) market suggest that investors see a more-than-7% chance that the UK government will default on its debt. But this probably reflects unusual developments in this market rather than a genuine belief that there is a 1-in-15 chance of default.
- Firm demand for gilts – combined with a sensible approach to issuance from the Debt Management Office – should keep gilt yields low by historical standards, allowing a further decline in the average coupon paid on the outstanding stock of gilts. But there is clearly a risk that the surge in issuance could push gilt yields higher. Even if it does not, the total amount the government will have to pay in interest will rise because the stock of debt goes up so much.

7.1 Introduction

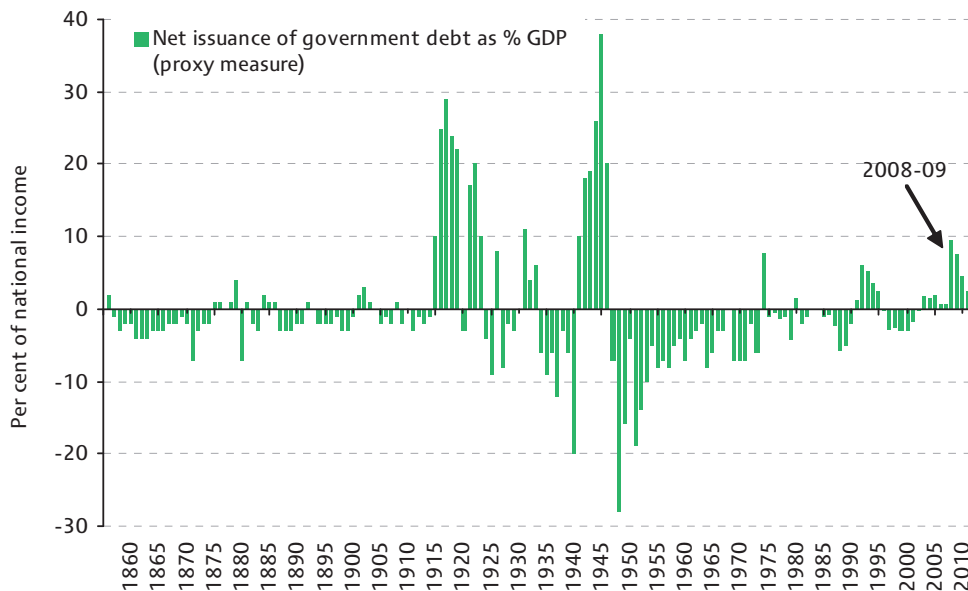
We begin this chapter by assessing the likely scale of gilt sales over the next few years (Section 7.2). We then analyse how the government might finance deficits that will be on a scale massively larger than had seemed likely as recently as last summer and which are likely to be of a magnitude that, in the last 150 years, has only been seen during the two world wars and during the inter-war depression. In Section 7.3, we analyse the risk that the scale of issuance might trigger sharp shifts in bond yields – a risk that has risen in an environment where the economic outlook has deteriorated sharply, sterling has depreciated significantly and the financial system looks fragile. In Section 7.4, we focus on debt management and analyse what the best way to finance the deficits might be.

7.2 The likely scale of debt issuance

Gross gilt issuance depends upon the central government net cash requirement, which is closely linked to public sector net borrowing and the scale of redemptions.¹ Based on the Treasury's November 2008 Pre-Budget Report (PBR) projections for borrowing, and making certain plausible assumptions about non-gilt sources of funding (National Savings inflows and changes in the stock of Treasury bills), it is likely that the scale of net and gross issuance of gilts will be enormously bigger than had been forecast in the March 2008 Budget. Gross gilt issuance was projected at the time of the PBR to be around £630 billion in 2008–09 to 2012–13, £300 billion (approximately 20% of national income) higher than projected in the 2008 Budget.²

The change in the stock of government debt, relative to GDP, over the next few years will be on a scale that is exceptional. Over the past 150 years, apart from during the two world wars, the only period when debt increased faster was during the inter-war slump (Figure 7.1).

Figure 7.1. Government net debt issuance



Notes: Series is changes in government debt as a percentage of GDP. Pre-1974 series is gross nominal liabilities of the National Loans Fund (formerly known as the national debt). 1974 onwards it is the general government gross debt. Data beyond 2008–09 use HMT forecasts (for general government gross debt as a percentage of GDP) and are for fiscal year rather than calendar year.

Sources: Morgan Stanley Research; DMO; HM Treasury.

¹ The net cash requirement can sometimes differ significantly from the net borrowing requirement. For example, the recapitalisation of the banks undertaken this financial year generated a cash requirement but did not count as net borrowing.

² This estimate does not include the impact of the Treasury's announcement on 19 January 2009 that it would create a Bank of England asset purchase facility, with authorisation for initial purchases of £50 billion financed by the issue of extra Treasury bills (http://www.hm-treasury.gov.uk/press_05_09.htm).

Part of the rise in gilt issuance, particularly this financial year, is due to the scale of the financial operations to support the banking sector. The central government net cash requirement for 2008–09 is now expected by the Treasury to be over £150 billion – just over £90 billion more than forecast in the 2008 Budget. But around £70 billion of this rise reflects rescue operations and recapitalisations that came in the wake of enormous problems in the banking sector. This comprises:

- £37 billion for government recapitalisation of RBS, Lloyds TSB and HBOS;
- £21 billion to refinance Bank of England loans to the Financial Services Compensation Scheme, made to facilitate the transfer of the deposits of Bradford & Bingley (and for subsidiaries of Icelandic banks);
- £5.7 billion to refinance the Bank of England’s working capital loan to Bradford & Bingley;
- £5.4 billion to cover retail deposits of Bradford & Bingley and the Icelandic bank subsidiaries, reflecting deposits above the current compensation limits.

For later years, however, higher cash requirements primarily reflect a sharp deterioration in projected tax revenues relative to government spending rather than support for the banking sector.

These latest, and enormously higher, projections for the scale of borrowing are based on particular Treasury assumptions about growth in the economy: output is assumed to fall by around 1% this year but then growth returns to trend over the next few years. But, on the latest Treasury forecasts, although the rate of growth does return to trend, there is a *permanent* loss in the level of output relative to what had been assumed prior to the 2008 PBR of around 4% of GDP (some £60 billion). Unlike in recent years, when we have considered the Treasury projections for growth in the near term to be optimistic, this set of economic forecasts on which the PBR makes its projections for borrowing look much more like our central forecast (see Chapter 4). But whether the forecast amount of tax revenue generated by a given path of real output (and corporate and household incomes and spending) is reasonable is a separate question (see Chapter 6).

Alternative profiles for the evolution of public sector borrowing, gilt issuance and the stock of debt based on different assumptions about economic growth and the tax take-out of national income are shown in Tables 7.1 to 7.4.

Table 7.1 shows estimates of the scale of public sector net borrowing under the five scenarios set out in Chapter 6:

1. the Treasury’s 2008 PBR forecast;
2. the IFS ‘base case’, in which the economy evolves largely as the Treasury expects, but where revenues are weaker;
3. the IFS forecast if the economy evolves according to Morgan Stanley’s ‘central case’ (see Section 4.4);
4. the IFS forecast if the economy evolves according to Morgan Stanley’s ‘pessimistic case’ (also see Section 4.4);
5. the IFS forecast if the economy evolves according to Morgan Stanley’s ‘optimistic case’ (also see Section 4.4).

Table 7.1. Public sector net borrowing

<i>£ billion</i>	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
2008 PBR	36.6	77.6	118.3	105	87	70	54
IFS base case	36.6	84.3	124.7	119	104	90	77
MS central case	36.6	84.2	124.3	114	108	104	103
MS pessimistic case	36.6	84.2	132.6	141	146	150	156
MS optimistic case	36.6	73.2	111.0	78	41	19	0

Sources: IFS; Morgan Stanley Research; HM Treasury.

Table 7.2. Public sector net debt

<i>% of GDP</i>	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
2008 PBR	36.3	41.2	48.2	52.9	55.6	57.1	57.4
IFS base case	36.3	41.6	49.1	54.6	58.2	60.7	62.1
MS central case	36.3	41.4	49.2	54.5	59.0	63.9	67.7
MS pessimistic case	36.3	41.5	53.9	64.2	74.0	82.6	90.5
MS optimistic case	36.3	40.2	45.6	47.3	46.6	45.7	43.6

Sources: IFS; Morgan Stanley Research; HM Treasury.

Table 7.3. Gilt issuance: the DMO's illustrative projections based on Pre-Budget Report forecasts

<i>£ billion</i>	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13
Central government net cash requirement	41.2	37.3	152.9	125.9	108	97	80
Redemptions	29.9	29.2	18.3	17	39	38	24
Financing requirement	71.1	66.5	171.2	142.9	147	135	104
Other sources of financing*	–8.6	–8.1	–24.8	–10.0	–10	–10	–10
Illustrative gross gilt sales	62.5	58.4	146.4	132.9	137	125	94

* Other sources of financing include net sales of National Savings and changes in the outstanding stock of Treasury bills. Both factors contribute strongly to funding the net cash requirement in 2009–10. Treasury bill issuance contributes around £14.5 billion to funding and National Savings and Investment over £10 billion. For future years, we assume that National Savings and Investments run at a higher level than on average over the past few years and contribute £10 billion, but that changes in the stock of Treasury bills, and other short-term financing arrangements, have zero net impact.

Sources: DMO, Morgan Stanley Research.

Table 7.4. Outlook for gross gilt issuance

<i>£ billion</i>	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13
<i>DMO/PBR illustrative gilt sales</i>	62.5	58.4	146.4	132.9	137	125	94
IFS base case	62.5	58.4	153.1	139.6	150.5	142	114
MS central case	62.5	58.4	153.0	139.2	146.1	146	128
MS pessimistic case	62.5	58.4	153.0	147.5	172.9	184	174
MS optimistic case	62.5	58.4	142.0	125.9	109.9	79	43

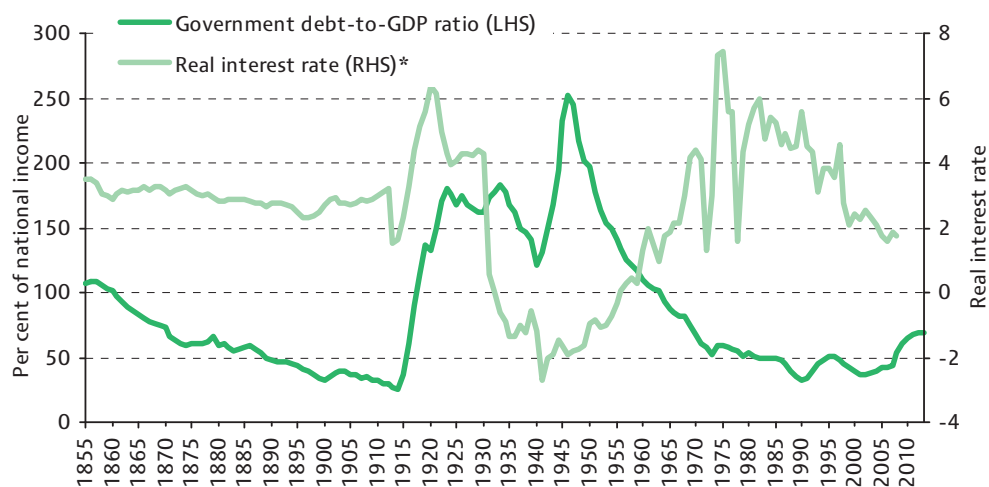
Note: The alternative projections in this table to the DMO/PBR illustrations are not really forecasts of what gilt sales would be, since they are based on an assumption of unchanged spending plans and tax rates.

Sources: IFS; Morgan Stanley Research; HM Treasury.

Table 7.2 shows how the stock of net debt relative to national income might evolve in each case. In this table, the impact of nationalisation of banks and of taking controlling interests in others is excluded; such operations might increase the gross liabilities of the government but would have a very much smaller, and much less clear, impact on net debt. Table 7.3 shows the Debt Management Office's (DMO's) illustrative projection of gilt issuance based on the Treasury's 2008 PBR forecasts. Table 7.4 compares this with the outlook for gilt issuance on the other four borrowing scenarios. The IFS base case and the Morgan Stanley central case show public sector net borrowing consistently a little higher than the Treasury expects over the next five years. This reflects a somewhat more pessimistic assessment of the likely level of tax revenue generated by the planned structure of the tax system. Assuming no offsetting changes elsewhere, the IFS base case and the Morgan Stanley central case imply that over the four years from April 2010, borrowing and gilt issuance would be on average £18 billion and £28 billion a year higher respectively than the DMO projections. On the Morgan Stanley 'pessimistic case' scenario, borrowing is higher still and consistently remains well above the PBR projections; while on the Morgan Stanley 'optimistic case' scenario, borrowing would be considerably lower. Under either of these two latter scenarios, large policy changes to offset the additional or lower level of borrowing would be likely, at least in the medium term.

Whichever of these projections turns out to be nearest to the truth, it is now clear that the scale of borrowing and gilt issuance will be vastly greater than had seemed likely – even

Figure 7.2. National debt as a percentage of national income and the real interest rate since 1855



Notes: Pre-1974 series is gross nominal liabilities of the National Loans Fund (formerly known as the national debt). 1974 onwards it is the general government gross debt. Data beyond 2008–09 are HMT forecasts (for general government gross debt as a percentage of GDP) and are for fiscal year rather than calendar year.

* Real interest rate series is the consol rate less long-term expected inflation. For calculation of the latter, we use an econometric model (based on past values of inflation) to project expected inflation at each point in time. For more details, see box 1 in D. Miles et al., *Where Should Long-Term Interest Rates Be Today?* 9 March 2005.

Sources: DMO; HM Treasury. Estimates of inflation expectations (and of real interest rates) during the years of the Second World War and immediately after are not reliable due to the impact of rationing.

on what had seemed pessimistic assumptions – a year ago.³ And while public debt will remain far lower as a share of national income than the levels reached after the two world wars, it will, within a few years, be higher than we have seen in almost 50 years.

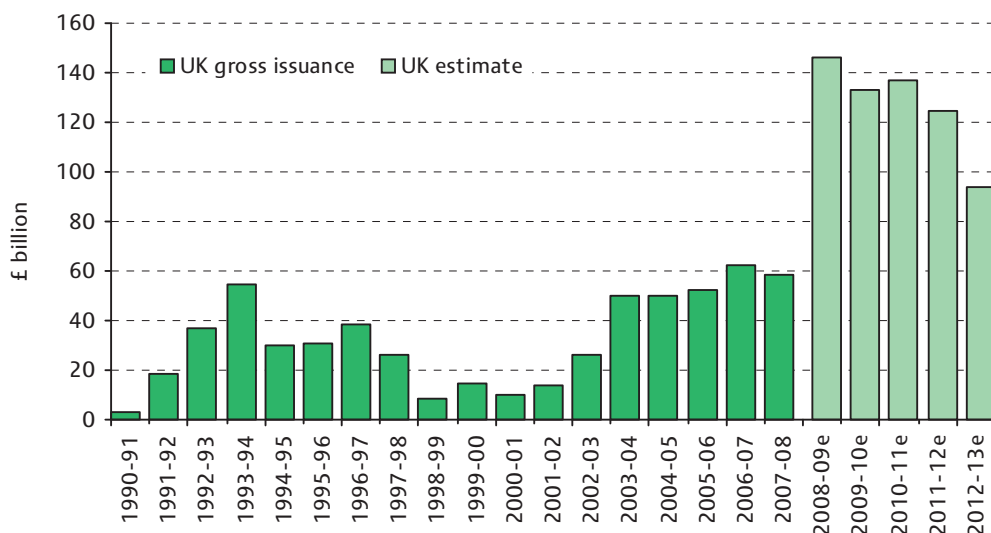
Long-term real interest rates in the last few years have, by the standards seen since the start of the 1970s, been very low (Figure 7.2). Over the period from the turn of the century, it has been striking how the UK government’s cost of borrowing has been falling – in both nominal and real terms – even though the amount it has borrowed has been rising and has consistently exceeded its own forecasts. But whether this will continue in the light of a huge rise in debt issuance is unclear. Gilt yields did not rise after the government revised up its projections of gilt sales so dramatically in the PBR. There was a rise in yields on longer-dated gilts after the bank support package announced on 19 January, but that still left nominal gilt yields at lower levels than they were just before the PBR. On 22 January, 10-year gilt yields were only around 3.5%, but they had been close to 4% just before the PBR. But can this last? Who will buy all the debt and on what terms?

7.3 Gilt issuance and borrowing costs

Gross gilt issuance is expected to average more than £130 billion a year for the next three years. This is about 2¼ times the gross issuance in 2007–08 of £58 billion, and around four times the average annual issuance between 1997–98 and 2007–08 of £34 billion (Figure 7.3).

Nor is the UK government alone. Other European economies and the US will see their governments undertake record or near-record debt issuance too. Additional competition for funds will come from the government-guaranteed bank bonds, a sector that did not exist until the bank rescue packages of October 2008. Government-guaranteed issuance

Figure 7.3. UK gross issuance forecast



Source: Morgan Stanley.

³See D. Miles and L. Mutkin, ‘Funding, debt management, and credit market problems’, in R. Chote, C. Emmerson, J. Shaw and D. Miles (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap6.pdf>).

by UK banks alone could reach £250 billion. Gross issuance from other governments will be very large too. US gross borrowing will be in excess of \$1,400 billion, on Morgan Stanley forecasts, and could rise to more than \$2,000 billion if President Obama's further stimulus package is enacted. Likewise, euro area governments' 2009 budgets already commit them to issuing about €760 billion; and if they follow through on all the support packages that have been announced, we calculate that this number could top €1,000 billion.

In short, the UK government is planning to borrow unprecedented sums during a period of great competition for investors' funds.

The effect of increased issuance on gilt yields

The logic of supply and demand would suggest that the vast increase in gilt supply will push prices down and yields up. But the historical evidence is that government issuance has little correlation with the level of yields. Figure 7.2 shows that if there is a relationship, it is more likely to be a perverse one – the real yield on long-term gilts has, if anything, tended to be lower when the stock of gilts is higher relative to national income.

Why is this the case? An increase in government bond issuance is often due to circumstances that are fundamentally supportive of government bonds. These include: recession or a sharp fall in economic growth; (and hence) falling expectations of future inflation; cuts in official interest rates; increased aversion to credit risk; and a flight to safe and liquid assets. And when stressed financial conditions make it difficult to obtain cash using other assets as collateral, gilts can become even more desirable because their high credit quality and good liquidity mean that they can be used as collateral both with the central bank and with the private sector.

So gilt yields will not necessarily rise due to the surge in government borrowing.

But the rising cost of insuring against UK government default in the credit default swap (CDS) market has raised fears that gilt yields will have to rise. The five-year UK CDS spread rose from less than 20bp to more than 100bp between August and December last year and increased to around 150bp by mid-January. On the face of it, this implies a probability of at least 7% that the UK government will default on its debt within five years – in which case, a large rise in gilt yields would surely be inevitable. But there are several reasons why the pricing of CDS is not now giving a reasonable measure of market expectations of the chances of the UK government defaulting (see Box 7.1).

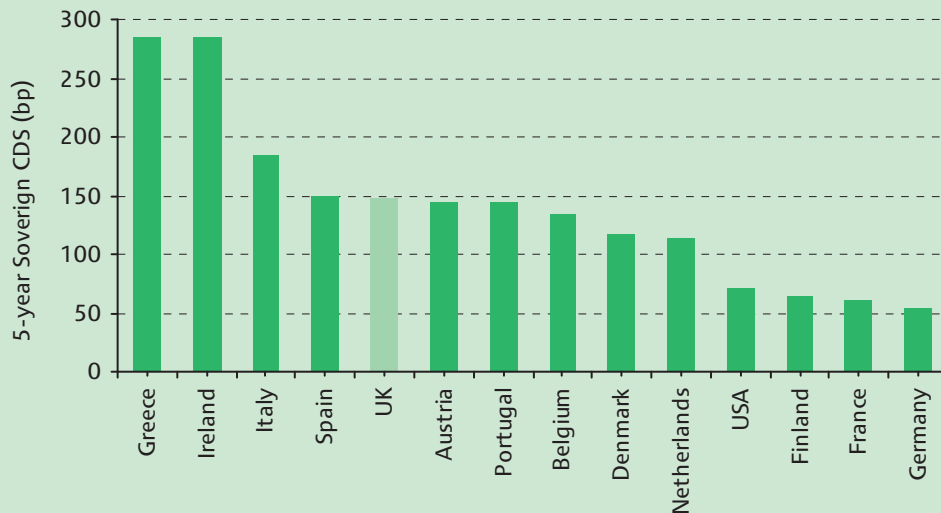
Box 7.1. The CDS market

The term 'credit default swap' is something of a misnomer: it is not actually a swap, in the sense that there is no regular two-way stream of cash flows. It is an agreement under which the buyer of default protection agrees to pay a fixed annual premium in return for the right to deliver a particular issuer's bond to the seller of default protection and receive its face value in exchange, in circumstances in which the issuer defaults in some way on its obligations as a debtor ('credit events'). The premium payable is known as the CDS spread, and the issuer to whose bonds the agreement refers is known as the reference entity.

Where the reference entity is a sovereign, the most important credit events are: failure to pay coupon or principal; the repudiation of or imposition of a moratorium on payment of debt; or the restructuring of its debt obligations.

The recent sharp widening of CDS spreads is not confined to the UK government. All government CDS spreads widened during the second half of 2008. The UK government CDS spread is higher than for many developed countries, but it is not an outlier (Figure 7.4).

Figure 7.4. Sovereign five-year CDS



Source: Morgan Stanley (as at 21 January 2009).

It is not plausible to interpret the widespread increase in government CDS premiums as a pure expression of the market's perception of the probability of a government default on its debt obligations. Using an expected recovery rate⁴ of 40%, a 150bp five-year CDS premium implies a more than 12% chance that the UK government will default within five years. Even assuming only a 10% recovery rate, a 150bp CDS spread implies a more-than-7% chance that the borrower will default. Such implied probabilities are at odds with the ratings assigned by credit rating agencies and with the behaviour of even the most conservative of investors (such as official reserves managers, who continue to own gilts).

The widening of government CDS spreads is explained by factors that are related, one way or another, to the credit crunch and its effects.

Under more normal market conditions, arbitrage should ensure that the cash bond market and an associated derivative market, such as CDS, will be closely aligned. But the credit crunch, which has increased the cost to some institutions of holding positions on their balance sheet, has made arbitrage expensive. Arbitrageurs who would normally act to take advantage of the widening of CDS spreads are unwilling or unable to do so.

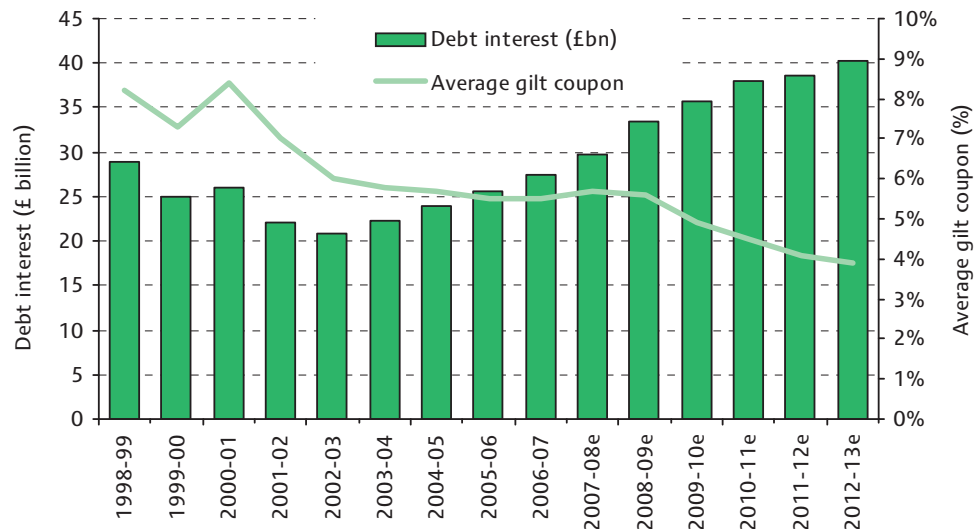
Thus, government CDS spreads have widened as risk managers (and speculators) have bought default protection, while potential arbitrageurs have found that their higher cost of balance sheet has made arbitrage between the CDS and the underlying government bond market prohibitively costly. The widening of UK CDS is no doubt partly a symptom of the government's deteriorating fiscal position; but it is much more a sign that the credit crunch continues to cause severe stresses and rather bizarre pricing in many financial markets.

⁴ Expected recovery rate = the percentage of face value expected to be recovered by the creditor in the event of the borrower defaulting.

The effect of increased issuance on the interest burden

The forthcoming surge in gilt issuance means that the burden of paying the interest on the stock of gilts will rise in the coming few years, even if gilt yields do not rise. Although the average coupon rate on the gilt market will fall quite significantly if yields remain around their present low levels, the total interest burden will rise by about a third to around £40 billion by 2012–13 (Figure 7.5).

Figure 7.5. Average gilt interest rate and annual debt service cost



Sources: DMO and Morgan Stanley estimates.

Further, the total interest burden will be more sensitive than usual to changes in yields during the coming few years, due to the large volume of new gilts that will come to the market. Every 25bp rise in gilt yields next year would add about £1.2 billion to the ongoing annual cost of debt service by 2012–13 (although this sensitivity would be lower if the yield did not rise until later years).

Sensitivity to changes in RPI inflation is much smaller: our central forecast assumes –1.3% RPI inflation for 2009–10 and 2.5% thereafter. If inflation were to be 100bp higher, the annual cost of debt service would rise by only £100 million or so by 2013–14.

But provided the yield on gilts does not rise very sharply, there will not be a big increase in the debt servicing burden relative to GDP. It is projected to increase from 2.1% in 2008–09 to 2.5% by 2012–13. Whether or not yields will need to rise obviously depends on the demand for gilts – the issue we turn to next.

Who is going to buy all the new gilts?

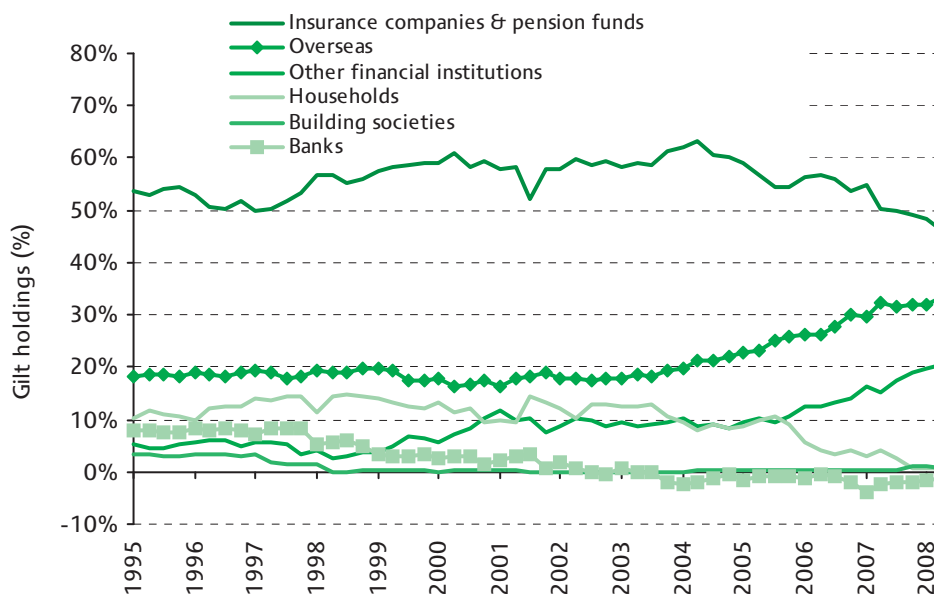
The unprecedented volume of gross gilt issuance raises concerns over whether sufficient buyers will be found at the many gilt auctions that will have to take place in the coming fiscal year. Failed gilt auctions (i.e. where the auction is undersubscribed) could lead to a disorderly repricing in the gilt market and bring into question the ability of the government to fund itself in the future.

Mindful of the increased risk of undersubscribed gilt auctions, the DMO has issued a consultation document⁵ on possible supplementary methods of distributing gilts, which we discuss in the next section.

Whether or not changes are announced to the process by which gilts are issued, most of the gilts sold during 2009–10 will probably be bought by domestic buyers. Indeed, there are several reasons to expect strong demand, from the banking sector in particular.

The composition of gilt holdings has changed considerably during the past few years. Overseas investors now hold about one-third of outstanding gilts, up from 25% five years ago. Of these, we estimate that some 40% (12% of the entire market) is held as reserve assets by official institutions. Insurance companies and pension funds remain the gilts market’s largest single constituency, but now account for only 46% of the market, down from 60% five years ago. Direct holdings by households have fallen from over 10% of the market to practically nothing, while other financial institutions, such as mutual funds, have increased their holdings to about 20% of the market. Banks and building societies have owned almost no gilts for the past 10 years. Indeed, DMO data show that banks have had negative holdings of gilts since 2003, i.e. they borrow more gilts on repo than they own (Figure 7.6). We look at each constituency in turn.

Figure 7.6. Breakdown of gilt holdings



Source: DMO.

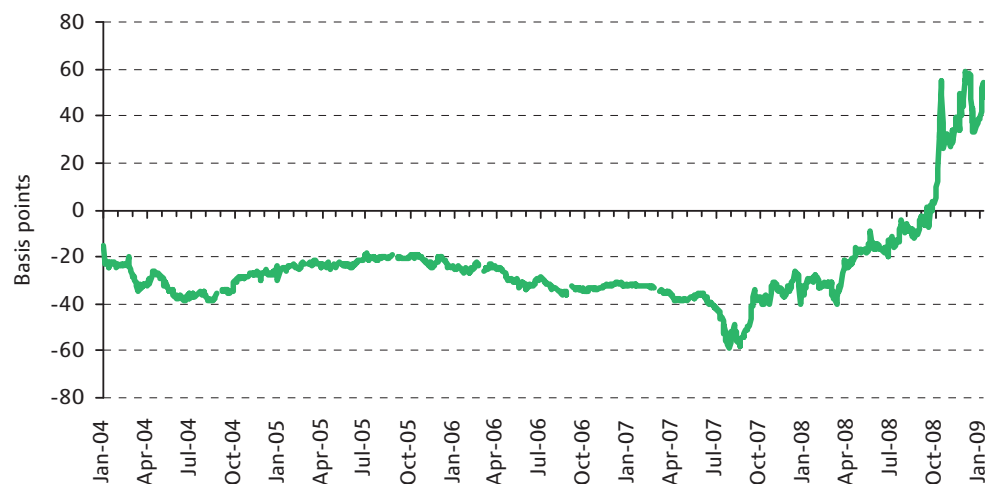
Overseas holders of gilts are unlikely to desert the market, but they will probably own a diminishing share. The slowdown in the world economy and decline in commodity prices will probably mean much slower growth in world official reserves, and therefore in official institutions’ buying of gilts. Private sector overseas holdings of gilts may mostly be held by international government bond funds. These could see further inflows, as end investors fight shy of risky assets, so we may see some increased demand from that quarter. But in the light of substantial currency volatility and recent sharp falls in sterling, we doubt that overseas gilt holdings will rise substantially in the coming financial year.

⁵ DMO, *Supplementary Methods for Distributing Gilts: A Consultation Document*, 17 December 2008 (<http://www.dmo.gov.uk/docs/publications/giltmarket/consultationpapers/cons171208.pdf>).

Households have run their direct gilt holdings down to negligible levels. Now, as falling property prices and high levels of indebtedness make it more pressing for households to rebuild their savings, and with risk-aversion still high, they may come back into gilts – particularly as deposit rates at banks fall towards 0%. A 2% of GDP rise in savings is worth about £30 billion – a substantial part of which could go into gilts, either as direct or indirect holding.

Insurance companies' and pension funds' holdings of gilts have plateaued in recent years, as these institutions have turned to the interest rate swap market to hedge their long-term liabilities. During the past half-year, however, long-dated gilt yields have cheapened significantly relative to interest rate swaps – another symptom of the effect of the credit crunch on the cost of balance sheet (Figure 7.7). This cheapening should entice pension funds to unwind their swaps and replace them with gilts, which could take their gilt holdings back up towards the previous highs of £250 billion, an increase of about £20 billion.

Figure 7.7. 30-year gilt yield less 30-year swap rate



Source: Morgan Stanley.

But it is from **banks** that the biggest rise in demand is likely to be seen. It seems ironic that the banking system, whose travails are directly and indirectly responsible for much of the explosion in gilt issuance, should be a major buyer of extra government debt. But owning gilts is likely to become more attractive for banks in the coming years for a number of reasons:

- First, gilts are very capital-efficient for regulatory capital purposes.
- Second, banks do not need much money to buy gilts: they can be financed at the Bank of England (or in the private sector) by borrowing against them as collateral.
- Third, if banks buy gilts to be held to maturity, they effectively incur no interest rate risk (because they do not need to be marked to market).
- Fourth – but perhaps most significantly – banks and building societies are likely to need a lot of gilts in order to fulfil their obligations under the FSA's proposed new liquidity regime, which is due to be implemented during the coming fiscal year and which will require them to hold a buffer of highly liquid, high-quality assets.

The details of the FSA's new liquidity regime, which applies to UK banks, building societies and many investment firms (and to branches of some foreign firms), are still to be determined.⁶ But the effects of the new regime are likely to be profound – and swift. Its aim is to reduce the risk of a financial institution failing because of inadequate liquidity; its intended implementation date is October 2009; and based on the consultation paper, its effect could be that the top 10 UK banks need to increase their holdings of government bonds by a total of £55–210 billion

The regulatory requirements may be much more modest than this when finalised, but a significant watering-down of the new liquidity requirements is not particularly likely in our view. The FSA 'make[s] no apology for tough prudential standards' and describes its proposed regime as 'far-reaching and robust; many institutions will need to significantly reshape their business model over the next few years as a result'. The consultation paper envisages that the top 10 UK banks will increase their government bond holdings by 1.4–5.4% of their aggregate balance sheet and quotes £6 trillion as the total size of banking assets.

The proposed FSA liquidity regime does not specifically require the banks to buy gilts. Any high-quality liquid assets will do – the consultation document identifies: gilts; bonds rated at least Aa3 issued by the countries of the European Economic Area (EEA), Canada, Japan, Switzerland and the US; and banks' reserves held with the Bank of England and with the central banks of the EEA, Canada, Japan, Switzerland and the US. Banks could choose to shrink their balance sheets aggressively, reducing the need for liquid assets. But it is realistic to assume that the new liquidity requirements will substantially increase banks' demand for gilts.

There is a more fundamental reason, besides liquidity, why banks might want to hold more gilts, and it reflects the forces that have driven the level of government borrowing up. The reluctance of banks to lend to households and companies because of rising (possibly excessive) fears of credit risks is exacerbating a downturn to which the government is responding by borrowing more. The government is doing some of the borrowing that the non-bank private sector is unable to do. This is a sensible response to a form of (at least potential) market failure – particularly as the government is able to borrow at rates of interest of under 4%, below the cost of debt available to most households and companies.

This is also a reason why 'Ricardian equivalence' – the belief that debt-financed tax cuts have no impact on the economy because they are offset by higher household saving in anticipation of future tax increases – will not hold. If the UK government uses its credit status to do the borrowing that some creditworthy companies and households cannot do, it will have real, and beneficial, effects. Banks unwilling to lend to households and companies may lend to the government, in which case the government is providing a useful role in intermediating funds.

Taking all this together, we conclude that potential demand for new gilts from insurance companies, households (directly or indirectly) and banks could easily reach £100 billion during 2009–10; it could be twice that, depending on how the FSA's new liquidity regime for banks is implemented. Importantly, a lot of this demand is likely to be quite insensitive to the absolute level of yields or perceived inflation risks. Rather, it will be

⁶ Financial Services Authority, *Strengthening Liquidity Standards*, Consultation Paper 08/22, December 2008 (http://www.fsa.gov.uk/pages/Library/Policy/CP/2008/08_22.shtml). The consultation period ends on 4 March 2009.

driven by relative value considerations (for pension funds) or by regulatory requirements (for banks). To the extent that the level of yields is relevant, the key incentive for buyers – be they households or banks – would be that money-market deposit rates remain low.

7.4 Optimal debt management

The DMO faces a big challenge, given the volume of gilts it needs to sell during the coming fiscal years. This raises two questions: how should the gilts to be sold be distributed between index-linked and conventional issuance and by maturity; and should the DMO supplement its auction programme with other issuance channels?

Distribution of gilt issuance

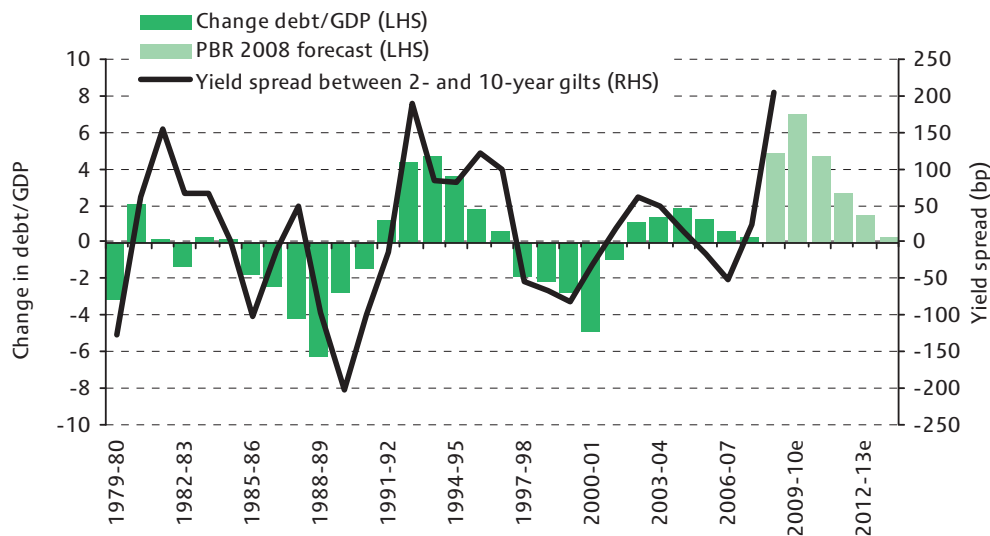
In deciding on how to distribute issuance, the DMO's remit is: 'to minimise, over the long term, the costs of meeting the government's financing needs, taking into account risk, whilst ensuring that debt management policy is consistent with the aims of monetary policy'. Historically, this has meant adjusting issuance across maturities in response to changes in the shape of the gilt yield curve (the difference between short- and long-dated gilt yields).

In addition, the government favours issuing index-linked gilts, and has a medium-term strategy (articulated in the foreword to the Debt and Reserves Management Report (DRMR) 2007–08) of skewing issuance towards long maturities. The rationale for this policy is that strong demand (from pension funds and insurance companies) for these sectors of the market will 'persist in the medium term and continue to influence the shape of the yield curve'.

The shape of the gilt yield curve is an important consideration for the DMO's issuance plans, as choices about which gilts to issue will affect future government financing costs. The steepening of the yield curve seen during the second half of 2008 should result in a greater weighting of issuance in shorter-dated bonds than has been customary in recent years.

The yield curve has steepened by about 2 percentage points during the past fiscal year. This is typical of periods when government debt is rising as a share of national income; and hence of rising gilt issuance (Figure 7.8). This relationship is explained by the circumstances during which gilt issuance increases – typically, economic slowdown, falling short-term inflation expectations and (therefore) lower Bank of England interest rates. Lower money-market rates and lower short-term inflation expectations drag down shorter-dated gilt yields relative to longer-dated gilt yields, which are more influenced by longer-term inflation expectations and supply and demand. So rising gilt issuance and a steeper yield curve tend to go together. With public sector net debt forecast by the Treasury to rise by 7% of national income in 2009–10, there will be continuing pressure on the gilt curve to stay steep or get steeper.

Figure 7.8. Change in government debt as a share of national income vs spread between 2- and 10-year gilt yield



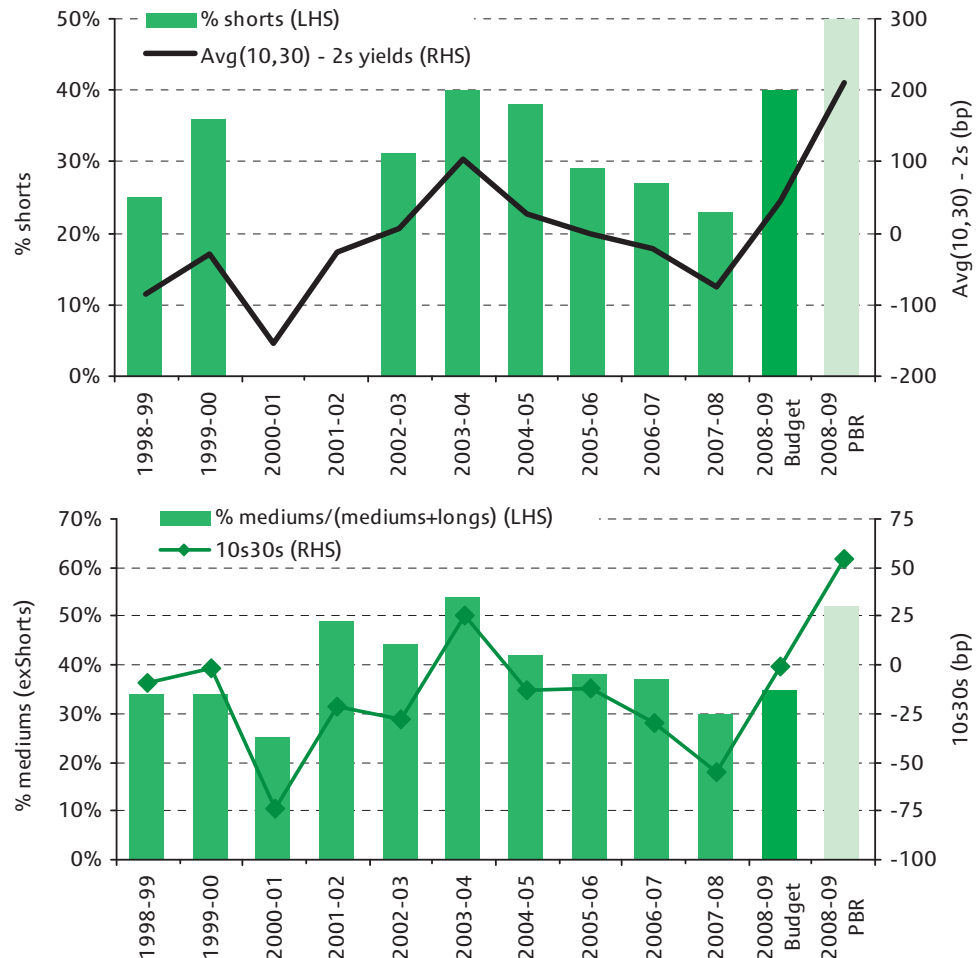
Source: Morgan Stanley.

The steepening of the yield curve, together with other factors, should encourage the DMO to weight gilt issuance to the short end of the conventional gilt curve in the coming fiscal year:

- **Cost of funding:** The steepening of the curve to date makes the cost of funding shorter- rather than longer-dated gilts relatively attractive (in contrast to recent years in which the yield curve has been rather flat).
- **Liability matching:** Many of the gilts being issued now could be repaid during the next few years if the banks quickly repay the preferred shares issued to the government under the Treasury's recapitalisation measures. This makes short-dated gilts the natural choice for liability matching.
- **Satisfying demand from banks:** The large demand for gilts expected from the banking system (see Section 7.3) should be concentrated in shorter-dated maturities. Shorter-dated gilts benefit more from lower price volatility than longer-dated bonds (which is important for liquidity); and they better suit the structure of banks' liabilities.
- **High borrowing needs:** The government's large borrowing needs militate in favour of issuing shorter-dated debt, for which demand is less uncertain than that for longer-dated debt, so that the risk of failing auctions is reduced.

The DMO has had a consistent track record of responding to changes in the yield curve slope by adjusting the relative issuance between shorts (0–7 years to maturity), mediums (7–15 years) and longs (greater than 15 years) – issuing more shorts when the yield curve is relatively steep and more longs when the curve is relatively flat. This is shown in Figure 7.9: the upper chart shows that the percentage of shorts issuance rises when the spread between the 2-year yield and the average of 10- and 30-year yields rises; and the lower chart shows that the percentage of medium issuance rises when the spread between 10- and 30-year yields rises.

Figure 7.9. Gilt issuance versus yield curve slope



Source: Morgan Stanley.

The DMO has remained true to form during the 2008–09 fiscal year. The percentages of conventional gilt issuance in shorts-mediums-long, envisaged at 40%-21%-39% at the Budget in March, shifted to 50%-26%-24% at the November PBR – with the differential between 2 and 10 year yields having steepened by about 140bp in the intervening period.

There has also been a significant change in index-linked issuance as a proportion of the total. A sharp fall in inflation expectations in the latter half of 2008 reduced demand for inflation protection; and in the PBR, the DMO increased index-linked issuance by much less than conventional issuance, taking index-linked issuance to back below 15% of total new issuance for the first time in five years, reducing the share of index-linked gilts in all debt to 26% this fiscal year (down from 30% last year) (Table 7.5).

Taken together, the steepening of the yield curve, the likely increase in the importance of banks as buyers of gilts, and the government’s medium-term policy of skewing issuance to long-dated maturities, mean that 2009–10 issuance is likely to be split as follows: 20% index-linked, 80% conventionals (of which 50% shorts, 25% mediums and 25% longs).

Table 7.5. Breakdown of gilt issuance by maturity and type

	<i>Conventional</i>								<i>Index-linked</i>		<i>Total</i> £bn
	0–7 years		7–15 years		15+ years		Total		%	£bn	
	%	£bn	%	£bn	%	£bn	%	£bn			
1990–91	40	1.1	33	0.9	8	0.2	81	2.3	16	0.5	3
1991–92	43	7.7	28	5.1	11	1.9	82	14.8	16	2.9	18
1992–93	39	14.2	28	10.1	15	5.4	81	29.7	17	6.3	37
1993–94	36	19.7	30	16.7	15	8.2	81	44.6	17	9.4	55
1994–95	35	10.3	29	8.7	15	4.6	79	23.7	17	5.1	30
1995–96	36	11.1	27	8.4	15	4.6	79	24.2	18	5.5	31
1996–97	37	14.4	25	9.8	16	6.2	78	30.3	18	6.9	39
1997–98	35	9.1	25	6.6	16	4.0	76	19.7	20	5.1	26
1998–99	38	3.1	24	2.0	15	1.2	77	6.3	21	1.8	8
1999–00	39	5.6	20	2.8	17	2.4	75	10.8	23	3.3	14
2000–01	39	3.9	16	1.6	17	1.7	73	7.3	25	2.5	10
2001–02	37	5.0	17	2.3	20	2.7	73	10.0	26	3.5	14
2002–03	36	9.4	18	4.7	19	5.0	72	19.0	27	7.0	26
2003–04	34	17.1	19	9.3	21	10.5	74	36.9	25	12.5	50
2004–05	37	18.6	14	7.1	23	11.5	74	37.2	25	12.4	50
2005–06	33	17.2	15	8.1	25	13.2	74	38.4	26	13.5	52
2006–07	28	17.5	19	11.9	25	15.6	72	45.0	27	16.9	63
2007–08	17	10.1	17	10.0	40	23.4	74	43.5	26	15.0	59
2008–09	43	62.8	23	33.1	21	30.5	86	126.4	14	20.0	146
2009–10e	40	57.6	20	28.8	20	28.8	80	115.2	20	28.8	144

Source: DMO; e = DMO estimate of total with Morgan Stanley estimates of breakdown.

Issuance techniques

The DMO has correctly identified that the coincidence of (a) the government’s need to sell very large quantities of gilts, and (b) the strains on gilt edge market makers’ (GEMMs) balance sheets imposed by the credit crunch, has significantly increased the risk that gilt auctions may be undersubscribed – or that they can only be covered at a very deep discount to the prevailing market price (the DMO calls this ‘execution risk’). This risk is particularly acute for index-linked and long-dated conventional gilt auctions, where the market is relatively less liquid and duration risk is relatively high, increasing the risk to GEMMs, and so potentially depressing auction participation.

To address this issue, the DMO has published a consultation document discussing supplementary methods for distributing gilts.⁷ These include:

- syndication – using a group of underwriters to place new deals (the DMO used this method in 2005 to launch the new 2055 index-linked bond);

⁷ DMO, *Supplementary Methods for Distributing Gilts: A Consultation Document*, 17 December 2008 (<http://www.dmo.gov.uk/docs/publications/giltmarket/consultationpapers/cons171208.pdf>).

- Dutch Direct Auction (DDA) – a variant on syndication developed by the Dutch State Treasury Agency, which effectively acts as its own lead underwriter, adjusting the pricing and size of a new issue in response to investor appetite;
- direct placement of gilts with end investors, in response to specific enquiries.

At Budget time, the DMO plans to announce which, if any, of these proposals will be adopted in 2009–10. In considering them, the key objective must be to ensure that the good functioning of the gilt market-making system is maintained.

The DMO has said that any supplementary distribution methods would be introduced only if they would be consistent with ‘the principles of openness, predictability and transparency that underpin debt management policy’ and ‘would not risk damaging the role of the GEMMs as the DMO’s primary gilt market intermediaries’.

Each of these distribution methods has its advantages and disadvantages. Syndication and direct placement, which inevitably put all non-participating GEMMs at an informational disadvantage versus those that participate in the deal, are likely to be unpopular with most GEMMs (and indeed other market participants). We doubt the DMO will feel that either would be consistent with the principles quoted above.

The DDA is more attractive because: the informational unfairness between GEMMs would be reduced; it might enable a new issue to be established with a bigger initial size than could safely be raised at an auction; and the auction could not ‘fail’ (i.e. be undersubscribed), as the DMO could vary the size of the auction according to demand. But the usefulness of the DDA method is limited: it would probably only make sense for new gilts (rather than re-openings of existing gilts), of which the DMO is unlikely to issue more than a handful in longs and index-linked during the year. And being able to vary the size of a particular auction, while making an undersubscribed auction less likely, is not much help when the aim is to borrow a lot of money.

The DMO’s move to smaller and more frequent auctions (what the DMO calls ‘mini-tenders’), alongside traditional auctions, has been well received during the second half of 2008–09. A decision to continue them would be likely to be popular among GEMMs and would go some way towards reducing the DMO’s ‘execution risk’. This is likely to be announced at the time of the Budget.

The DMO may well adopt DDAs for new issues of long-dated conventionals and index-linked gilts. But the majority of issuance will be taps, not new issues – so there may only be four or five DDAs in the coming year. The most likely reform is the increased use of mini-tenders in long gilts in particular.

7.5 Conclusions

The dramatic increase in expected gilt issuance over the next five years has fuelled fears that gilt yields will rise from their recent low levels, further increasing the future burden of public sector net debt interest payments beyond what would have been expected from the rise in the stock of debt alone. These fears have been exacerbated by an apparent rise in the perceived risk that the government will default on its debt, at least as measured by CDS rates.

But we remain relatively sanguine for the time being. Demand for gilts is likely to remain firm, especially from banks. And the DMO is likely to exploit the steepening in the yield

curve, prompted by the weakening economy, by tilting its issuance towards relatively cheaper short-dated gilts. Our central expectation is that gilt yields will remain at around their current levels. Even so, the cost of servicing the stock of gilts will rise, because the stock of debt is rising faster than the likely small decline in the average coupon paid on that debt. And there is clearly a risk that investors (particularly overseas) could take fright at the worsening fiscal position and push yields higher.

8. Government and the financial sector

David Miles (Morgan Stanley)

Summary

- The financial crisis has forced governments in the UK and elsewhere to intervene in the financial sector in a way that had long been unthinkable.
- The scale of the intervention in the UK is enormous, but the long-term costs to taxpayers could well be small – they may even make a profit. That said, the downside risks are huge because the payoffs on the support measures are asymmetric: taxpayers are much more likely to make big losses than big profits.
- If the government forces the banks to lend on a scale and at interest rates more generous than they would have chosen for themselves, this could increase the direct cost to taxpayers. But if it does not force the banks to do so, the cost in lost tax revenue of deepening or extending the credit crunch could be greater.
- Three reforms could help stop the current difficulties reoccurring. First, reintroducing housing costs into the measure of inflation targeted by the Bank of England might provide limited protection against housing bubbles. Second, capital adequacy requirements need to be higher in the long term and counter-cyclical. Third, better incentives are needed to promote responsible lending and borrowing.

8.1 Introduction

Failures of financial firms and the effective closure of some financial markets – thanks to crises of confidence – have required governments across the world to play a role in the financial sector that all but the most interventionist would have balked at 18 months ago.

As banks have become more fearful of lending to other banks, central banks have massively expanded their balance sheets by stepping in to intermediate flows between financial institutions. As losses among banks have risen – and as the fear of further losses remains – governments have orchestrated recapitalisation schemes that in many countries have left them as major shareholders in the banking sector. As uncertainty and pessimism about the quality of bank assets have increased, sources of funding have dried up and governments have guaranteed new issues of wholesale funds. Deposit protection – in effect, government guarantees of retail deposits – has also been increased.¹ The scale of the support measures and interventions in the UK has been very large. But whether and when they may give rise to a significant net cost to taxpayers is far from clear.

¹ In the UK, deposit protection is provided by the Financial Services Compensation Scheme. Up to a limit, the payouts that are made by the scheme are retrieved by levies upon financial firms. But those limits are not large relative to the scale of deposits covered. If the scheme were to make payouts on a significant proportion of the deposits of a large bank, the gap between payouts and the maximum that could be levied on financial firms would need to come from the state; whether such state support could ultimately be recouped from financial firms is unclear.

This chapter outlines the causes of the problems (Section 8.2), describes the scale of support to the financial sector, the terms on which it has been given and whether it is likely to generate a net cost to the taxpayer (Section 8.3) and looks at ways in which policymakers can help prevent it all happening again (Section 8.4).

8.2 The causes of the problems

In retrospect, what got us into this mess is becoming clearer. In a single (albeit long) sentence: There was too much extension of risky credit at terms which did not adequately compensate for that risk by institutions that did not have enough capital and which relied upon wholesale sources of funding that proved footloose, generating severe liquidity problems once worries about asset quality increased. It is much easier to observe this now it has happened than it was to anticipate it in advance: few saw things clearly until the risks had actually crystallised.

Part of the problem has been that some providers of the debt that ultimately financed lending had a poor idea of the underlying risks of loans; some may have relied too heavily on rating agencies to give a reliable guide to the risk of debt securities backed by lending. Many of those who financed lending may have understood the risks much better, but in a search for yield in a world where returns on debt (particularly government debt) had fallen, they decided to accept more risks – and on less favourable terms – than they had done before.

Perhaps a more powerful factor was that rises in asset prices – especially house prices – seemed to make the underlying loans secure because they generated rising collateral. This convinced many that even if the ability of borrowers to service the debt was questionable, loan losses would be small. Relatively low capital adequacy weights on mortgages reinforced the view that they were at the safe end of the risk spectrum.

Much of the lending that caused problems was residential mortgages, and much of it was made in the US. But the problems have now affected most countries, and losses on lending are rising in many economies.

Problems became clear earliest in the US, where house prices began to fall ahead of most other countries. Underwriting standards in parts of the mortgage market seem to have been remarkably lax – indeed almost non-existent in parts of the sub-prime market in the US. Fraud may have been rife in parts of that market. Richard Bitner, who ran a sub-prime mortgage company in the US, estimates that at the peak of the boom, around 70% of the mortgage applications that came his way were fraudulent.²

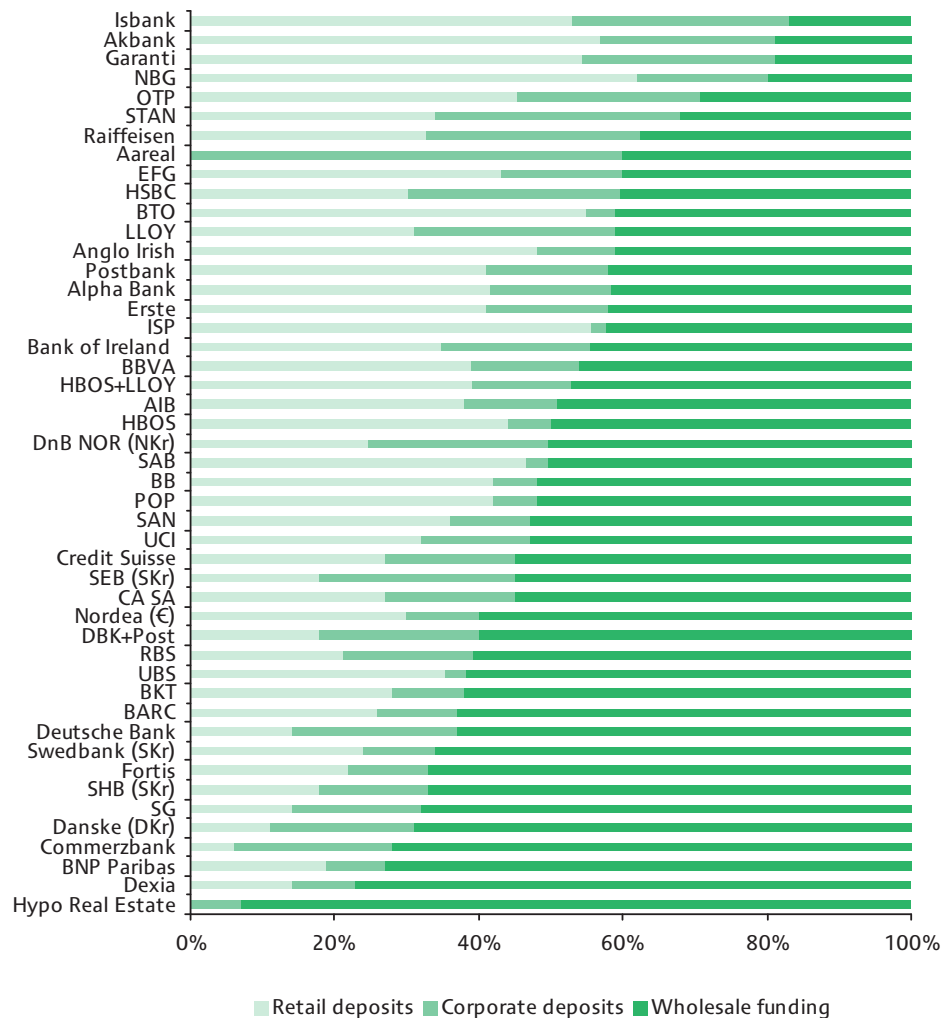
The scale of losses made on lending in the US turned out to be much greater than people had thought likely before house prices started to fall. Because it was hard to judge where the ultimate losses on those loans lay – though clearly they were spread widely among financial institutions across the globe – it triggered a global lack of faith in banks. As asset prices (particularly of houses) fell in other countries, fears about the scale of losses from lending there – and the ability of banks to withstand them – rose. Those fears may have become excessive, but they also had the potential to become self-fulfilling as banks'

² See R. Bitner, *Confessions of a Sub-Prime Lender – An Insider's Tale of Greed, Fraud and Ignorance*, John Wiley and Sons, 2008.

distrust of each other made the flow of credit between them ('wholesale funding') dry up, with knock-on effects for the cost and availability of credit in the wider economy.

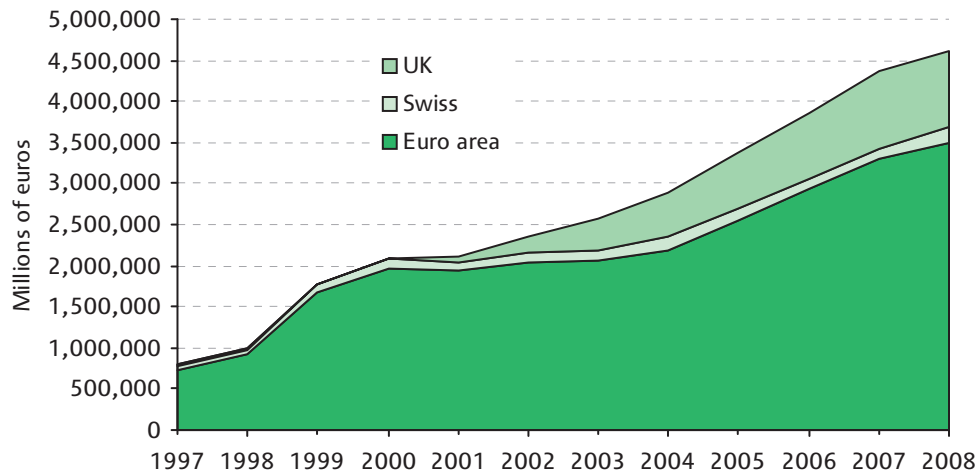
Figures 8.1 and 8.2 show why freezing-up of wholesale funding was a problem. Banks right across Europe depend substantially upon wholesale funding – this is not specifically a UK phenomenon. (The UK banks in Figure 8.1 – Lloyds and HBOS (LLOY, HBOS), HSBC, Standard Chartered (STAN), Barclays (BARC) – are not all clustered at one of end of the spectrum.) One reflection of this is the enormous growth in the scale of bank loans relative to the growth in retail deposits. In 2000, UK banks took roughly as much in deposits as they loaned, but by 2008 that funding gap had risen to over €900 billion. This gap largely reflects reliance on wholesale debt. It is a gap that has also risen enormously within the euro area. So, once the wholesale market became difficult for banks to tap, it created problems throughout Europe. As a result, the ECB has increased the size of its balance sheet enormously, as has the Bank of England.

Figure 8.1. The sources of bank debt across Europe



Source: Morgan Stanley.

Figure 8.2. The gap between bank loans and deposits across Europe



Source: Morgan Stanley estimates.

Erosion in the value of assets (e.g. loans or asset-backed securities) causes problems because debt leverage is high. High debt leverage means that total bank assets are many times larger than equity – often 30 to 50 times greater than the value of tangible equity. Because of the high ratio between equity capital and total bank assets, it takes only a 1–2% fall in asset values to wipe out a substantial proportion of a bank’s capital.

8.3 Government support for the financial sector

Support to the financial sector has come in several forms and generates different kinds of exposures for the UK public sector:

- **Support measures:** The Bank of England has extended its balance sheet by lending, and undertaking asset swaps, against a wider range of collateral than usual; there is also a new asset purchase facility under which the Bank will be authorised by the Treasury to purchase private sector assets.
- **Deposit protection:** The Financial Services Compensation Scheme (FSCS) has been made significantly more generous.
- **Guarantees:** The government has guaranteed some forms of bank debt – both unsecured debt and issuance of asset-backed securities; it has also announced its intention to offer capital and asset protection to banks on assets most affected by the financial market problems.
- **Bank recapitalisation and nationalisation:** The government has taken substantial equity stakes in both RBS and the new Lloyds Banking Group, and has nationalised Northern Rock and Bradford & Bingley.

How big are these interventions? And will they leave the taxpayer with a long-term cost to shoulder? Not all the details of the interventions are yet available. But based on what we know, we set out to answer these questions for the four interventions in turn.

Support measures

The Bank of England has enormously expanded its provision of liquidity, as evident from the growth in its balance sheet (see Table 8.1). At the start of December 2007, the Bank of England's balance sheet – which had already grown significantly in the wake of the problems that began at the end of July of that year – was under £100 billion (and around 6½% of national income). By December 2008, the balance sheet stood at around £260 billion – around 17% of national income. Furthermore, this expansion does not reflect the operation of the Special Liquidity Scheme (SLS), because collateral swaps do not appear on the balance sheet. The SLS began in April 2008 and was subsequently extended to run into 2009. Under this scheme, banks are able to swap a wide range of collateral (including the highest-ranked tranches of Residential Mortgage-Backed Securities, RMBS) for Treasury bills. The Chancellor has said that this scheme might provide £200 billion of enhanced liquidity.

Table 8.1. Bank of England consolidated balance sheet: December 2007 and December 2008 (£ million)

Liabilities	05/12/07	03/12/08	Assets	05/12/07	03/12/08
Notes in circulation	42,115	44,836			
Reserve balances	21,627	38,637			
Standing facility deposits	-	-	Standing facility assets	-	-
			Other maturity within-maintenance period sterling reverse repos	-	-
Fine-tuning sterling repo	-	4,512	Fine-tuning sterling reverse repo	-	-
One-week sterling	-	65,225	One-week sterling reverse repo	16,419	-
			Longer-term sterling reverse repo	15,000	158,719
			Ways and Means advances to HM Government	13,370	370
Foreign currency public securities issued	4,680	5,397	Bonds and other securities acquired via market transactions	7,917	11,710
Cash ratio deposits	2,936	2,433			
Other liabilities	24,958	98,114	Other assets	43,609	88,355
Total liabilities	96,316	259,154	Total assets	96,315	259,154

Source: Bank of England. (Cells containing dashes indicate zero or negligible items.)

New swaps under this SLS will not be possible after 30 January 2009. But the scheme will remain operational for three years thereafter. Upon its closure, the Bank will extend its Discount Window Facility under which, for an additional fee of 25bp, it will provide long-term liquidity (with maturity up to 1 year, rather than the usual 30 days) against collateral.

The Bank will also set up an asset purchase programme implemented through the establishment of a new fund. This will mean that the Bank is authorised to buy private sector assets – including corporate bonds, commercial paper, syndicated loans and asset-backed securities. The Treasury has authorised initial purchases of up to £50 billion financed by the issue of Treasury bills.

All this means an enormous increase in the exposure of the central bank – and therefore the public sector – to losses from erosion in the value of bank assets.

But most of the exposure comes about as a result of collateralised lending or swaps. For these operations for the Bank of England to suffer losses there needs to be *both* a failure

of the counterparty and also an erosion in the value of the collateral taken that is large enough to wipe out the buffer created when the loan or swap was originally made. That buffer reflects the 'haircuts' – the extra collateral required to be pledged for different types of assets.³

Under the SLS, the collateral is largely made up of asset-backed securities – most of which are likely to be mortgage-backed securities. In its most recent *Financial Stability Report* (October 2008), the Bank of England analysed the likelihood of losses on residential mortgage-backed securities:

If, over the next three years, mortgage arrears were to roughly double from their current levels to 2.8% before steadily falling back ('moderate case'), credit losses on UK prime RMBS would cumulate over time to reach a little over £9.4 billion after 25 years – relative to a current principal outstanding of £193 billion. This loss rate of 4.9% is insufficient to erode fully the A rated tranche. If, instead, arrears were to increase more abruptly over the next three years to 4.4% – a little under three-quarters of the peak seen in the early 1990s – losses would accumulate to just over £12 billion, but even then would erode only a fraction of the AA-rated tranche ... Under these moderate and severe projections for mortgage arrears rates, very high loss severities of around 85% and 65% respectively would be needed for the AAA rated tranche to be affected.

The Bank concluded:

it is difficult to reconcile the outlook for expected credit losses on UK prime RMBS, and hence the likely economic value of those securities, with current implied market values ... Under both moderate and severe projections for UK mortgage arrears, AAA rated UK prime RMBS claims do not experience fundamental credit losses. The economic values of these assets lie significantly above their current market values.

This assessment suggests that the Bank of England believes that it is unlikely that it will sustain significant losses on its collateralised provision of liquidity to UK banks.

The Bank of England Asset Purchase Facility is different, because this is not collateralised lending but outright purchases of assets. Its intention is also rather different because, through outright purchases of commercial paper and corporate bonds, it is a means of directly providing credit to non-financial companies. This programme will come into effect on 2 February 2009.

Deposit protection

At the time of the run on Northern Rock, the government announced that it would fully guarantee the retail deposits of that institution and any other that found itself in the same position. This was a substantial extension of the FSCS, which at that time covered 100% of losses on the first £2,000 and 90% of losses on the next £33,000 of deposits held by UK individuals at each institution covered. Subsequently, the FSCS scheme – which is

³ The securities must generally be rated AAA by two or more of S&P, Fitch and Moody's (as opposed to a rating from one agency under the ECB Repo Facility). Haircuts will be applied within a band of 12–22% for RMBS, covered bonds and credit card ABS. Additional haircuts (5%) will apply for own-name RMBS, covered bonds and credit card ABS, while non-sterling-denominated paper will be penalised by a further 3%.

financed from levies on the financial sector and is run on a pay-as-you-go basis⁴ – has become more generous and now covers 100% of the first £50,000 of losses.

The potential exposure of the government here is substantial:

- First, offering full coverage of retail deposits for an institution in the same situation as Northern Rock would create an exposure from potential losses of depositors who had more than £50,000 at the institution. The immediate prospect of a run such as that which hit Northern Rock affecting a large UK deposit taker is, however, relatively remote. The Bank of England SLS means that a recurrence of the Northern Rock scenario is unlikely, and the likely structure of new liquidity rules (as discussed in Chapter 7) will give banks much greater ability to withstand liquidity shocks.
- Second, and more likely than a repeat of the Northern Rock problem, is the possibility that the FSCS scheme could have to make payouts that exceed the limits for levies upon the financial sector.⁵ The total annual capacity of the scheme is currently £4.03 billion. This is a small figure relative to the scale of total retail deposits in the UK, which is close to £900 billion – most of which is eligible for compensation under the deposit protection scheme. But the £4.03 billion figure is the most the FSCS can levy the industry in any one year. If there were a default, or a series of defaults, that exceeded this amount in any year, the FSCS would not be able to levy any further compensation from the industry in that year. But the FSCS could borrow to pay any excess compensation required, and levy the industry in subsequent years to repay that loan. The government, via the Bank of England, has already made a loan to the FSCS to cover the deposits of Bradford & Bingley.

Guarantees

In October 2008, the government announced a Credit Guarantee Scheme (CGS), which provided to banks – for a fee – government guarantees of their issues of unsecured debt (that is, wholesale funds). The government estimated that participating institutions would issue £250 billion of guaranteed debt. On 14 January 2009, the government announced a scheme to guarantee £20 billion of loans to small and medium-sized companies.⁶ On 19 January 2009, the government also announced a new guarantee scheme for asset-backed securities. This draws on recommendations made by Sir James Crosby,⁷ which were originally focused on the mortgage market. But since the Crosby Report, the focus of government action has shifted towards the provision of credit for non-financial companies. Under this scheme – which will start in April 2009 – the government will provide guarantees to be attached to triple-A-rated asset-backed securities, backed by mortgages and corporate and consumer debt. The Chancellor

⁴ But as part of new measures to accelerate payouts to depositors with a bank that runs into problems, a degree of pre-funding may be introduced.

⁵ The financing operates on the basis that the firms in a subclass (e.g. deposit takers) will pay levies required to meet the compensation claims that arise from defaults in their subclass. Once a subclass reaches its annual threshold for levies to the FSCS, the other subclass (if one is in place) in that broad class will be required to contribute to cover further compensation costs. A final layer of funding was introduced in the form of a general retail pool, through which the other broad classes support any broad class that reaches its overall annual threshold.

⁶ Source: <http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=389537&NewsAreaID=2&NavigatedFromDepartment=True>.

⁷ Source: http://www.hm-treasury.gov.uk/fin_mort_crosby.htm.

announced on 19 January 2009 that the government would auction up to £50 billion of guarantees, initially on new mortgage lending and eventually on other assets. The government has said that it will 'ensure that only transparent structures and high quality assets are eligible'. The scheme will operate subject to approval under the European Community's rules on State Aid.

The government claims that charges for the guarantees offered under the CGS are at commercial rates. The charges are subject to the European Commission's approval under the State Aid rules and were approved on 13 October 2008. Subsequently, the charges were amended, with the effect that for most banks they fell slightly. The current charge is 50bp plus the median credit default swap (CDS) spread of the institution in the year up to July 2008. Table 8.2 illustrates the scale of that annual charge which is levied on the amount of debt guaranteed.

Table 8.2. The cost of UK bank guarantees

Guarantee fees	Median CDS, July 07 – July 08 (bp)	Total cost (bp)
Abbey	54	104
Barclays	60	110
HBOS	72	122
HSBC	47	97
Lloyds	39	89
Nationwide	96	146
RBS	64	114
Standard Chartered	51	101

Source: Morgan Stanley estimates.

It is not entirely straightforward to compare the cost of schemes put in place by different governments. Several countries use a similar rule to the UK scheme: Spain, Sweden, Portugal, Austria and Germany have schemes charging 50bp plus the median five-year CDS rate over the 18 months or so up to the end of Summer 2008 (though in some cases there is a cap on that charge, which could mean that less than the median CDS spread was added to 50bp). The French and US schemes seem to charge less. No scheme appears to make a charge for the guarantee that is higher than the UK's scheme. Further, the UK scheme only allows relatively safe unsecured debt to be guaranteed, which is often not the case elsewhere (the UK only allows vanilla senior product, whereas in some other jurisdictions structured notes, LT2 and covered bonds are included).

So the UK scheme does not appear generous relative to similar schemes run by other European governments. But even if it is fairly priced (so that expected losses are in line with the premium charged), it will generate substantial risk if around £250 billion of debt issues are eventually guaranteed (as the Treasury initially anticipated).

The Asset Protection Scheme announced on 19 January 2009 will also generate risks of substantial losses, even if the premium that is charged is fair in an actuarial sense so that the expected losses are covered by the fees charged. As yet, there is limited indication of the scale of the protection that will be sold. But the nature of the guarantee is clear: it will offer capital protection on assets most affected by the financial crisis; banks will face a residual exposure for around the first 10% of losses so that the government will be offering insurance against more extreme events. The fee is to be paid in cash or stock.

Bank recapitalisation and nationalisation

The government has taken into public ownership Northern Rock (which continues to trade) and Bradford & Bingley (whose deposits have been sold to Abbey-Santander and whose assets are being managed by the government). The value of their assets is around £150 billion.

The government has also become a majority shareholder in Royal Bank of Scotland (RBS) and will be by far the largest shareholder in the new Lloyds Banking Group (the recently merged Lloyds TSB and HBOS). In total, around £37 billion will have been provided to take these stakes. This capital comes in various forms:

- £5 billion of preference shares to RBS and £15 billion of ordinary shares (underwritten at 66p, compared with a trading price of 55p when the shares were taken up); subsequently, the government converted its holding of £5 billion of preference shares into ordinary shares at 31¾p, an 8.5% discount to the RBS closing share price on the eve of the announcement (34.7p).
- £1 billion of preference shares to Lloyds and £4.5 billion of common shares (underwritten at 173p a share, compared with a trading price of 133½p when the offer closed on 9 January).
- £3 billion of preference shares to HBOS and £8.5 billion of common shares (underwritten at 114p a share, compared with a trading price of 79p when the offer closed on 9 January).

The cost of the preferred equity, which has a 12% coupon, is higher than the cost of equity to banks in the US and across most of Europe (see Table 8.3⁸). It also carries with it strict conditions on the payment of dividends.

In all cases, the common equity was underwritten at an 8.5% discount to the then prevailing market price, plus 1½% of fees – terms which were more generous than the market would have offered at that time. Subsequent to the underwriting, share prices fell sharply.

Overall, the prices the UK government has paid for the equity stakes it has taken were not obviously unfavourable to taxpayers, *given market prices at the time the terms were agreed*. And the preference shares – which have been offered by Lloyds-HBOS – pay a coupon that is higher than the return on capital paid to other governments on stakes they have taken in their banks (see Table 8.3). But neither have the terms been clearly favourable to taxpayers, given the price at which equity capital might have been available in the private market.

Whether or not the return ultimately earned on the equity stakes will represent a net cost or gain to taxpayers will depend on how the banks are run, something over which the government as the biggest shareholder has substantial influence. After the conversion of preferred shares to ordinary equity, the government will own around 70% of the shares in RBS; it will own over 40% of the shares of the merged Lloyds-HBOS. Running the institutions on what might be called purely commercial terms might offer taxpayers a better direct return on their stake than if the banks are forced to make loans on subsidised terms or to lend where they might prefer not to. But if running the banks on

⁸ This table is an assessment of the terms of bank recapitalisations based on specific deals rather than on government policy statements about the terms on which capital more generally will be made available.

purely commercial terms were to exacerbate or prolong the credit crunch – thereby weakening the economy – then the benefit in terms of higher dividends and capital returns might well be more than offset by the consequent loss of tax revenues. Similar trade-offs apply to the running of Northern Rock.

Table 8.3. Capital supplied to banks by the UK has been relatively expensive

	Form	Capital treatment	Redemption	Government board representation	Common stock constraints
France	Subordinated hybrid debt - 5-year OAT + ~400bps	Tier 1	After year 5 An earlier redemption is allowed in agreement with the Commission bancaire if the securities are replaced by hybrids of equivalent subordination and nominal value	No	-
Germany ^a	Silent participation Around 9%	Core Tier 1	After year 5 ^b	No	No common dividends to be paid until end of stabilisation measures
Austria	Participation capital (domestic non-voting Core Tier 1) - 8.0%	Core Tier 1	After five years at par Issuer has the right to convert the instruments into common shares (terms to be determined)	No	No
US	Cumulative preference shares - 5% until year 5 - 9% thereafter - Warrants attached (15% of size)	Tier 1	After three years Buyback possible before year 3	No	Three-year restriction on common stock dividend increases and share repurchases
Switzerland	30 months mandatory convertible - 12.5%	Tier 1	N/A	No	-
Netherlands	Non-cumulative Core Tier 1 securities Higher of 8.5% or 110% of common dividend in 2008, 120% in 2009, 125% for 2010 (ING precedent) Conversion into ordinary shares at issuer option after three years	Core Tier 1	Buyback at 150% of issue price at any time ('cap') If converted, the Dutch government can opt for repayment of the securities at 100% in cash ('floor')	Yes, two board members	-
Belgium	Non-cumulative Core Tier 1 securities Higher of 8.5% or 105% of common dividend in 2008, 120% in 2009, 125% for 2010 Conversion into ordinary shares at issuer option after three years	Core Tier 1	Buyback at 150% of issue price at any time; however, State can require buyback to be settled in shares If converted, the Belgium government can opt for repayment of the securities at 100% in cash ('floor'), 115% in year 4 increasing by 5% annually, capped at 150%	Yes, two board members	-
UK	Non-cumulative preference shares - 12% until year 5 - Libor + 7% thereafter	Tier 1	After year 5 Buyback at market price before year 5	Only via common share investment	No common dividends until prefs are redeemed / repurchased

Notes: Details for each country reflect the terms of specific transactions with one or more banks in each country, rather than a stated general policy on the terms at which capital will be provided to banks.

a. Convertible option is less shareholder-friendly as indicated, being similar to the Austrian solution.

b. No confirmed detail as yet, assumed to be standard German silent participation terms.

Sources: Debt Management Office; Morgan Stanley estimates.

The government's stated approach to using the stakes in those banks in which it has become a major shareholder is consistent with giving them a high degree of commercial independence, but has an interventionist tone. This is what the Chancellor has said about the operation of United Kingdom Financial Investments Limited (UKFI), the body established to manage the government's stakes:

UKFI will work to ensure management incentivisation based on long-term value maximisation, which attracts and retains high quality management and which minimises the potential for rewarding failure. UKFI will also oversee the conditions attached to subscribing to the Government's recapitalisation fund, including maintaining, over the next three years, the availability and active marketing of competitively-priced lending to home owners and small businesses at 2007 levels.

The Government will not be a permanent investor in UK financial institutions and will over time seek to dispose of the investments in an orderly way, through sale, redemption, buy-back or other means, in accordance with the UKFI's objectives.

The governance of UKFI will be consistent with the Government's intention to manage its investments on a commercial and arm's-length basis and not intervene in day-to-day management decisions.⁹

Both management remuneration and the pricing and availability of credit will be monitored. The goal of maintaining '... the availability and active marketing of competitively-priced lending to home owners and small businesses at 2007 levels' could clearly conflict with the 'intention to manage its investments on a commercial and arm's-length basis'. It might also conflict with the government's goal 'not [to] be a permanent investor in UK financial institutions and ... over time seek to dispose of the investments in an orderly way'.

The government will also attach conditions – beyond the fees payable – to its provision of protection against losses on assets most affected by the financial crisis. Under the Asset Protection Scheme, there needs to be a commitment from the participating banks to support lending to 'creditworthy' borrowers.

Two points are relevant here. First, the government has taken a stake in the banks because there was a clear market failure – the banking system stopped working in October 2008, and again came under huge stress in mid-January 2009. Given this market failure, it would be strange for the government to insist that it leaves the banks' decisions to be determined by market forces. Second, the justification for making banks lend at terms that they might not themselves choose is that, otherwise, lending might fall precipitously and in a way that collectively hurts banks and the economy. Cutting back lending might be rational for an individual lender, but if followed by most banks it would exacerbate the slowdown and drive down asset values for all banks. That provides some justification for having banks make loans on terms that might seem unfavourable to them so long as they assumed conservative strategies by other banks. The government does not want to describe that as a strategy of having banks make non-commercial loans. Indeed, in setting out the conditions under which it would make guarantees available (for a fee) under its new Asset Protection Scheme, it says that there will need to be: 'a

⁹ Letter from the Chancellor to the Chairman of the Treasury Committee, 3 November 2008 (http://www.hm-treasury.gov.uk/uk_financial_investments_limited.htm).

verifiable commitment agreed between the participating institution and the Treasury to support lending to creditworthy borrowers in a commercial manner'.¹⁰

Summary

It is wholly misleading to add together the various figures that each describe the scale of some element of the support programme for banks and describe the resulting aggregate as the scale of the 'bailout'. Doing so certainly generates a big figure: under the SLS, around £200 billion of collateral swaps may be made; £250 billion of lending may ultimately be covered by the Credit Guarantee Scheme and substantial further sums will be covered by new types of guarantees soon to be introduced; initially, up to £50 billion of assets will be bought by the Bank of England under the Asset Purchase Facility; the equity stake in the banks is £37 billion; in the case of Royal Bank of Scotland, since the government owns close to 70% of its equity, there is an argument for including all its debt liabilities – which exceed annual GDP – as liabilities of the government.

But for all the scale of these various types of potential exposure, the most likely outcome is that the support packages will not ultimately cost the government much:

- Most of the Bank of England support measures are protected by collateral that was judged by the Bank itself (last October) to be underpriced.
- The guarantees under the Credit Guarantee Scheme involve charges somewhat higher than those imposed by most other governments and which have been judged consistent with the EU State Aid rules designed to prevent governments subsidising national banks.
- The preference capital supplied to Lloyds-HBOS pays a coupon that does not look low.
- The terms of the guarantee scheme for asset backed securities (announced on 19 January 2009) are subject to State Aid approval from the European Commission.

But while the most likely outcome might be that the cost to the government of the support measures is relatively small, the exposures are great and the chance of big losses is *much* greater than the chance of big profits. Any such guarantee is a form of insurance that inevitably exposes the insurer to downside risks. How great those risks are will depend on the way in which financial institutions are regulated and on the evolution of asset prices. These issues are addressed in the next section, which considers how policy might be changed to enhance financial stability and help prevent similar financial crises from recurring.

8.4 Stopping it all happening again

How can we stop this happening again? Three things are important:

- the framework for maintaining financial stability;
- the role of capital requirements; and
- monitoring the affordability of debt.

¹⁰ HM Treasury, 'Statement on the government's Asset Protection Scheme', 19 January 2009 (http://www.hm-treasury.gov.uk/press_07_09.htm).

The framework for maintaining financial stability

The overhaul of the macroeconomic and regulatory framework undertaken when Labour came to power brought clarity to the operation of monetary, fiscal and regulatory policy – in terms of who had responsibility for each element and, perhaps to a lesser extent, in terms of tools and objectives. The Bank of England has set interest rates to hit an inflation target; tax and spending decisions have been taken in the context of a set of fiscal rules – though how much weight has been given to the rules is questionable (see Chapter 5); the Financial Services Authority has focused on applying a complicated, and changing, set of rules and principles to a huge and diverse range of institutions.

But along the way, a focus on the threats to overall economic stability from problems in financial markets fell between the cracks. It is obvious that such problems have macroeconomic consequences – as asset prices run up and then deflate, as balance sheets become stretched and then are forced to snap back, and as the overall availability of lending in the economy expands rapidly and then contracts.

Two things are now needed. One is to assess whether existing targets or rules given to members of the tripartite authorities (the Bank of England, the FSA and the Treasury) need to be altered so that policy responds automatically to potential problems. Second, a new specific responsibility to focus on aggregate financial stability is warranted. It is natural that on both fronts the Bank of England will take the lead.

Specifically, more needs to be done to prevent huge run-ups in asset prices – particularly in house prices. To that end, one could argue some element of housing costs should be reintroduced into the measure of inflation targeted by the Monetary Policy Committee at the Bank of England. At the moment, there is no direct link between changes in house prices – which themselves are a driver of the overall cost of housing – and the measure of the level of prices the Bank of England is asked to focus on (the consumer price index, CPI).¹¹ If house prices did affect the measure of inflation – as they should if that measure is to reflect movements in the cost of living of households – then an inflation-targeting central bank will tend to offset sharp rises in house prices by tightening monetary policy. There are huge advantages in setting an inflation target for the central bank; and having more than one target when there is just one lever the central bank can pull (by changing the level of the short-term interest rate) is problematic. By putting a measure of house prices into the consumer price index, one can preserve the clarity of having the central bank focus on inflation while also allowing it to respond, at least to some extent, to sharp rises in house prices in a way that will tend to be stabilising.

But if the weight of house prices on the inflation measure is to reflect only its significance to the cost of living, then it could not be relied upon to trigger interest rate increases sufficient to forestall house-price bubbles. So, while more desirable than not, this would have limited value in enhancing financial stability.

The government has not announced any changes to the inflation measure. But it is taking the steps to give the Bank a statutory objective for financial stability. Here is how it was described by the Chancellor in a letter to the Treasury Committee (in June 2008):

¹¹ The previous measure of inflation that the Bank targeted (RPIX) was affected by house-price inflation. At the time of the switch from the RPIX target to the CPI target at end-2003, the difference between the two measures was substantial. In December 2003, RPIX inflation was above the target level of 2½%. CPI inflation was running at 1¼% – significantly below the new (and lower) target of 2%. Much of that difference was due to the impact of high house-price inflation.

The Bank of England Act 1998 gave the Bank a statutory objective on monetary policy. Although one of the Bank's two core purposes, set out in its Annual report, relates to financial stability, the Bank has never had a statutory objective for financial stability ... the Government now intends to provide a firm foundation for the Bank of England's role in financial stability. This will be achieved by legislating to provide a formal legal responsibility in this area, alongside the Bank's statutory role in monetary policy.

So in the forthcoming banking legislation we will set out a high-level statutory objective for the Bank of England to ensure financial stability ... So we will set out a high-level objective for financial stability in the legislation, and then define it operationally.¹²

Quite how the Bank interprets its new legal responsibility remains to be seen. But it will need tools to help fulfil that responsibility. One of those tools, and one which would be used in conjunction with the FSA, should be capital requirements.

The role of capital requirements

There has been an overwhelming consensus from financial institutions – and also their regulators – that equity capital is expensive, that debt is cheap and that the more capital that is held the less profitable will be the institution. This belief has always been puzzling. A basic piece of finance theory – the Modigliani–Miller theorem – says that it is false. There should be a link between the cost of debt for any institution and the amount of equity it has (and which acts as a cushion between losses to that institution and losses to the providers of debt). Once one takes into account the fact that more equity makes the debt safer – and therefore should make it cheaper – then the apparent extra cost of raising equity is offset by the benefits it brings in terms of a lower cost of debt. Almost without exception, when this argument is put to people who work in the financial sector – including regulators – it has been greeted with some mixture of bemusement and pity at its hopeless naivety.

But when we see financial firms that are perceived (rightly or wrongly) to be under-capitalised having difficulty raising debt and needing to pay a lot for it, then this is a powerful reminder of why the Modigliani–Miller theorem is fundamentally right.

Now it is again clearer that there is a link between the cost – and availability – of debt and the amount of equity capital. Anyone who still firmly believes that equity capital is expensive and debt is cheap – so that minimising the amount of equity capital is the optimal strategy – does not really get this.

But once you do get it, it is liberating. No longer do capital requirements set by regulators become an irksome burden where the goal is to minimise the extent to which they bite. And for regulators it is also liberating. Worrying endlessly that the complex system of weights, devised and refined over many years in various iterations of Basle capital rules, has set capital requirements slightly too high is not sensible. If the cost of having more capital is not great, then the cost of setting capital weights on assets higher than the minimum their risk characteristics might seem to warrant is also not high.

¹² http://www.hm-treasury.gov.uk/fin_chx_selectcommittee.htm.

But in setting higher capital requirements, we also need to ensure that they do not operate in an unhelpful pro-cyclical way – letting capital fall in booms when asset prices and lending are growing and rise in downturns when asset prices are falling. Unfortunately, the current capital adequacy rules – or at least the way they have often been applied – seem to have had this effect¹³ and to that extent have undermined financial stability.

Making capital requirements have a counter-cyclical impact should be a high priority.¹⁴ It would add an extra macro policy tool that is needed as a financial market stabiliser.

Better monitoring of the affordability of debt

The root of the recent banking problems is that too much credit was granted to people who will struggle to repay what they borrowed. There now needs to be a much more serious focus on whether those who take on credit can afford to do so.

The Miles Report (2004) was undertaken as an independent review of the structure of the UK mortgage market for the government in 2003.¹⁵ It focused heavily on the importance of lenders and borrowers understanding and carefully assessing the risks of people not being able to service debt. Interest rates on mortgage debt can fluctuate substantially; people in the UK tend to take on variable-rate debt (thereby subjecting themselves to that interest rate risk) and people borrow a great deal relative to their current income. So, understanding affordability is crucial. To some extent, the system of regulation of mortgage lending in the UK reflected the concerns raised in the Miles Review – there is a responsibility on mortgage advisers to consider affordability, and information needs to be given showing the impact of a 1 percentage point change in the interest rate on a mortgage. But subsequent events have shown that there remain huge shortcomings in understanding and assessing risks to affordability.

We need to get to a situation where there is a strong coincidence of mutual interest between lenders, intermediaries and borrowers in not having credit extended where there are high risks that it cannot be repaid. This is a question both of responsibility and of incentives. Incentives matter a great deal. When intermediaries (which include advisers and brokers as well as lenders who then securitise the loans and no longer hold them on their balance sheets) have incentives to generate new lending, they also need to have incentives to monitor that the lending is sound. That seems obvious. Less frequently said is that borrowers – households – have responsibilities and also need to face good incentives. It would be a disastrous situation if people feel that they are absolved of responsibilities over their debt by the fact that someone else made the loan available.

¹³ As house prices have fallen, some UK banks will see 10–15% growth in risk-weighted assets (and therefore their required capital) from the operation of the Basle II rules.

¹⁴ The FSA statement on its approach to regulation of bank capital (released on 19 January 2009) suggests it is acutely aware of this (http://www.fsa.gov.uk/pages/Library/Communication/Statements/2009/bank_capital_.shtml).

¹⁵ HM Treasury, The UK Mortgage Market: Information, Incentives and Pricing (Interim Report), December 2003; HM Treasury, The UK Mortgage Market: Final Report and Recommendations, March 2004. Both are available for download from http://www.hm-treasury.gov.uk/consult_miles_index.htm.

8.5 Conclusions

The government has taken a huge stake in bank assets – through provision of guarantees; through extension of liquidity support, as well as outright purchases of assets, by the Bank of England; through buying equity stakes; and through nationalisation.

None of this represents a handout provided to banks without, in exchange, claims on cash flows. The support measures may not generate a net cost to the government – indeed, if the economy evolves along the lines of the Treasury forecast, that is quite likely.

But the claims the government has acquired do not create symmetric risks where there is as much chance of very profitable returns as of large losses. Much of the support is in the form of guarantees which, as a form of insurance, create risks of big losses but not of large gains. Taking on these big risks is something the government should not shy away from in the middle of a banking crisis. But this makes it essential to take steps to reduce the chances of such crises happening again.

9. Public spending: set for a squeeze

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Summary

- The government is projecting much slower growth in public spending over its next Spending Review than over any of its previous reviews – and slower than under the 18 years of Conservative governments from 1979 to 1997. The increase of 1.1% a year in real terms would cut public spending by 2.5% of national income over three years – £37 billion in today's terms.
- The squeeze on Whitehall departments may be even more severe, given plausible scenarios for social security and tax credit costs, net debt interest payments, and other non-departmental spending. Total departmental spending may well have to be frozen in real terms over the three years.
- In that event, most departments are likely to see real cuts, with only high priorities such as health and education being allocated any real growth – and even these may see their budgets cut as a share of national income. Capital-intensive departments, such as transport and housing, are likely to suffer more than most due to the planned cash freeze on investment spending.
- The spending squeeze also has implications for some specific government objectives. Earnings indexation of the basic state pension is likely to be delayed, pushing up pensioner poverty. The government is also projected to miss its child poverty target for 2010 – and unless additional resources can be found, it could stay above the target for some time after 2010–11. Lower growth in education spending is likely to squeeze public funding for higher education, which could force funding reforms that may conflict with the government's objectives to widen and increase participation.

9.1 Introduction

The November 2008 Pre-Budget Report (PBR) pencilled in real increases in public spending of just 1.1% a year in 2011–12, 2012–13 and 2013–14, presumably the three years to be covered by the next Spending Review. This is less than a third of the average growth rate seen under the previous five Labour Spending Reviews, and lower than the average growth rate seen during the 18 years of Conservative governments from 1979 to 1997.

As we describe in this chapter, such low increases in total public spending will seriously limit the options available for departmental spending growth. This will result in difficult choices in the next Spending Review, and may prove incompatible with the government's aspirations to improve the quality of public services and reduce poverty.

Section 9.2 compares the growth in overall spending implied by the plans set out in the November 2008 PBR with what has happened since Labour came to power in May 1997 and with what has happened over the longer term. Section 9.3 briefly discusses Labour's previous Spending Reviews. Section 9.4 presents the trade-off that the government is

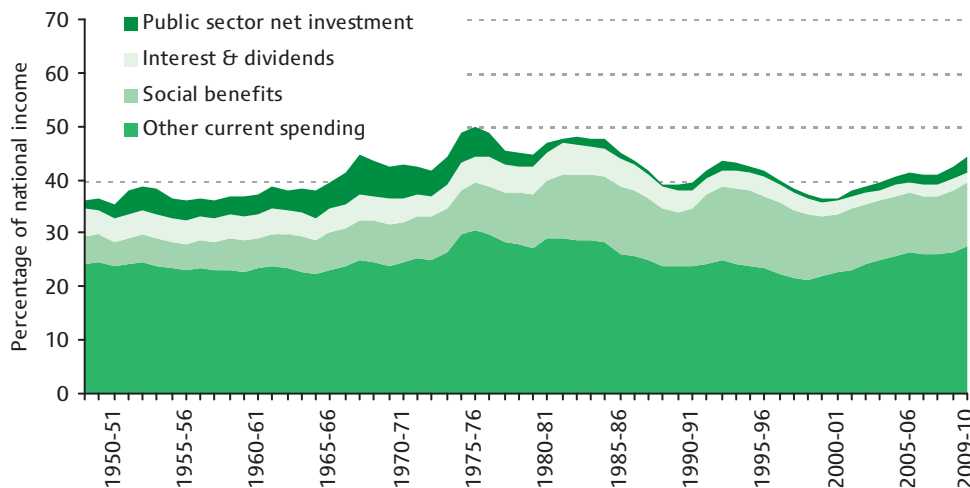
likely to face in the next Spending Review between departmental spending and other areas of public spending if the projections for overall spending set out in the November 2008 PBR are adhered to. We also briefly discuss what this could mean for individual departments. Section 9.5 discusses three policy areas that could be affected by the low spending growth planned: the earnings indexation of the basic state pension, the targets to reduce income poverty among families with children, and a possible squeeze on higher education (HE) funding. Section 9.6 concludes.

9.2 Trends in UK public spending

Total spending since 1948–49

The Treasury predicts that total managed expenditure (TME), the broadest measure of government expenditure, will be £623.1 billion in 2008–09. This equates to 42.6% of national income, or just under £10,150 for every person in the UK.

Figure 9.1. Composition of public spending (TME) since 1948–49



Notes: Projections are from the November 2008 Pre-Budget Report. Current expenditure includes depreciation.

Sources: Measures of public spending are ONS series ANLO, ANLT, ANLY, ANNW and ANNZ from table 2.3C of *Financial Statistics Freestanding Time Series Data*. GDP is ONS series BKTL from table A2 of *United Kingdom Economic Accounts* (<http://www.statistics.gov.uk/statbase/tsdtimezone.asp>). HM Treasury, *Pre-Budget Report 2008 supplementary material*, London, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_chartstables_501.pdf).

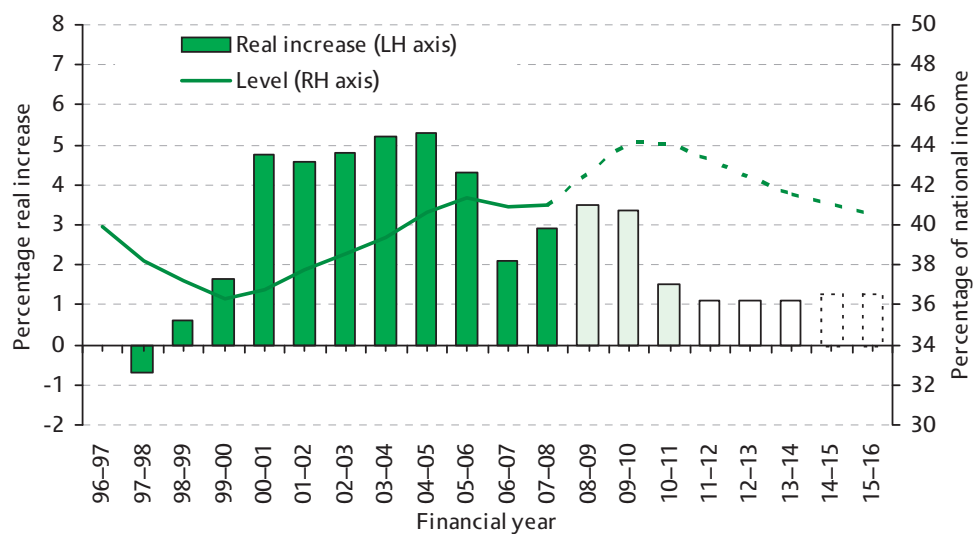
Figure 9.1 shows how public spending as a share of national income has varied since 1948–49. TME climbed from 36.0% of national income in 1948–49 to a peak of 49.8% in 1975–76. Spending on health, education and contributory benefits, such as the basic state pension, grew particularly quickly. Conversely, defence spending fell sharply after the end of the Korean War in 1953. Between 1975–76 and 1998–99, public spending fell as a share of national income, due initially to cuts in public sector net investment and then to cuts in current spending on public services (including education). Public spending fell particularly sharply during the late 1980s and late 1990s as a strong economy reduced expenditure on social benefits and debt interest payments. Conversely, the early 1990s saw public expenditure increase as weak economic performance pushed up these expenditures. Figure 9.1 shows that public spending has risen again as a share of national

income since April 1999. We now describe trends in spending under the current Labour government in more detail.

Growth in public spending under Labour to date

In 1996–97 – the last full financial year before Labour came to power – total public spending stood at 39.9% of national income. As the solid line in Figure 9.2 shows, this had fallen to 36.3% of national income in 1999–2000. This decline reflected a combination of strong economic performance and low growth in spending on public services. Low growth in spending on public services in 1997–98 and 1998–99 had been planned by the previous Conservative government, and the incoming Labour government chose to continue to adhere to these plans once it came into office, in line with Labour’s manifesto commitment.

Figure 9.2. Total managed expenditure



Notes: Light-green bars represent the years covered by the 2007 CSR and white bars are illustrative Treasury plans for government spending for years not yet covered by a Spending Review, while the dotted white bars are not explicit government projections but are based on authors’ calculations.

Sources: Table B1 of HM Treasury, *Public Sector Finances Databank*, London, December 2008

(http://www.hm-treasury.gov.uk/d/public_finances_databank.xls) and table B10 and paragraphs 2.60 and 6.33 of HM Treasury, *Pre-Budget Report 2008*, London, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm). GDP and GDP deflators up-to-date as of 23 December 2008 from HM Treasury website (http://www.hm-treasury.gov.uk/d/gdp_deflators.xls).

In July 1998, the government presented the results of the first Comprehensive Spending Review (CSR), which set out departmental spending plans for 1999–2000, 2000–01 and 2001–02. The original CSR 1998 plans had been for public spending to increase as a share of national income in each of these three years. However, despite 1999–2000 being the first year under the 1998 CSR plans, expenditure fell rather than rose as a share of national income as some government departments spent less than their allocations. Since then, public spending has increased, reaching 41.4% of national income in 2005–06, due to increases in spending on public services (in particular, education and health) and large increases in the generosity of targeted support aimed at lower-income families with children and lower-income pensioners. Departmental spending plans through to 2007–08 were set out in the Spending Reviews of July 2000, 2002 and 2004, while the CSR of October 2007 set out spending plans for the three years 2008–09, 2009–10 and 2010–11.

A more detailed comparison of original spending plans and out-turns under each of these Spending Review periods is provided in Section 9.3.

The bars in Figure 9.2 (and the left-hand axis) show the annual real¹ increase in spending since 1996–97. Relatively large real increases in spending were seen in each year from 2000–01 to 2005–06. Lower growth in public spending in 2006–07 and 2007–08 meant that public spending stabilised as a share of national income. The unusually low increase in 2006–07 was the result of spending in 2004–05 and 2005–06 being higher than expected (so the planned level of spending in 2006–07 implied a lower real increase).

International comparison of total spending

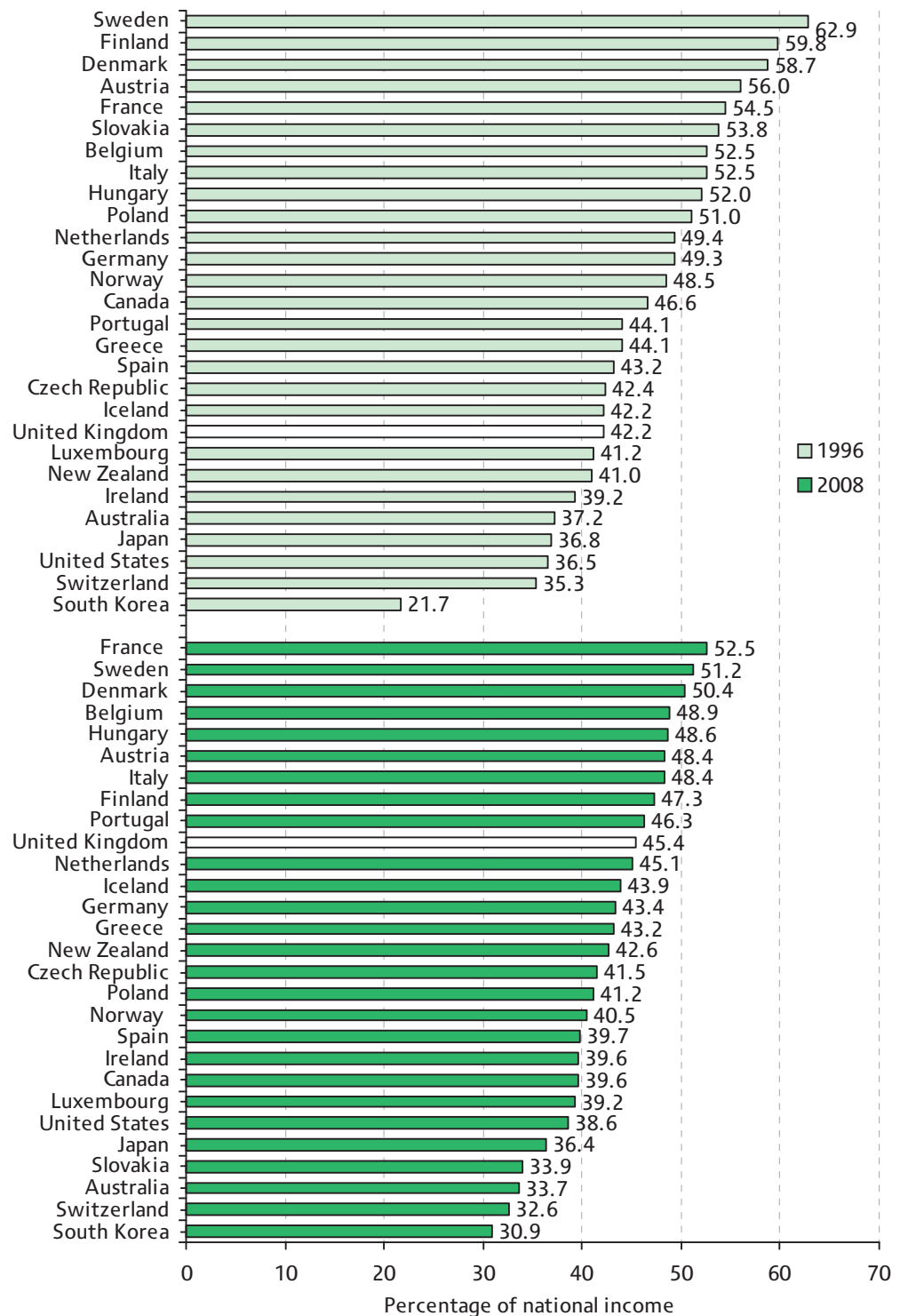
A snapshot comparison of total general government outlays in both 1996 (the year before Labour took office) and 2008 across 28 OECD countries is presented in Figure 9.3. The UK moved from having the 20th highest level of public spending in 1996 to the 10th highest in 2008. In both 1996 and 2008, the highest spenders were countries such as Sweden, France and Denmark where general government spending is over half of national income. At the other extreme, in Slovakia, Australia and Switzerland government outlays in 2008 were about one-third of national income, while in South Korea they were only just over 30%. Among the G7 countries, Italy and France have higher levels of public spending than the UK while Germany, Japan, the US and Canada all have lower levels.

In terms of the change in total government outlays over the period from 1996 to 2008, the UK has the second highest increase (+3.3% of national income) with only the very low-spending South Korea seeing a larger increase (+9.2%). Among the G7 countries, only the UK and the US recorded increases in spending as a share of national income; the other five all reduced their spending. Overall, 21 out of the 28 OECD countries recorded a reduction in total government outlays as a share of national income over this 12-year period. The change in the UK's relative position reflects larger increases in public spending on health and education in the UK than in most of the other countries, and smaller reductions in government debt interest payments.²

¹ Throughout this chapter, we refer to changes in 'real' spending, by which we mean spending calculated by deflating spending with growth in the GDP deflator. While this might not be the appropriate deflator for the increase in the cost of goods and services purchased by public spending, it could be considered the most appropriate deflator when considering the cost to the taxpayer.

² Data available from OECD statistics (<http://stats.oecd.org/WBOS/index.aspx>).

Figure 9.3. Total public spending, OECD countries, 1996 and 2008



Notes: Figures refer to general government total outlays. Figures for the US include outlays net of operating surpluses of public enterprises.

Source: Annex table 25 of OECD, *Economic Outlook No. 83*, November 2008

(http://www.oecd.org/document/61/0,3343,en_2649_34573_2483901_1_1_1_1,00.html).

Planned growth in spending to 2009–10

The October 2007 CSR had planned real increases in spending of 2.0% a year on average over the years 2008–09, 2009–10 and 2010–11, which would have been expected to reduce public spending as a share of national income slightly to 40.8% by 2010–11. This is shown by the black line in Figure 9.4. However, given the weaker outlook for economic growth over this period that the Treasury is now expecting, keeping to those real increases would now imply spending growing as a share of national income. In addition, the November 2008 PBR made significant upwards revisions to the forecasts for real public spending growth over these three years, partly caused by, and partly in response to, the current economic slowdown: real spending is now set to grow by an average of 2.7% a year until March 2011. The extra spending is mainly higher expenditure on social security benefits and tax credits, as a result of rising unemployment, and higher debt interest payments, as a result of higher government borrowing.³ One further difference between the latest November 2008 PBR plans and previous planned spending is that the government has chosen to bring forward some investment spending originally planned for 2010–11 into 2008–09 and 2009–10 in order to help provide a short-term fiscal stimulus to the economy. This increases expected real growth in spending in 2008–09 and 2009–10 and also reduces expected real growth in spending in 2010–11.

Consequently, as the dotted line in Figure 9.2 and the light-green line in Figure 9.4 show, public expenditure as a share of national income is projected to increase from 41.0% of national income in 2007–08 to a peak of 44.2% of national income in 2009–10. This is higher than the level inherited by Labour when they came to power (39.9% of national income) and equal to the average seen over Margaret Thatcher's premiership (44.2% of national income). What was intended to be the least generous Spending Review is now set to deliver the largest increase in spending as a share of national income, as Figure 9.2 shows.

Impact of PBR 2008 on planned public spending from 2010–11 onwards

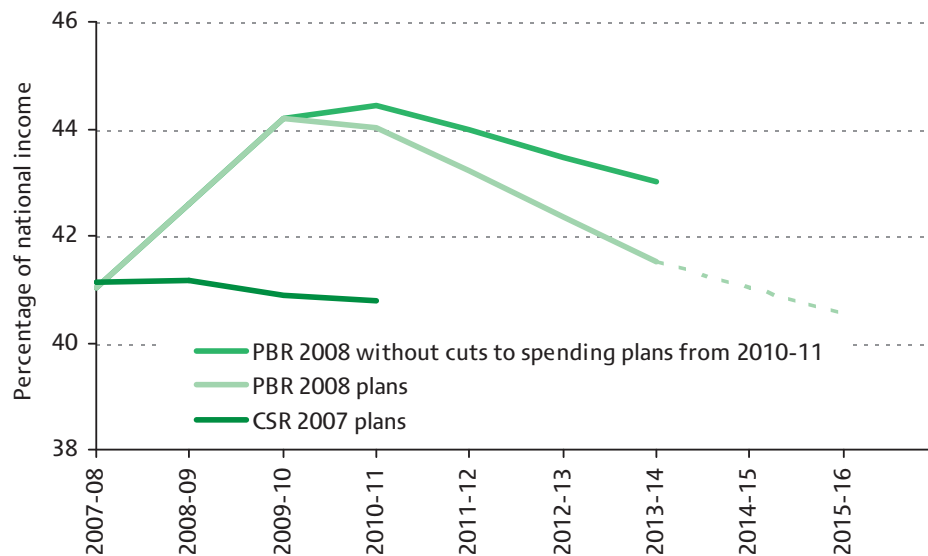
From 2010–11, the November 2008 PBR set out plans for a fiscal tightening. In particular, the government pencilled in lower than previously announced spending in 2010–11 and total real expenditure growth of just 1.1% a year for 2011–12 to 2013–14. This is lower than Budget 2008 plans for this period had implied, and lower than the 2.0% a year planned in the CSR for the period 2008–09 to 2010–11. If delivered, these plans will result in a decline in public spending as a share of national income, down to 41.5% in 2013–14 (shown by the dotted line in Figure 9.2 and by the light-green line in Figure 9.4).

The reduction in spending in 2010–11 comprises an additional £5 billion 'additional value for money savings' that the Treasury claims can be found (though these efficiency savings have yet to be allocated to specific departments) and a cut to the capital budget of the NHS in England. The capital budget of the English NHS was increased by £0.1 billion in 2009–10 but reduced by £1.4 billion in 2010–11, which can be considered as a reduction in the NHS capital budget of £1.3 billion in 2010–11. Taken together, these two changes will reduce total public spending in 2010–11 by £6.3 billion. The effect of these cuts to total spending as a share of national income in 2010–11 is shown by the gap

³ Projections of spending in these areas had also been revised upwards (though to a much smaller extent) in the 2008 Budget.

between the dark-green line and the light-green line in Figure 9.4 in 2010–11. The effect of lower than previously planned spending growth from 2011–12 onwards on the level of public spending is shown by the divergence of the light-green and dark-green lines in Figure 9.4.

Figure 9.4. Impact of PBR 2008 on total public spending from 2010–11



Notes: The light-green line represents total spending as a share of national income according to the plans outlined in the November 2008 PBR. The dark-green line represents how spending as a share of national income would have looked if no changes had been made to the NHS capital budget or planned efficiency savings in 2010–11 or the planned growth rate from 2011–12 onwards. The CSR 2007 plans have had projected GDP increased by 2% to take account of FISIM (financial services indirectly measured), which is now included in measures of GDP.

Sources: Authors' calculations from HM Treasury, *Pre-Budget Report 2008*, London, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm) and HM Treasury, *2007 Pre-Budget Report and Comprehensive Spending Review*, London, October 2007 (http://www.hm-treasury.gov.uk/pbr_csr07_index.htm).

The changes to the planned public spending cause total spending as a share of national income to fall earlier and faster than it would have done if no active decision to change public spending from 2010–11 had been made. Under the 2008 PBR plans, by 2013–14 total public spending is projected to be 41.5% of national income, compared with 43.0% of national income if the spending plans had not been cut in 2010–11 and the real growth rate of public spending thereafter had not been reduced.

In the 2008 PBR, the Treasury projected that the trend output of the economy would be 4% lower from Summer 2009 onwards as a result of the global credit shock. In other words, trend national income is now thought to be 4% lower each year after Summer 2009 than it would have been had the credit shock not occurred. This reduction in trend national income means that the same government cash spending plans would now be projected to absorb a larger share of national income. This has contributed to the rise in projected government spending as a share of national income seen in Figures 9.2 and 9.4. If the government wanted to share the permanent reduction in national output proportionately between the private sector and the public sector, and so return public spending as a share of national income to the level planned before the global credit shock, then it would need to reduce public spending in each year by about 4%. For instance, in

2013–14 the government would need to reduce public spending in that year by about 1.7% of national income (4% of 43.0%). This would see spending as a share of national income returning to about the level planned under CSR 2007. The lowering of public spending in 2013–14 by 1.5% of national income under the PBR spending plan changes could, therefore, be rationalised by the Treasury as a proportionate response to the fall in trend national income caused by the credit shock.

Even if the government did ultimately want to share the reduction in national output proportionately between the private and public sectors and bring public spending as a share of national income back to around the level planned under the CSR 2007, it still had a choice about the period over which to achieve this. As can be seen in Figure 9.4, the PBR 2008 plans imply that this reduction in public spending as a share of national income will be achieved by around 2015. The government could instead have chosen to extend further the period over which this adjustment takes place. This latter option would allow smaller cuts in spending as a share of national income over the years 2010–11 to 2015–16 but would consequently require these cuts in spending to continue for a longer period in order to bring spending as a share of national income back down to its previously planned level. The spending plan cuts pencilled in by the PBR for 2010–11 onwards would, therefore, help to bring public spending as a share of national income back down to the previously intended levels much faster than leaving spending plans unchanged would have done.

In the November 2008 PBR, the Treasury announced that it intended public sector net debt to be falling as a share of national income from 2015–16, thereby complying with its ‘temporary operating rule’ – see Chapter 5. The Treasury showed that this can be achieved by keeping public sector net investment (PSNI) constant as a share of national income, while reducing the current budget deficit by 0.5% of national income in both 2014–15 and 2015–16. This improvement in the current budget deficit is similar to that seen over the next Spending Review period, 2011–12 to 2013–14, and so could be achieved if current receipts and current spending grew at a similar rate over 2014–15 to 2015–16 as they did in 2011–12 to 2013–14. If current spending were to grow at 1.2% (the average real growth rate forecast for 2011–12 to 2013–14) and net investment were to grow at 2.5% (the trend rate of growth of the economy – thus keeping investment as a share of national income constant), then total public spending would grow at an average of 1.3% over 2014–15 to 2015–16.⁴ As shown in Figures 9.2 and 9.4, this would result in a further fall in public spending as a share of national income to 40.5% in 2015–16, the lowest level seen since 2003–04.

9.3 Spending Reviews under Labour to date

If the government were to stick with total real spending growth of 1.1% a year between 2011–12 and 2013–14, this would be less generous than the plans announced in any of Labour’s previous five Spending Reviews.

Table 9.1 compares the relative generosity of each of the reviews. The first column shows the average real spending growth over the three years of the review implied by the

⁴ These assumptions about spending growth require government revenues to remain roughly constant as a share of national income in order to achieve a strengthening of the current budget by 0.5% of national income in each year. In other words, this assumption implies negligible fiscal drag over this period.

Treasury's original cash plans. The second column shows the real growth that would have resulted if these cash plans had been kept to, bearing in mind that, in four of the five periods, inflation differed from the rates assumed by the Treasury when the plans were drawn up. Inflation in 1999–2000 and 2000–01 was lower than had been expected at the time of the July 1998 CSR, giving scope for a bigger real increase from given cash plans. Conversely, inflation in 2002–03 and 2003–04 was higher than expected at the time of the July 2000 Spending Review, reducing the real generosity of the cash plans. The third column shows the actual average growth in real spending over each of the Spending Review periods. These figures are essentially the same as those presented in Figure 9.2 – but note that the Spending Review periods overlap and therefore some years are double-counted.

Table 9.1. Comparison of Labour's Spending Reviews to date

Average annual growth in real public spending over:	Original spending plans	Adjusted for subsequent inflation	Eventual out-turn / Latest forecast
<i>Inherited Conservative spending plans</i> April 1997 to March 1999	1.0 ^a	0.6 ^a	0.0
<i>Comprehensive Spending Review, July 1998</i> April 1999 to March 2002	2.7	3.4	3.7
<i>Spending Review, July 2000</i> April 2001 to March 2004	3.2	2.9	4.9
<i>Spending Review, July 2002</i> April 2003 to March 2006	4.3	4.3	4.9
<i>Spending Review, July 2004</i> April 2005 to March 2008	3.2	3.3	3.1
<i>Comprehensive Spending Review, 2007</i> April 2008 to March 2011	2.0	2.3?	2.8?
<i>Spending Review 2010?</i> April 2011 to March 2014?	1.1?		

a. Original plans, and plans adjusted for inflation, from April 1997 to March 1999 refer to GGE(X) rather than TME.

Sources: Eventual inflation and latest spending estimates as Figure 9.2. Figures for each Spending Review from HM Treasury, *Financial Statement and Budget Report November 1996*, TSO, London, 1996; HM Treasury, *1998 Comprehensive Spending Review*, Cm. 4011, London, July 1998; HM Treasury, *2000 Spending Review*, Cm. 4807, London, July 2000; HM Treasury, *2002 Spending Review*, Cm. 5570, London, July 2002; HM Treasury, *2004 Spending Review*, Cm. 6237, London, July 2004; *2007 Pre-Budget Report and Comprehensive Spending Review*, Cm. 7227, London, October 2007. Documents available from http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm and <http://archive.treasury.gov.uk/siteindex.html>.

Table 9.1 indicates that real spending is now expected to grow faster over the period April 2008 to March 2011 than was envisaged at the time of the CSR 2007. This is a consequence both of inflation being lower than expected over the period as a whole and of the cash value of total government spending increasing above that which was originally planned in response to the current economic slowdown. Annual real growth in spending of 1.1% has been pencilled in for April 2011 to March 2014 (presumably the next Spending Review period), but uncertain future inflation presents some risk to this. If future inflation turns out to be higher than the Treasury projected at the time of the November 2008 PBR, then the cash spending plans pencilled in for 2011–12 to 2014–15 would result in a real increase in spending of less than 1.1% a year.

It is clear that if the government sticks to 1.1% a year real growth in public spending over 2011–12 to 2013–14 (and potentially only increases spending by 1.3% in 2014–15 and 2015–16), then this will be a considerably lower rate of increase than that planned, delivered or set to be delivered over any of the five previous Labour Spending Reviews. It will also be lower than the average real growth of 1.5% a year delivered over the 18-year period of Conservative governments from 1979 to 1997.

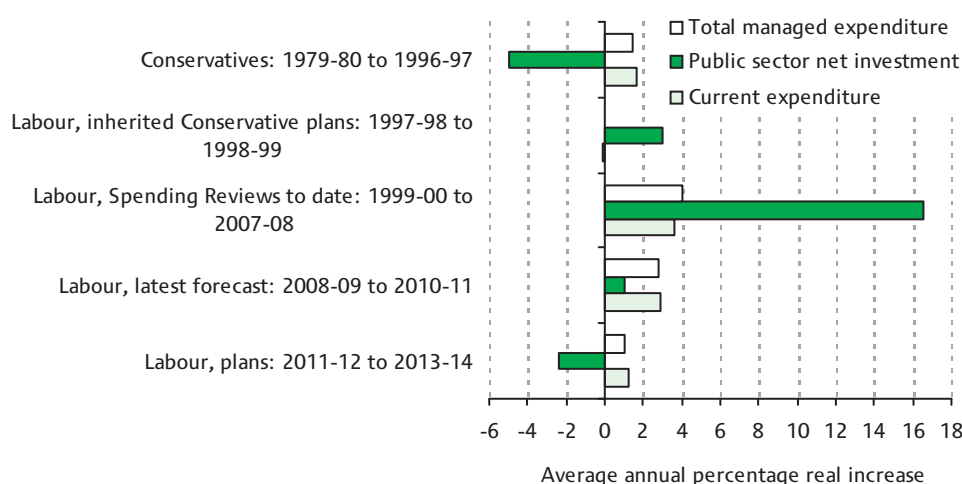
9.4 Scenarios for the next Spending Review

In the November 2008 PBR, the Treasury pencilled in real increases in total managed expenditure (TME) of just 1.1% a year for 2011–12, 2012–13 and 2013–14 – which we will assume is to be the period covered by the next Spending Review (although at the time of writing no announcement to this effect has been made by the government). As can be seen from Figure 9.2, this is the lowest annual growth in TME since 1998–99. This implies that the next Spending Review is going to be very tight, and especially painful for departments which have become accustomed to the large increases in spending they have received in recent years.

The Treasury also indicated in the November 2008 PBR how it intended the 1.1% real annual growth in total spending over 2011–12 to 2013–14 to be split between current and investment spending. Current spending is intended to grow by 1.3% in 2011–12, 1.2% in 2012–13 and 1.1% in 2013–14, giving an average annual growth of 1.2% per year. Public sector net investment, on the other hand, is expected to be held constant in cash terms at £33 billion each year, implying an average annual growth rate over the next Spending Review period of –2.4%.

Figure 9.5 shows the split of TME between current and investment spending under the 18 years of Conservative governments, under the Conservative plans inherited by Labour, under Labour to date, as forecast for the CSR 2007 period and as planned for the next Spending Review period. Whilst the next Spending Review period involves a slowdown in

Figure 9.5. Average TME, current spending and investment spending



Sources: As Figure 9.2.

both current and investment spending, in terms of growth rates the cash freeze and consequent negative real growth in investment spending represents a much bigger change from the recent past.

The planned squeeze on investment spending is in conflict with the government's stated policy regarding investment. In its November 2000 document *Planning Sustainable Public Spending: Lessons from Previous Policy Experience*, the Treasury criticised the investment spending decisions made by the previous Conservative governments, stating:

Lesson 5: Avoid a bias against capital investment

The previous framework made no distinction between capital and current spending, despite their different economic effects. Investment was not protected. As a result, capital programmes were cut as a way of meeting short term current pressures, with long term detrimental effects.

In the November 2008 review of the government's fiscal framework, the Treasury claimed it would continue to support the government's fiscal objectives in the current circumstances:

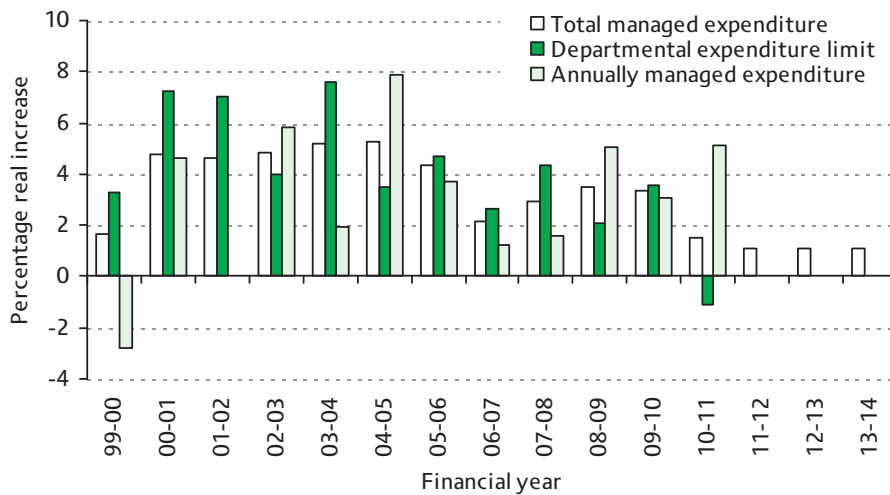
setting policies to balance the cyclically-adjusted current budget will continue to protect capital spending and support inter-generational fairness, maintaining investment now to support the long-term productivity and competitiveness of the economy.

This stated objective of maintaining investment seems rather inconsistent with the planned cash freeze in investment spending over the next Spending Review period pencilled in by the November 2008 PBR.

For government budgeting purposes, TME is split into two components – departmental expenditure limits (DELs) and annually managed expenditure (AME). DELs are yearly limits for departmental programme expenditure, which are formally set for three years at a time by Spending Reviews (but often subsequently revised). AME is expenditure that is not easily subject to firm limits set several years in advance, such as social security benefit payments. Some areas of spending in AME are largely out of government control in the short term. For instance, social security benefit payments are affected by the prevailing economic circumstances and government debt interest payments depend on past borrowing and market interest rates. By making a distinction in TME between DEL and AME spending, and making projections about areas of spending that can reasonably be predicted because the government has less discretionary control, it is possible to make some predictions about departmental spending over the next Spending Review period.

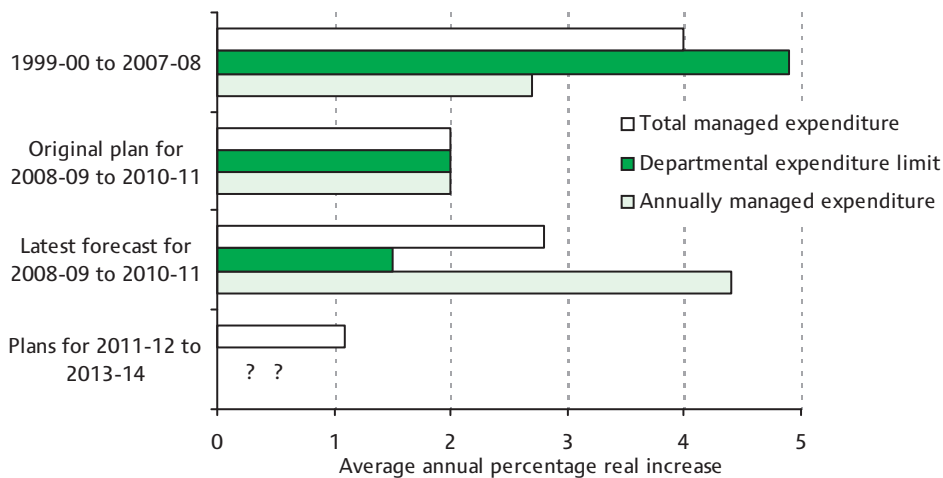
Figure 9.6 shows how the past annual percentage real increases in total spending under the current Labour government have been distributed between growth in DEL and growth in AME. The bars for total expenditure are the same as those in Figure 9.2. In the early years of the current Labour government, when growth in total expenditure was high, DEL grew rapidly relative to AME growth. In recent years and the predicted near future, TME and DEL growth have been and are expected to be lower, whilst AME growth has not been reduced in the same way. Even though departmental spending growth has been somewhat lower in recent years, over the whole period since 1999–2000 it has never been below 2%, with the exception of the current plans for 2010–11. Departmental spending growth is only negative in this year because, as mentioned earlier, the government has brought forward some departmental capital expenditure into the two

Figure 9.6. TME, AME and DEL growth



Sources: TME as in Figure 9.2. DEL and AME are from table 1.1 of the *Public Expenditure Statistical Analyses* 2004, 2005, 2006, 2007 and 2008; all documents available from http://www.hm-treasury.gov.uk/pespub_index.htm. Figures for 2007–08 onwards are from table B16 and paragraph 6.33 of HM Treasury, *Pre-Budget Report 2008*, London, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm).

Figure 9.7. Average TME, AME and DEL growth



Sources: As Figure 9.6.

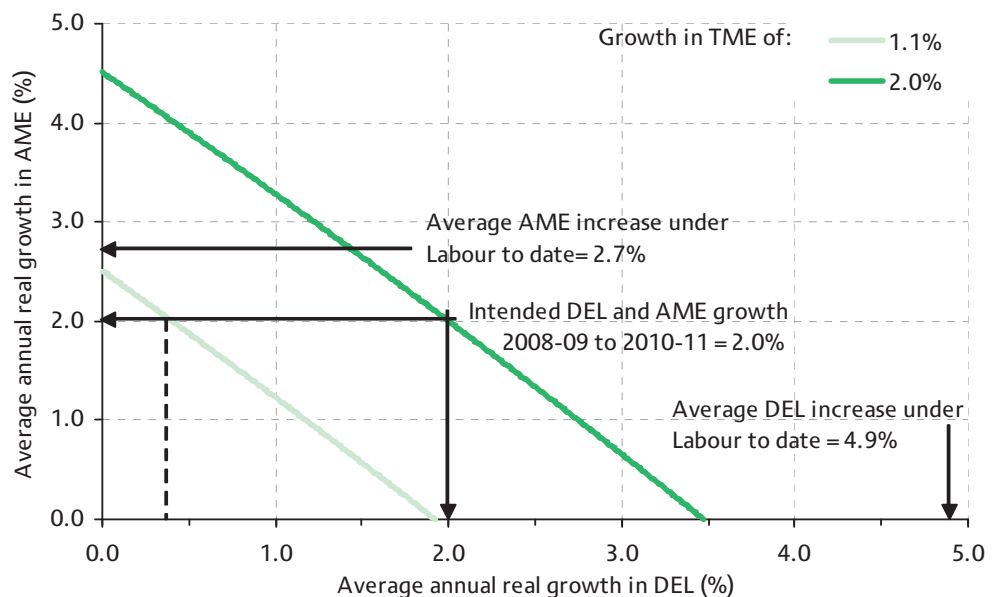
preceding years in an attempt to stimulate the economy in the face of the current economic downturn.

The history of average annual real growth in TME, DEL and AME under Labour to date is summarised in the top three bars of Figure 9.7. Under Labour since April 1999, overall DEL growth has been higher than AME growth, with an average real increase of 4.9% a year compared with 2.7% a year for AME. The 2007 CSR planned for DEL and AME both to grow at 2.0% a year over the period 2008–09 to 2010–11. However, the recent economic downturn has increased AME expenditure – mainly through higher social security payments and debt interest payments. Planned average DEL spending growth has been reduced, in large part due to the £5 billion ‘additional value for money savings’

and cuts to the NHS capital budget in 2010–11 that were described in Section 9.2. The net effect is that total spending growth is forecast to be higher than was originally planned.

The 1.1% a year average real increase in TME that the November 2008 PBR pencilled for 2011–12, 2012–13 and 2013–14 is lower than the growth in total expenditure in any year under Labour since 1999–2000. Within this overall spending envelope, there will be a trade-off between growth in departmental spending and growth in AME. The government has yet to make any announcement about these allocations. The diagonal lines in Figure 9.8 show the trade-off between growth in departmental spending and growth in AME over 2010–11 to 2013–14 that is consistent with total expenditure increasing by 1.1% per year (as set out in PBR 2008) and 2.0% per year (the intended growth under CSR 2007 for 2008–09 to 2010–11), included for comparative purposes. The options for the government are limited. In the 2007 CSR, the 2.0% growth in TME was intended to be split equally, with both DEL and AME growing at 2.0%. Even if all the spending growth over 2011–12 to 2013–14 could be allocated to departmental spending, this would result in real increases of only 1.9% a year, which is less than that intended for the CSR 2007 period and considerably less than the average under the current Labour government to date. Growth in AME of 2.0% would lead to DEL growth being restricted to 0.4%. If the government were to allocate the growth over 2011–12 to 2013–14 equally, as was intended for the CSR 2007 period, both DEL and AME would only grow at 1.1% a year. Alternatively, the government could decide to increase TME more quickly than the 1.1% it has currently pencilled in. However, this would require greater financing from either more borrowing or higher tax revenues. If TME were to grow at 2.0% a year instead of 1.1%, then an additional £7 billion would be required in 2011–12, £14 billion in 2012–13 and £23 billion in 2013–14.

Figure 9.8. Trade-off between spending on DEL and AME, 2011–12 to 2013–14



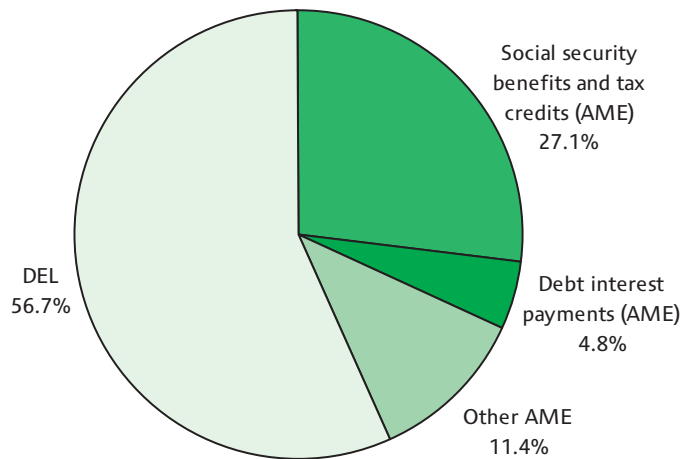
Sources: As Figure 9.6.

The government has yet to indicate how the growth of total expenditure will be allocated between DEL and AME or between departments. However, there are some areas of spending in AME that are largely out of government control. Growth of spending in these

areas can be projected, and subtracting these predictions from the total expenditure growth the government has pencilled in therefore provides an indication of how tight spending growth will need to be for all other sectors of government spending.

Figure 9.9 shows the latest forecast for the composition of TME in 2010–11. Departmental spending is expected to be slightly more than half (56.7%) of total spending. The largest component of AME is social security benefits, which together with tax credits make up more than a quarter of total spending. Debt interest payments are projected to be 4.8% of total government spending in 2010–11, leaving spending on all other areas of AME to contribute only 11.4% to total government spending.

Figure 9.9. Planned composition of TME in 2010–11



Source: HM Treasury, *Pre-Budget Report 2008*, London, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm).

Debt interest payments are an increasingly large component of public spending. In the November 2008 PBR, the government suspended its fiscal rules and announced a large fiscal stimulus package to help the economy through the downturn. Net borrowing is projected to peak at £118 billion in 2009–10, but the public sector net debt is forecast to keep increasing as a share of national income until 2015–16. The implication of this is that interest payments on the accumulated public sector debt will, on average, increase rapidly over the next few years. In the November 2008 PBR, the government projected that real public sector net debt interest payments would grow on average by 7.7% a year between 2010–11 and 2013–14 (rising from 2.1% of national income to 2.4% of national income – see Figure 3.2 for how public sector net debt interest as a share of national income has changed over time). Subtracting this from the 1.1% a year growth in total expenditure that the government has pencilled in leaves only a 0.7% average annual real growth for all other areas of spending, as shown in Table 9.2.

Spending on social security, which accounts for more than half of AME, is largely out of the government's hands. Projections of future benefit expenditure made after Budget 2008 by the Department for Work and Pensions predicted that total benefit expenditure would grow by an annual average of 2.0% per year in the period 2010–11 to 2013–14. Whilst this projection was made before the economy started to enter a recession, the underlying assumptions of economic trends from 2010–11 onwards are largely unchanged between the 2008 Budget and the November 2008 PBR (though the actual levels predicted for 2010 now differ). This implies that the predicted average annual real

growth rate of 2.0% might still be reasonable.⁵ This growth rate of 2.0% is based on the assumption that the government re-links the uprating of the basic state pension to average earnings from April 2012 as is currently planned. Assuming that the government now decides this is not affordable in 2012 and delays re-linking until April 2014 (or later), the projected growth rate of total benefit expenditure would be reduced to 1.7% a year over 2010–11 to 2013–14. The effect of changing the uprating of the basic state pension is discussed in more detail in Section 9.5.

Table 9.2. Possible future Spending Review allocations under PBR 2008 spending plans

Real average annual growth in spending on:	
<i>Provisional spending plans</i>	
TME	+1.1
<i>Projections</i>	
Net debt interest	+7.7
Remainder (TME less net debt interest)	+0.7
<i>Projections</i>	
Social security benefits and tax credits	+1.7
Remainder (TME less net debt interest and social security benefits and tax credits)	+0.4
<i>Assumptions</i>	
Other AME (i.e. total AME excluding net debt interest and social security benefits and tax credits)	+1.9
Remainder (total DELs)	0.0
Total AME	+2.5
Total DELs	0.0

If we assume that benefit expenditure grows at 1.7% a year, and that tax credit expenditure grows at the same rate, then all other areas of spending (excluding debt interest payments) would only be able to grow at 0.4% to keep total spending growth at 1.1% a year. This projection for the growth of social security is particularly important since expenditure on social security is over a quarter of total public spending. However, delivering large reductions in future social security spending would, at least in the near term, not be possible without leaving a combination of pensioners, families with children and those receiving incapacity benefits worse off than they would be under current policies.

If other AME increases by 1.9% a year in real terms – the average increase for these areas of spending forecast in the 2007 Comprehensive Spending Review for the period from April 2008 to March 2011 – then total AME would have an average annual real growth of

⁵ Budget 2008 forecast that the economy would be operating at trend from 2012 onwards, whereas PBR 2008 forecast that the economy would not return to trend until 2013. Therefore, growth in social security spending may be slightly lower than the Budget forecast over this period as the economy rebounds to trend and consequently unemployment continues to fall. However, for public finance projections, the Treasury assumes unemployment is constant when it is projected by independent forecasters to fall, and so Treasury planned social security spending will not be affected by the new projections of a later return to trend.

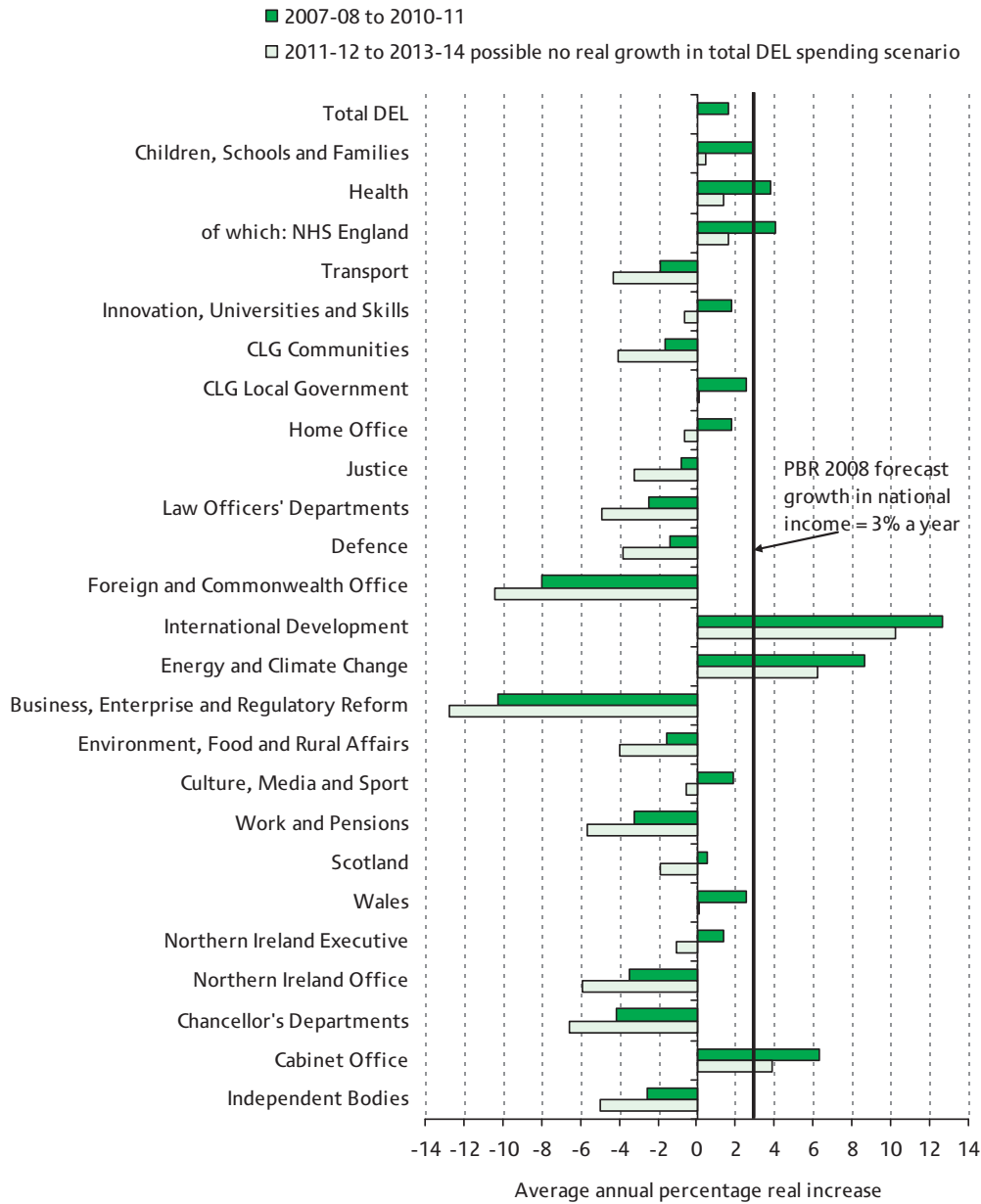
2.5%. This seems a reasonable assumption for the growth of other AME, which is projected to comprise only 11.4% of total public spending in 2010–11 (as shown in Figure 9.9). The largest component in other AME is locally-financed expenditure, which at the time of the 2007 CSR was forecast to account for 39.2% of other AME in 2010–11 and grow over the 2007 CSR period by an average annual real rate of 2.0%. While it may be possible for the government to lean on local authorities to reduce their future spending increases, it has already been doing this in recent years, and applying much further pressure may not be easy. The fastest-growing large component of other AME is net expenditure on public service pensions, which, whilst projected at the time of the 2007 CSR to be only 4.7% of other AME in 2010–11, was projected to grow at an average rate of 13.6% a year over the CSR 2007 period. Again, this is an area of expenditure over which the government has limited direct control as public service pensions expenditure in 2010–11 to 2013–14 will be almost entirely determined by the accumulated pension rights of those already retired or who will retire in this period.

If total AME grows at an average of 2.5% a year and the government sticks with total real spending growth of 1.1% a year, then total departmental expenditure would have to remain frozen in real terms between 2010–11 and 2013–14. The next Spending Review therefore looks set to be a painful one with very tight spending settlements.

How might the spending freeze be divided between departments?

These implied spending plans are so tight that all major spending departments are likely to be affected. As a result of the last Spending Review, over which period total DEL is now forecast to grow by 1.5%, the areas that have done relatively well are health, education, overseas development, energy and climate change, and the Cabinet Office budget for the intelligence agencies. Some departments actually received real cuts in spending – in particular, the Chancellor’s Departments, the Department for Work and Pensions, the Foreign and Commonwealth Office, the former Department for Business, Enterprise and Regulatory Reform, and the Northern Ireland Office. Figure 9.10 shows how total DEL growth over the last Spending Review period is being shared out according to the latest forecasts. Also shown in Figure 9.10 is the implied real growth in spending on each area if there is no real growth in total DEL over the next Spending Review period and assuming the pain is shared equally – in other words, each department has an equal percentage point reduction in its annual growth rate over the next Spending Review period compared with over the CSR 2007 period. Only seven departments – Children, Schools and Families; Health; Energy and Climate Change; the Cabinet Office (intelligence agencies); International Development; CLG Local Government; and the Wales Office – would maintain positive real growth rates. The cash squeeze on investment spending (shown in Figure 9.5) means that capital-intensive departments such as transport and housing might find their budgets even more constrained than most, and more constrained than the scenario outlined in Figure 9.10.

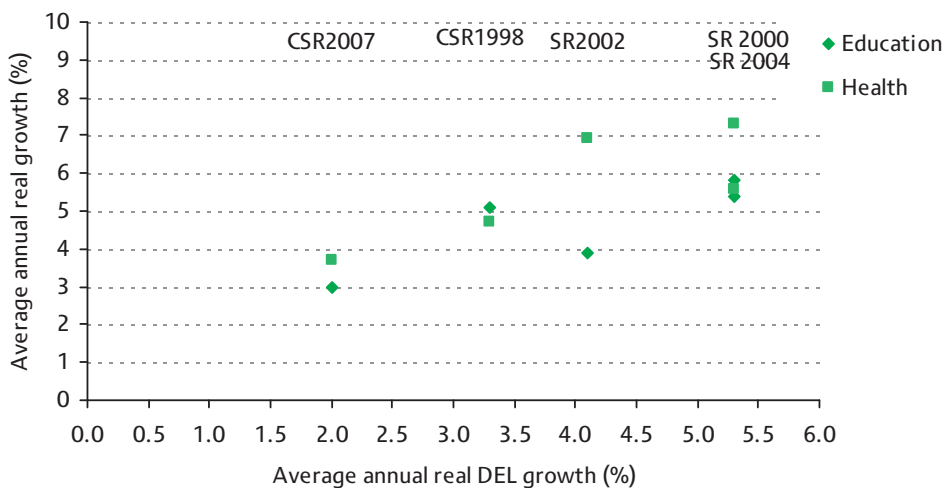
Figure 9.10. Possible departmental spending allocations



Sources: Spending growth projections for 2008–09 to 2010–11 are calculated from projected spending in table B18 of HM Treasury, *Pre-Budget Report 2008*, London, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm) assuming depreciation is the same as that projected in April 2008 (calculated from tables 1.5, 1.10 and 1.12 of *Public Expenditure Statistical Analyses 2008*, available from http://www.hm-treasury.gov.uk/pespub_index.htm). GDP deflators are up-to-date as of 23 December 2008 from HM Treasury website (http://www.hm-treasury.gov.uk/d/gdp_deflators.xls).

Figure 9.10 shows that even health spending would, under these assumptions, start to fall as a share of national income, which is forecast by the Treasury to grow by 3% a year over the three years 2011–12 to 2013–14 (marked by the solid vertical line on Figure 9.10). Spending on education comes from both central government departments and local authority expenditure (which is part of AME). The effect of no real growth in overall DEL on total education spending would depend on how local authorities choose to vary their spending, but Figure 9.10 shows the main department responsible for central government funding of education – the Department for Children, Schools and Families – would have its budget falling as a share of national income under these assumptions. The Department for Innovation, Universities and Skills (DIUS) would even experience a real decline in its budget. This implies that total education spending is likely to fall as a share of national income; the possible consequences of this for higher education are discussed in Section 9.5.

Figure 9.11. Planned spending on education, health and DELs, under Spending Reviews to date



Sources: As Table 9.1

Whilst health and education spending have grown faster than most other spending areas under Labour to date, these settlements have not been invariant to the size of the overall spending envelope. Figure 9.11 shows planned average annual real growth in education and health spending compared with total DEL growth under each of the five Labour Spending Reviews to date. It can be seen that lower planned real DEL growth is associated with less generous planned growth in health and education spending (there is a positive correlation). This suggests that not even these key departments will be immune from the spending squeeze over 2011–12 to 2013–14.

Implications for the quality of public services

The preceding analysis shows that if the government adheres to the overall envelope of 1.1% per year real spending growth over the next Spending Review period, virtually all spending areas will receive very tight settlements (particularly when compared with the real increases in spending that have been delivered under Labour to date). What then does this mean for the future quality of public services?

It may be possible to achieve some real spending cuts without damaging the quality of public services delivered. In response to a question from the Treasury Select Committee regarding the £5 billion extra efficiency savings announced in the November 2008 PBR, Mr Darling answered:

... if you consider that we spend over £400 billion in public spending on departmental expenditure I defy anybody to tell me it is not possible to find £5 billion worth of efficiency savings. Every public body can. In fact, there is not any organisation in the world that cannot be more efficient if it puts its mind to it.

The government seems confident that the final conclusions of its Operational Efficiency Programme and Public Value Programme – two programmes launched in the 2008 Budget to identify potential efficiency savings in public spending and service provision – will find sufficient savings for public services to be expanded and improved over the next Spending Review period. However, with the government confident that so many efficiency savings have already been delivered in recent years and with an extra £5 billion pencilled in for 2010–11, it will become increasingly difficult to find and root out further inefficiencies.

Even if the government can find and deliver efficiency savings, it is not clear that we should treat these as a way to make spending cuts ‘painless’. The government should be aiming to run the public services as efficiently as possible at all times, so presumably it would have wished to implement efficiency savings even if there were no need to make cuts – thereby increasing the quantity and quality of public services delivered for a given amount of spending. Efficiency savings improve the quality of services for a given level of public spending. Spending cuts mean that the quantity and quality of public services will be lower than they would have been in the absence of the cuts (and this is true whether or not efficiency savings are being made at the same time).

The government also has a commitment to re-link the uprating of the basic state pension to average earnings before 2015 and ambitious targets to reduce child poverty and increase international aid, in addition to less specific aspirations for world-class public services. Achieving such objectives would certainly not be helped by setting such tight budgets. The next section looks at some of the unattractive trade-offs that the government might need to consider.

9.5 Potential implications for policy outcomes

The projections in Section 9.4, which imply that there may be no real DEL growth over the next Spending Review period, assume that the indexation of the basic state pension is not re-linked to average earnings during that period, and that no additional funds aimed at reducing child poverty are made available. These policies and the likely impact of the low spending growth planned for the next Spending Review period are each discussed below.

A second implication of the tight growth in total spending highlighted by the projections in Section 9.4 is that education spending could fall as a share of national income. This is in contrast to the manifesto commitments made by the Labour Party in 1997, 2000 and 2005 to increase the share of national income devoted to education over the course of each parliament. Recently, Gordon Brown has focused on schools, with a target

announced in the 2006 Budget to increase spending per pupil in the state sector to the level spent per pupil in the private sector in 2005–06. The CSR 2007 planned for per-pupil funding to rise by almost 10% in real terms, to over £6,600 by 2010–11, but this would still be £2,533 below the target level. If the government intends to continue its policy of increasing schools funding, other areas of education are likely to see their budgets squeezed. Perhaps the most likely casualty would be higher education (HE) – Figure 9.10 indicated the possibility of real decline in the budget of the DIUS over the next Spending Review period. The possibilities for reducing public funding of HE and the likely consequences are therefore also discussed below.

Earnings indexation of the basic state pension

In the 2006 White Paper *Security in Retirement: Towards a New Pensions System*,⁶ the government stated (p. 17):

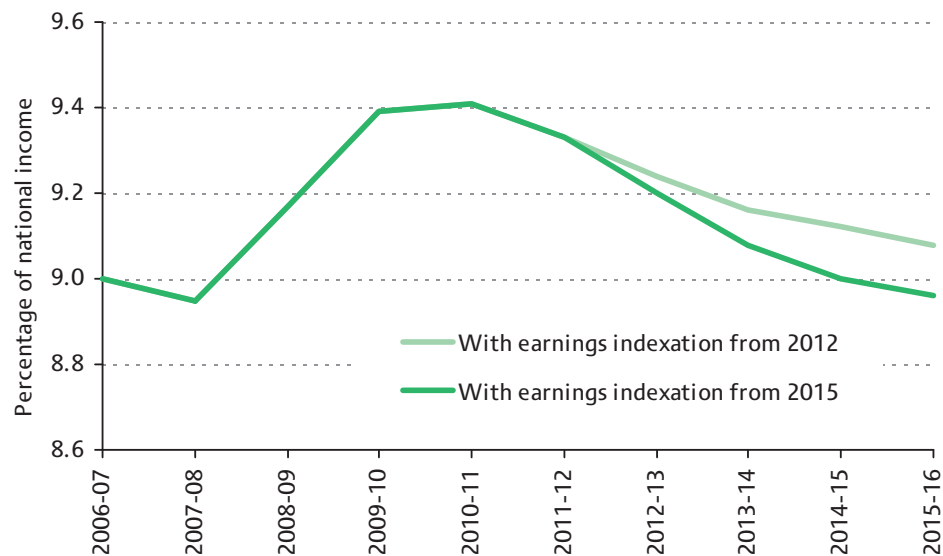
During the next Parliament, we will re-link the uprating of the basic State Pension to average earnings. Our objective, subject to affordability and the fiscal position, is to do this in 2012, but in any event by the end of the Parliament at the latest. We will make a statement on the precise date at the beginning of the next Parliament.

There is no doubt that the government's fiscal position for 2012 is expected to be considerably worse now than was expected in 2006. Indeed, it is difficult to envisage that the drafters of this paragraph contemplated any possibility of a 'fiscal position' as bad as the one that has since materialised. Therefore it seems likely that re-linking the uprating of the basic state pension to average earnings will be delayed beyond April 2012. The Department for Work and Pensions has projected that implementing the change in 2012 would cost £0.7 billion in 2012–13 and £1.4 billion in 2013–14. Based on these estimates, Figure 9.12 shows the difference in total benefit expenditure when the earnings indexation is introduced in 2012–13 as opposed to being introduced in 2015–16.

Introducing earnings uprating of the basic state pension from 2012–13 would cause real growth in total benefit expenditure over the next Spending Review period to average 2.0% a year. Given our projections, outlined in the previous section, for the growth of net debt interest payments and other AME, this would result in real DEL growth between April 2011 and March 2014 of –0.1% a year, to ensure the overall spending envelope grows by 1.1% a year. Deferring earnings uprating of the basic state pension to beyond this period would lower forecast growth in spending on social security benefits to 1.7% a year and allow spending on DELs to be preserved in real terms. It might therefore be unlikely that the government will want to take on this additional fiscal burden during a period when the public finances already look set to be very tight. The government could delay the change to 2015, by which time a stronger economy and falling debt interest payments may help to relieve some of the pressure on the government's finances.

⁶ Available on DWP website at <http://www.dwp.gov.uk/pensionsreform/whitepaper.asp>.

Figure 9.12. The effect on total benefit expenditure of re-linking the uprating of the basic state pension to average earnings



Source: Authors' calculations from total benefit expenditure predictions from table LT1 of DWP, *Benefit Expenditure Tables Long Run Projections* (<http://www.dwp.gov.uk/asd/asd4/LT1.xls?x=1>) and costing of earnings uprating the basic state pension from DWP, quoted in the House of Commons Select Committee on Work and Pensions, Fourth Report, session 2005–06 (<http://www.publications.parliament.uk/pa/cm200506/cmselect/cmworpen/1068/106807.htm>).

Delaying the earnings indexation of the basic state pension would save the government money over the next Spending Review period, but will clearly involve a social cost. Pensioners will have lower increases in their pensions over the period, which may increase income poverty among pensioners, especially among those low-income pensioners not taking up the means-tested benefits to which they are entitled, who are often reliant on the basic state pension for the majority of their income in retirement. Researchers at IFS have estimated⁷ that introducing earnings indexation in 2015 as opposed to 2012 would increase the proportion of pensioners living in poverty in 2017–18 from 19.8% to 20.4% (an increase of around 60,000 individuals), where being in poverty is defined as having less than 60% of contemporaneous median household income. Evidence submitted to the Select Committee on Work and Pensions by DWP in 2006 estimated that if the basic state pension were indexed to earnings from April 2012, then 29% of pensioners would be entitled to the means-tested pension credit in 2050, while if the earnings link were delayed until April 2015, this figure would be 32%. The short-term savings to the Treasury of delaying the indexation would therefore be at least partially mitigated by the social and political costs of higher pensioner poverty.

Child poverty

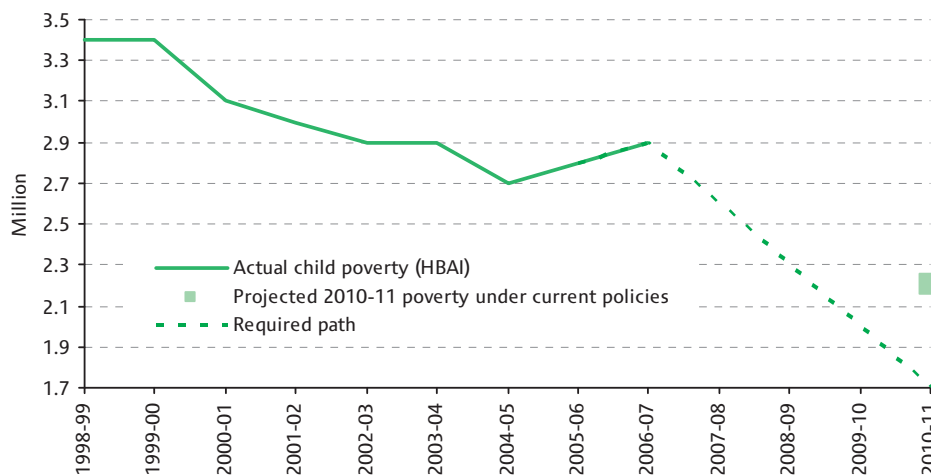
In 1999, the then Prime Minister Tony Blair announced a radical ambition – to ‘eradicate child poverty in a generation’. Intermediate targets introduced by the Treasury were to reduce child poverty by a quarter of its 1998–99 level by 2004–05 and by a half of its

⁷ M. Brewer, J. Browne, C. Emmerson, A. Goodman, A. Muriel and G. Tetlow, *Pensioner Poverty over the Next Decade: What Role for Tax and Benefit Reform?*, IFS Commentary 103, 2007 (<http://www.ifs.org.uk/publications/3991>).

1998–99 level by 2010–11, where child poverty is defined as a child living in a household with less than 60% of contemporaneous median household income.

Figure 9.13 shows the level of child poverty since 1998–99. The number of children living in relative poverty fell reasonably steadily between 1998–99 and 2004–05 when it reached 2.7 million children. But despite this, the target for 2004–05 was missed by 200,000 children, and in the following two years child poverty actually increased slightly. The dashed line in Figure 9.13 shows how child poverty would have to fall between 2006–07 and 2010–11 in order to meet the target of no more than 1.7 million children in income poverty in 2010–11, assuming poverty were to fall linearly over that period. The required rate of poverty reduction is faster than that achieved over the first half of the decade. The green square shows the latest projection for the level of child poverty in 2010–11. Assuming current policy remains unchanged, the government is projected to miss the target by 0.6 million children. If the government intends to meet the 2010–11 target, it will need to allocate additional funding in order to do so.⁸

Figure 9.13. Actual, required and projected path of child poverty



Notes: Child poverty is defined as living in households in the UK with less than 60% of median household income (before housing costs) using the modified OECD equivalence scale.

Sources: M. Brewer, A. Muriel, D. Phillips and L. Sibieta, *Poverty and Inequality in the UK: 2008*, IFS Commentary 105 (<http://www.ifs.org.uk/comms/comm105.pdf>).

The original work forecasting child poverty in 2010 and 2020 showed that under the usual rules for uprating benefits, tax credits and taxes, child poverty would rise significantly between 2010–11 and 2020–21. Even if the government meets the target in 2010–11, it will almost certainly need to find additional funding to reduce child poverty between 2010–11 and 2020–21. This would put more pressure on public spending over the next Spending Review period (2011–12 to 2013–14) and for the two subsequent years of planned low growth in public spending. Alternatively – and perhaps more likely

⁸ This assessment was made after Budget 2008, and reported in evidence to the Treasury Select Committee. See Q67 of the oral evidence in House of Commons Treasury Committee, *The 2008 Budget*, HC 430, London (<http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/430/430.pdf>). There have been no tax or benefit measures announced since then that will have a significant impact on relative child poverty, but work in progress at the time of writing was updating these forecasts to account explicitly for the rises in child poverty since 2004–05, and the current economic conditions. The original forecast was made in M. Brewer, J. Browne and H. Sutherland, *Micro-Simulating Child Poverty in 2010 and 2020*, Joseph Rowntree Foundation, York, 2006 (<http://www.jrf.org.uk/bookshop/eBooks/9781859355091.pdf>).

if the government is to stick to the provisional spending figures implied by the November 2008 PBR through to April 2016 – the numbers of children living in income poverty might be likely to persist above the government’s target for 2010 for some time beyond then.

Higher education

Section 9.4 indicated the possibility of a real-terms freeze in total departmental expenditure over the next CSR period. As Figure 9.10 showed, if the burden of this were spread equally across government departments, DIUS would see its allocations fall in real terms over this period. At the same time, the government views investment in innovation and skills as essential for future national prosperity, so any tightening of the purse strings would pose clear challenges for the government’s long-term economic and social objectives. An important aspect of the innovation and skills agenda is higher education (HE), the funding of which will be the subject of a government review later this year. This section explores a variety of options – some of which the funding review is expected to consider – for limiting public spending on HE while still attempting to meet departmental targets and longer-term strategic objectives.

Some cost-saving measures (brought about because DIUS had underestimated the cost of some student support reforms made in 2007) were announced last October, to be implemented in 2009–10.⁹ The Secretary of State for Innovation, Universities and Skills, John Denham, set out the following changes:

- A reduction in grants for new students from middle-income families, who will receive partial instead of full maintenance grants. The income thresholds for partial maintenance grants will be reduced, meaning that fewer new students will be eligible for them, as will the generosity, meaning that those who remain eligible will receive less than they would have done otherwise. This is expected to save £100 million a year from 2009–10 onward. However, the government might be reluctant to use this as a vehicle for further reductions in departmental expenditure given its aim of increasing access to HE – particularly amongst those from low- and middle-income backgrounds.
- A cap of 10,000 on the number of additional student places to be created in 2009–10, revised downward from 15,000. This represents a considerable slowdown in the expansion of the HE sector when set against the increases in student numbers of approximately 20,000 in 2006–07, 26,000 in 2007–08 and 15,000 in 2008–09. This would save roughly £30 million in 2009–10,¹⁰ with savings in future years if further caps on additional student numbers are announced. But despite the fiscal pressures operating in the background, a squeeze on HE enrolment would probably not be seen as an attractive option for further savings because it would severely undermine the government’s progress towards its target of a 50% HE participation rate by 2010. This objective has already proved challenging in recent years, with the participation rate stubbornly hovering around 40% since the start of the decade. Moreover, the government stated, when the cap was announced, that it still intends to increase HE student numbers year on year.

⁹ Written ministerial statement provided to the House of Lords, 29 October 2008; see http://www.dius.gov.uk/speeches/denham_ministerial_statement_291008.html.

¹⁰ Based on latest available estimates of public HE expenditure per student in annex 2 of the DIUS Departmental Report 2008; see http://www.dius.gov.uk/docs/about/21076_DIUS%20AR&A_Web_NEW.pdf.

Commitments made in the same announcement were to maintain the ‘unit of funding’ (broadly speaking, public expenditure on teaching in HE per student) and the ring-fenced science budget. Fulfilling these commitments while increasing student numbers would make it unlikely that resources could be freed up from the department’s HE budget and reallocated towards other areas. Furthermore, Mr Denham pledged to increase investment in further education, limiting the scope for savings elsewhere in the DIUS budget. With these constraints in mind, a few options remain to ease cost pressures during the next CSR period. This year’s HE funding review might consider ways of reducing the taxpayer burden of HE while still maintaining the unit of funding and growth in the number of places – in which case it is likely that the private contribution to HE would have to rise.

Raising or removing the cap on tuition fees – currently £3,145 – would be one way of increasing the private contribution. But tuition fees are not payable up front; they are covered in full by a fee loan provided by the government, which is then paid back after graduation in the form of salary deductions. The terms of repayment for the fee (and maintenance) loans are quite favourable to the borrower:

- payments are only made once annual earnings surpass £15,000;
- the interest rate levied is equal to RPI inflation¹¹ rather than the government’s cost of borrowing or a commercial rate (both of which are usually higher);
- any student debt outstanding after 25 years is written off.

These features, collectively known as the ‘loan subsidy’, ensure that the value of future graduate repayments is lower than the cost to the government of providing the loans. The government has forecast that for every £1 of fee loans issued, only 67 pence will eventually be recouped.¹² The resulting cost to the taxpayer of fee deferral is planned to reach £782 million by the end of the current CSR period; while universities might benefit from charging higher fees, the burden on the taxpayer would grow further if an increase in fees were matched by an increase in fee loans with the same repayment terms as currently. To avoid higher costs, the government could provide an unsubsidised loan to cover any additional fees above the current cap, or it could require the additional fees to be paid up front by students.¹³ Alternatively, the government could find savings elsewhere by reducing the amount of research and capital funding allocated to universities, or by abandoning the commitment to maintain the unit of funding (since no time scale was attached to this) and reducing teaching grants to universities at the same time.

Instead of increasing fees, the government could reform the repayment terms themselves in order to reduce the value of the loan subsidy, which may be an attractive option given the sums involved. As maintenance loans are subsidised in the same way as fee loans (at a planned cost of £606 million in 2010–11), the total cost to the exchequer of subsidised

¹¹ Thus, if inflation falls to 0%, graduates would not pay any interest on their student loans. At the time of writing, DIUS ministers had not announced what they would do in the event of deflation; as the rules currently stand, graduates could receive interest on their student loans if this scenario were to arise.

¹² For maintenance loans, issued with the same repayment terms, only 79 pence out of every £1 lent to students is expected to be recouped. Source: written answer provided to the House of Commons, 4 February 2008 (<http://www.publications.parliament.uk/pa/cm200708/cmhansrd/cm080204/text/80204w0046.htm>).

¹³ For further analysis exploring the government’s options if it allows the fee cap to be raised, see J. Chester and B. Bekhradnia, *Funding Higher Fees: Some Implications of a Rise in the Fee Cap*, Higher Education Policy Institute, Oxford, April 2008 (<http://www.hepi.ac.uk/pubdetail.asp?ID=250&DOC=Reports>).

loans is forecast to reach £1.4 billion per year by the end of the current CSR period – about 13% of the resource DEL budget for HE. There are many ways of making the repayment terms less generous for graduates, some of which – such as replacing the zero real interest rate with the government’s cost of borrowing – have been advocated by influential commentators in this area.¹⁴ Recent work by IFS researchers has estimated that if student loans carried a real interest rate of 2.5% instead of 0%, the government would on average save £2,800 per graduate (expressed in today’s prices).¹⁵ Increases in the interest rate may raise concerns about the burden of graduate debt levels, but those graduates with the lowest lifetime earnings would be the least affected by this measure because of the debt write-off provision.

Other options to reduce the generosity of the loan subsidy include postponing the debt write-off point, reducing the earnings threshold above which repayments are made, or abandoning the inflation indexation of the earnings threshold (due to start in April 2010). Estimates of the savings from these measures are not available but it is clear that they would increase the total amount of money that graduates repay. However, compared with an increase in the interest rate, these options are more regressive – that is, among those graduates who are making repayments, these options would hit the lowest earners the hardest.¹⁶

One final aspect of HE funding that has implications for the broader public finances is the student loan book – the portfolio of all loans issued to HE students and the claims on future repayments through the PAYE or self-assessment processes. In the National Accounts, student loans count as public debt as they are financed by the sale of gilts, but because they are financial transactions, they lie outside TME. As a result, the creation of additional loans does not affect expenditure or net borrowing (except through the extra interest payments that must be made to service the new debt). The government announced in Budget 2007 its intention to sell off £6 billion – about a third of the book’s total value at the time – worth of student loans by the end of 2010–11, with the possibility of more sales thereafter, and it has since passed legislation enabling it to do so. However, selling the rights to student loans would not significantly alleviate the pressure of tighter spending settlements during the next CSR period (although the reduction in public sector net debt, and any resulting falls in debt interest payments, may still be attractive to the government).

9.6 Conclusions

The November 2008 PBR pencilled in 1.1% real annual growth in public spending over 2011–12 to 2013–14, presumably the three years to be covered by the next Spending

¹⁴ See, for example, N. Barr, *Funding Higher Education: Policies for Access and Quality*, House of Commons Education and Skills Committee, 24 April 2002 (http://econ.lse.ac.uk/staff/nb/Barr_Selcom020424.pdf).

¹⁵ L. Dearden, E. Fitzsimons, A. Goodman and G. Kaplan, ‘Higher education funding reforms in England: the distributional effects and the shifting balance of costs’, IFS Working Paper WP18/07, October 2007 (<http://www.ifs.org.uk/wps/wp1807.pdf>). The figure of £2,800 is the authors’ own calculation based on a male:female ratio among graduates of 42:58; source: table 1.2 of Higher Education Statistics Agency, *Destinations of Leavers from Higher Education Institutions, 2007* (http://www.hesa.ac.uk/dox/dlhe_longitudinal/0203/DLHE_Long_2002_03_FINAL.pdf).

¹⁶ One exception to this would be raising the rate at which repayments are made (currently 9%) beyond the £15,000 earnings threshold, thereby making graduates pay off their debt faster. Higher-earning graduates would be the most affected by any increases in this percentage, so it would be a progressive measure (among graduates).

Review. This is less than a third of the average increase in public spending seen over the previous five Labour Spending Reviews, and less than the average growth over the 18 years of Conservative governments between 1979–80 and 1996–97. If delivered, these plans would reduce total public spending by 2.5% of national income over the three years – equivalent to £37 billion in today's terms. However, because the deterioration in the outlook for the UK economy over the next few years has been so large, this spending squeeze will only just be sufficient to bring public spending as a share of national income back down towards the levels planned in the CSR 2007.

If these spending plans are adhered to, difficult decisions would need to be made in the next Spending Review. Under a plausible scenario in which net debt interest payments grow in real terms by 7.7%, underlying social security and tax credit expenditure grow at 1.7%, and all other annually managed expenditure grows at 1.9%, overall departmental spending would have to remain frozen in real terms over the three years 2011–12 to 2013–14.

A real-terms freeze in total DEL would make settlements in the next Spending Review very tight. If the pain were shared equally, so that each department had an equal percentage point reduction in its annual growth rate over the next Spending Review period compared with the CSR 2007 period, only seven departments would maintain positive real growth rates. Even health and education, whilst maintaining positive growth in spending under this assumption, might see their spending fall as a share of national income. The November 2008 PBR also announced a planned cash freeze in investment spending over 2011–12 to 2013–14. This squeeze on investment means that capital-intensive departments such as transport and housing are likely to find their budgets even more constrained than most.

Low growth in education spending could result in a squeeze in public funding for higher education, given Gordon Brown's ambitions for spending on state schools. Whilst opportunities exist for reducing public funding for HE, these generally involve increasing the costs borne by graduates and might conflict with government objectives to widen and increase participation.

The low growth in public spending also has implications for some of the government's specific policy objectives. One likely outcome is that the government will choose to delay the earnings indexation of the basic state pension past April 2012 so that social security expenditure does not grow so quickly at a time when restrictions on overall spending growth are so tight. Those low-income pensioners who do not take up the means-tested benefits to which they are entitled and are reliant on the state pension for their income would lose the most from this change. Latest projections for the government's 2010 child poverty target indicate that the government is on course to miss its own target by 0.6 million children, and would be further adrift of its challenging 2020 target. This could imply that additional resources will need to be found over the next Spending Review period or else the numbers of children in poverty could persist above the government's target for 2010 for some time beyond that date.

The government seems confident that it will find sufficient efficiency savings for public services to be expanded and improved over the next Spending Review period despite the low increase in public spending. However, with so many efficiency savings being delivered in recent years, it will be increasingly difficult to find more. Alternatively, the government could decide to increase public spending more quickly than the 1.1% a year that was pencilled in by the November 2008 PBR, but this would require additional

resources. Increasing real public spending by 2.0% a year over the three years – which is the rate of increase initially intended for the period covered by the CSR 2007 – would require an additional £20 billion in today's terms in 2013–14. These additional resources would have to come from higher taxes or higher borrowing.

10 Value added tax

Thomas F. Crossley, David Phillips and Matthew Wakefield (IFS)

Summary

- VAT is an important source of government revenue, forecast to raise £82.6 billion or 16% of total tax receipts in 2008–09. Like taxes on earnings, VAT distorts the choice between leisure and consumption. Because VAT is applied at different rates to different goods and services, it also distorts people’s spending decisions and firms’ production decisions. In its current form, it is mildly progressive, *not* regressive as some commentators suggest.
- The temporary cut in the standard VAT rate from 17.5% to 15% is a better stimulus measure than its critics suggest. We estimate that the VAT cut will reduce prices on average by 1.2%. Past experience suggests this may lead people to buy 1.2% more goods and services. Those dismissing it as a failure ignore the likelihood that things would have been even worse without it.
- The government considered an increase in the rate of VAT to 18.5% in 2011–12. This would have acted as a stimulus to expenditure before that date, as well as raising about £5 billion per year thereafter. Whilst, on its own, such a change would be less progressive than further increases in National Insurance, it would be possible to compensate most poorer households.
- Broadening the VAT base by extending the standard rate to most goods and services would remove many of the distortions to consumption decisions caused by the current system and would raise significant revenue even after *more than compensating* poorer households on average. For instance, a net £10 billion could be raised, with the rest of the revenues used to help meet the child poverty targets and compensate poorer households, households with children, those with disabilities and pensioners.

10.1 Introduction

Value added tax (VAT) played a starring role in the Pre-Budget Report (PBR) of November 2008. The Chancellor announced a temporary 13-month cut in the standard rate from 17.5% to 15% to help stimulate economic activity. He also considered raising the standard rate to 18.5% from 2011, to help reduce the government’s underlying budget deficit, before opting in the end to raise a similar amount of revenue from higher rates of National Insurance (NI).¹

In the coming Budget, the Chancellor will have to decide whether to provide an additional fiscal stimulus in the short term and whether to do more to reduce the underlying budget deficit in the longer term. In both cases, he needs to decide whether VAT is a good tool to use.

¹ See page 6 of House of Commons Library Paper 701 (<http://www.parliament.uk/commons/lib/research/briefings/snbt-00701.pdf>).

In this chapter, we begin with an introduction to the structure and economics of VAT, including its impact on work incentives and its distributional consequences (Section 10.2). We then examine how effective the temporary cut in VAT is likely to be as a stimulus measure, and whether it would be sensible to extend or increase it if the government feels the need to do more to encourage current economic activity (Section 10.3). In contrast to many commentators, our reading of the evidence is that a temporary cut in VAT is a reasonably effective form of stimulus – more so than income tax cuts, for instance. We then look at the choice between raising revenue from an increase in the VAT rate and raising it from higher rates of NI (Section 10.4). We also discuss the fact that revenue could be raised from VAT not just by raising the standard rate, but also by broadening the unusually narrow range of consumer spending to which it is applied at the full rate in the UK (Section 10.5).² Section 10.6 concludes.

10.2 The structure and impact of VAT

VAT was introduced in the UK on 1 January 1973 as a condition of entry into the European Economic Community (as it then was). It is a proportional tax paid on sales of registered businesses, both to final consumers and other businesses, although most businesses are allowed to deduct any VAT paid on inputs before remitting the tax to HM Revenue and Customs (HMRC). Since it was introduced, it has become an increasingly important source of government revenue and in 2008–09 is forecast by the Treasury to raise £82.6 billion.³ This is equivalent to about £1,360 per person, or 16% of total tax revenues.

VAT is not payable at a single rate nor is it fully comprehensive.⁴ The standard rate of 17.5% applies to roughly 55% of total consumer spending,⁵ with a reduced rate of 5% applying for domestic fuel and power and a few other products, and a zero rate applying to new housing, children's clothing, most food and some other goods. Zero-rating means that the seller does not charge VAT on its sales but is still entitled to credit for the input VAT paid (and hence due a refund), so that the goods are VAT-free. A further set of goods and services, including rent on housing, finance and insurance, betting and gaming, and healthcare, are VAT-exempt. This means that the seller does not charge VAT on its sales but is not entitled to reclaim VAT paid on inputs to production.

VAT can broadly be thought of as a sales tax, or (equivalently) a tax on final consumer spending, where rates vary by the type of goods in question. The fact that businesses can

² This chapter is not a thorough evaluation of the VAT system, nor does it offer suggestions for comprehensive reforms. The interested reader can find a more comprehensive and detailed assessment by I. Crawford, M. Keen and S. Smith, *Value Added Tax and Excises*, prepared for the Report of a Commission on Reforming the Tax System for the 21st Century chaired by Sir James Mirrlees, Institute for Fiscal Studies, 2008 (<http://www.ifs.org.uk/mirrleesreview/reports/indirect.pdf>).

³ Annex B, HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_annexb_262.pdf).

⁴ For more details, see table 6 in S. Adam & J. Browne, *A Survey of the UK Tax System*, IFS Briefing Note 9, December 2006 (<http://www.ifs.org.uk/bns/bn09.pdf>).

⁵ See table C7 of HMRC, *Annual Report 2006–07 Tables and Statistics* (http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=true&_pageLabel=pageVAT_ShowContent&id=HMCE_PROD1_028433&propertyType=document). Note that the definitions used here are based on National Accounts principles and these do not correspond to VAT legislation, particularly for housing. However, calculations by IFS researchers based upon RPI expenditure weights give the same answer. In addition, the 55% figure is inclusive of VAT; excluding VAT, the appropriate proportion would be somewhat lower.

reclaim any VAT paid on inputs is an important and desirable property, as it ensures that intermediate business-to-business transactions are not taxed. This avoids costly distortions to production decisions. Note, however, that VAT-exempt goods break the chain of payments of VAT on sales and deductions on inputs, meaning that the production decisions of exempt firms are distorted by the tax. In addition, exemptions can cause significant administrative complexity, particularly when only a subset of a firm's transactions is exempt. VAT's desirable property of taxing final consumer spending only therefore breaks down with exemptions.

When people discuss the merits of using VAT as a way of raising revenue, the consequences for efficiency and fairness are naturally central to the discussion. Some enthusiasts argue that VAT is a good instrument because it does not harm work incentives. Some opponents argue that VAT is a bad instrument because the burden falls more heavily on poor households than rich ones.⁶ Neither proposition is in fact true, as we now discuss.

Myth 1: VAT does not distort work decisions

Contrary to first appearances, VAT has the same economic impact as a suitably structured income tax. To see this, consider two very simple tax systems: one with a uniform rate of income tax of 20% and the other with a uniform VAT of 25%. For simplicity's sake, assume that there is no borrowing or saving. An individual earning £10,000 would pay £2,000 in income tax under the income tax system, whilst his £10,000 expenditure would include £2,000 of VAT under the other system. In this instance, the uniform VAT and income tax are exactly equivalent – both allow the consumption of £8,000 of actual goods and services – and would therefore be expected to have the same behavioural impact.⁷

However, it is frequently suggested that a revenue-neutral shift from income tax to VAT (such as in the 1979 Budget) would reduce tax-induced disincentives to work.⁸ But in deciding how much to work (or whether to work at all), individuals care about the actual goods and services they can purchase from their wages, and therefore a uniform VAT and income tax would have the same effect. A shift from income taxation to VAT does not in itself reduce the distortions to labour supply caused by the tax-induced reduction in the real (net) wage. In practice, where neither income tax nor VAT is fully uniform, the shift to VAT may raise the amount of tax paid by one group (e.g. those with low incomes or in receipt of non-taxable benefits) and reduce the burden on others (e.g. those with higher incomes) and this may affect work incentives. But these effects are caused by the redistribution of the tax burden and have little to do with the choice of VAT or income tax per se. A similar incentive effect could be engendered by making the income tax system less redistributive, for instance. The upshot: indirect taxes such as VAT do distort labour supply decisions.

⁶ For a recent example of use of both misconceptions, see BBC Political Editor Nick Robinson's blog at http://www.bbc.co.uk/blogs/nickrobinson/2008/11/further_vat_rise_was_considered.html.

⁷ See the editorial section of the *Mirrlees Review: Reforming the Tax System for the 21st Century*, Oxford University Press, forthcoming, for details about how this result is modified when individuals can borrow and save and when savings income may include 'rents' (e.g. accruing from monopoly power) in addition to the normal return on riskless capital.

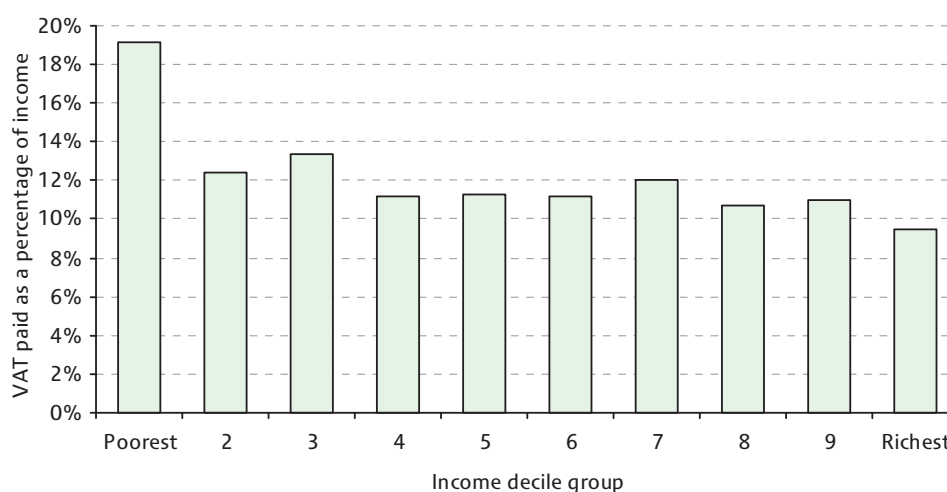
⁸ See 1979 Budget Speech, available at <http://www.margaretthatcher.org/archive/displaydocument.asp?docid=109497>.

It is important to realise, however, that whilst taxes on expenditure (such as the VAT) and those on labour income (for instance, NI) cause similar distortions to the trade-off between consumption and leisure at any given time, changes in these taxes have quite different effects. As Section 10.3 will explain in more detail, temporary changes in VAT change the relative price of consumption today compared with tomorrow and this will affect people's decisions about when to consume. However, if people are able to borrow and save, it should not affect when they choose to work. Similarly, changes in NI would affect when they work but not when they consume.

Myth 2: VAT is a regressive form of taxation

Another commonly-cited 'fact' is that VAT is a regressive form of taxation: poorer households pay proportionally more in VAT than do richer households. Figure 10.1 shows the average amount of VAT paid as a percentage of average household current net income by current income decile. It shows that the percentage of net income paid as VAT varies relatively little across most of the income distribution, with the biggest exception being that the bottom decile group does pay a higher fraction of its net income on VAT than do other income groups.

Figure 10.1. VAT paid as a percentage of net household income



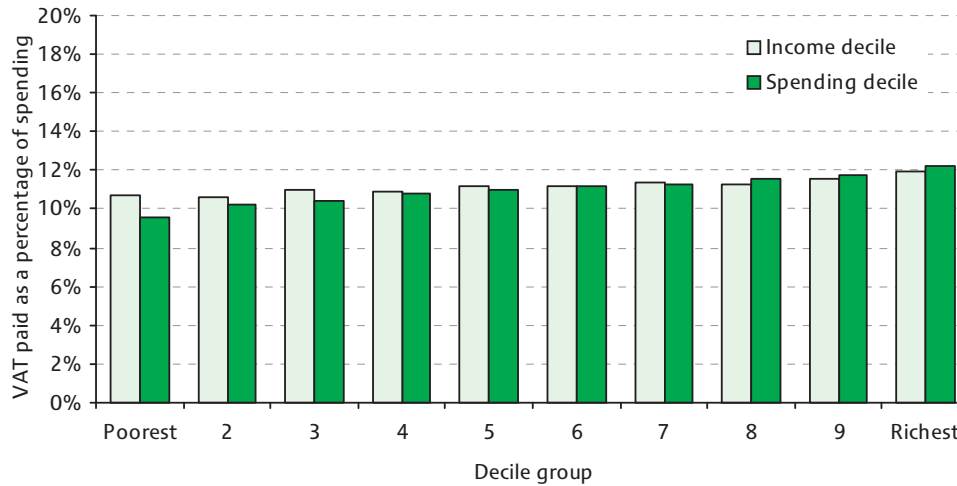
Notes: Income deciles based on equivalised household net income using McClements equivalence scales. Net income is defined as private income minus income tax, NI and council tax plus benefits and tax credits. The Family Expenditure Survey significantly under-records expenditure on VATable goods and hence all VAT amounts have been increased by a factor of 1.410 so that estimated VAT revenue matches government revenue estimates. Incomes data are from the Family Resources Survey 2006–07.

Sources: Family Expenditure Survey 2005–06; Family Resources Survey 2006–07; HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm); and authors' calculations.

However, looking at a snapshot of the patterns of spending, VAT paid and income in the population at any given moment is misleading, because incomes are volatile and spending can be smoothed through borrowing and saving. Consider a student or a retiree: their current income is likely to be quite low but their lifetime earnings could be relatively high. The student may borrow to fund spending, whilst the retiree may be running down savings. Similarly, many people in the lowest income decile will be temporarily not in paid work and able to maintain relatively high spending in the short period they are out of the labour market. Because their spending is higher than their current income, these

people will be paying a high fraction of their current income in VAT. Similarly, those with high current incomes tend to have high saving, and so appear to escape the tax, but they will face it when they come to spend the accumulated savings. Because of this ‘consumption smoothing’, expenditure is probably a better measure of living standards (and households’ perceptions of the level of spending they can sustain).

Figure 10.2. VAT paid as a percentage of household expenditure



Notes: Income deciles based on equivalised household net income using McClements equivalence scales. Net income is defined as private income minus income tax, NI and council tax plus benefits and tax credits and is derived from the Family Resources Survey 2006–07. Expenditure deciles based on equivalised household non-housing expenditure using McClements equivalence scales. The Family Expenditure Survey significantly under-records expenditure on all goods and hence expenditure has been increased by a factor of 1.37 so that it matches National Accounts data. Expenditure on VATable goods is particularly underestimated and hence all VAT amounts have been increased by a factor of 1.410 so that estimated VAT revenue matches government revenue estimates.

Sources: Family Expenditure Survey 2005–06; Family Resources Survey 2006–07; HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm); National Accounts; and authors’ calculations.

Figure 10.2 shows average amount of VAT paid as a percentage of average household expenditure – the light green by current income decile (as in Figure 10.1) and the dark green by current expenditure decile. It shows that, particularly when considering deciles based on household expenditure, poorer households pay a smaller proportion of their spending in VAT than do richer households. This makes sense: those goods that are zero- and reduced-rated, such as food and domestic fuel and power, are a higher proportion of the spending of poorer households than of rich households. Indeed, reduced- and zero-rating is often justified in terms of redistribution, although, as will be shown in Section 10.5, this is not particularly well targeted at helping poorer households.

In the following sections, whilst it would be preferable to use expenditure deciles (as we believe these more accurately capture living standards), data limitations force us to use income deciles. Nevertheless, we can still express gains and losses as a proportion of expenditure. For the reasons explained above, it is sensible to express gains and losses from VAT as a proportion of expenditure, and doing this the current VAT system is seen to be mildly progressive.

10.3 Cutting VAT as a stimulus measure

In the 2008 PBR, the government announced that it would cut the standard rate of VAT from 17.5% to 15% with effect from 1 December 2008 to 31 December 2009. The aim was to stimulate consumer demand and to reduce the depth and duration of the recession.

In some quarters, this has been dismissed as a gesture that weakens the public finances but will do little to boost the macroeconomy. Professor Olivier Blanchard, the International Monetary Fund's chief economist, has been quoted as saying: 'Temporarily cutting VAT, a measure that was adopted in Great Britain, does not seem to me to be a good idea – 2% less is not perceived by consumers as a real incentive to spend'.⁹ Leaders of the main UK opposition parties have also criticised the policy, with Nick Clegg saying: 'We would not waste £12.5bn on the VAT cut which the Prime Minister has delivered, which we don't think makes much difference',¹⁰ while David Cameron is already using the past tense to speak about the failure of the policy: 'The VAT cut has been an unbelievable and expensive failure. This government, that lectured us about prudence, has spent £12.5bn of our money, and wasted it.'¹¹

However, in a separate paper with Hamish Low, Crossley and Wakefield have argued that this policy change is likely to be a reasonably effective economic stimulant.¹² In this section, we summarise why we believe this to be the case and briefly discuss whether VAT might be a useful tool for further stimulus, should events over the coming year indicate that further stimulus is required. Chapter 3 discusses the impact of the stimulus package on the public finances.

Assessments of the effects of the VAT cut often start from the government's estimated costing of £12.4 billion and discuss the effects of pumping this amount of current resources into the economy via consumers' pockets. But just as important as this income effect is the fact that the temporary nature of the VAT cut lowers the price of purchases today relative to next year. This will lead to increased purchases today through a substitution effect, as people want to increase their purchases when prices are relatively low.

In order to assess how the change in VAT will affect total (real) consumer purchases, it is important to know how large an effect on prices it will have and how consumers are likely to respond.

⁹ Blanchard's quotes came from an interview with French newspaper *Le Monde* and were reported at <http://news.bbc.co.uk/1/hi/business/7797478.stm>.

¹⁰ Mr Clegg was speaking on BBC Radio 4's Today programme; see http://news.bbc.co.uk/1/hi/uk_politics/7809330.stm.

¹¹ Mr Cameron was speaking on BBC Radio 2's Jeremy Vine programme, on 2 January; see http://news.bbc.co.uk/1/hi/uk_politics/7808634.stm.

¹² T.F. Crossley, H. Low and M. Wakefield, 'The economics of a temporary VAT cut', IFS Working Paper WP09/02, January 2009 (<http://www.ifs.org.uk/wps/wp0902.pdf>).

The impact on prices

We cannot be sure to what extent retailers will pass on the VAT cut to their customers.¹³ Changing prices (for whatever reason) is potentially costly. If so, the VAT cut may get incorporated into prices over time as retailers can adjust for it when they would have next revised prices anyway. But technological innovations have substantially lowered the cost of making price changes and, in the current environment, retailers are strongly motivated to maintain sales. Both of these encourage rapid pass-through of the VAT cut to prices. Thus the assumption of full pass-through – that prices will fall by exactly the amount of the VAT cut – does not seem unreasonable as a first approximation. But, even if we do make this assumption, it is not true that the enacted change in VAT will lead to a 2.5% cut in prices. There are two reasons why not:

- Even for goods that face the full rate of VAT, full pass-through would not reduce prices by 2.5%. The VAT rate is expressed as a proportion of the price before tax. Thus, a good that retails for 117.5p before the reform has 17.5p of VAT included in its price. After the reform, assuming full pass-through, this good will retail for 115p and so the proportional fall in price is approximately 2.1%.
- As we noted earlier, many goods do not face the full rate of VAT, and this is the only rate that has been adjusted. Around 55% of consumer expenditure is on goods taxed at this rate. If the price of 55% of consumer spending falls by 2.1% and the price of the remainder is unchanged, the average fall in prices would be 1.2%.

In fact, this last calculation is still a simplification. Goods that are VAT-exempt are still subject to the full rate of VAT on intermediate stages of the production process, and so full pass-through would lead to some fall in the prices of these goods and services. However, our calculations suggest that the impact of this is small (probably further reducing overall prices by no more than 0.1%). To introduce some caution into our estimate of the effect of the tax change on average prices, we take the 1.2% price cut excluding this effect as our baseline assumption. It is worth noting that this is comparable to the change in the price of current consumption that would result from a (slightly larger than) 1 percentage point cut in interest rates. At least in normal times, such a cut would be considered substantial.¹⁴

How will consumers respond?

It is helpful to think of the responses to the policy by distinguishing between two different types of consumer: forward-looking consumers who do not face binding credit constraints (in other words, consumers who are able to increase spending today by borrowing or running down savings); and consumers who are either not forward looking or who are credit constrained, and so consume all of the resources currently available to them.

¹³ The ONS first release of December 2008 inflation figures suggests that inflation fell by 1 percentage point and that the VAT cut made the largest contribution to this change. See <http://www.statistics.gov.uk/pdfdir/cpinr0109.pdf>.

¹⁴ Further explanation of this comparison can be found in T.F. Crossley, H. Low and M. Wakefield, 'The economics of a temporary VAT cut', IFS Working Paper WP09/02, January 2009 (<http://www.ifs.org.uk/wps/wp0902.pdf>).

Forward-looking consumers

For forward-looking consumers who are not subject to binding credit constraints, the substitution effect of the change in relative prices between today and next year is the key determinant of how they will respond. The fact that these consumers are in effect enjoying a one-off boost to their real income for 13 months is less relevant, because it makes only a tiny difference to the resources they will expect to have available to spend over their entire lifetime. Furthermore, if consumers believe that the tax cut will be recovered through higher future taxes, the income effect on total lifetime resources may actually be zero.¹⁵

To assess how large the effect on current purchases of a 1.2% fall in consumer prices this year will be, we can draw on a large empirical literature measuring the extent of the substitutability of consumption across periods when relative prices change.¹⁶ A recent survey of this literature¹⁷ concluded that a good central estimate would be that a 1% cut in the price of consumption this year relative to next would lead to around a 0.75% increase in the level of purchases this year relative to next, with the range of plausible estimates lying between 0.5% and 1%. There are at least two reasons to think that the relevant estimate to judge the impact of this particular policy change will lie towards the top end of this range. Both have to do with the fact that the VAT cut will fall on a particular set of goods, not on the full range of non-durable items that are usually the subject for empirical studies.

- The first point to note is that goods to which zero and reduced VAT rates apply are (mostly) necessities. As Browning and Crossley point out, 'luxuries are easier to postpone'.¹⁸ The basic intuition is that necessities today are often not a good substitute for necessities tomorrow. For example, eating next month is not really a good substitute for eating this month; it is important to eat in both months. On the other hand, luxuries can probably be brought forward, or pushed back, in time, to take advantage of interest rates or changes in the VAT rate.
- The second issue is that, by cutting only the standard rate, the VAT cut is focused more than it otherwise would be on 'durable goods' (such as fridges and TVs) that are long-lasting and yield a flow of services over time. We expect durables purchases to be highly substitutable across time for two reasons. First, many durables are also luxuries. Second, the durability of durables – or more precisely, their storability – breaks the link between expenditure and consumption. To a certain extent, the timing of expenditures on durables can be adjusted without altering the timing of consumption of service flows (one can still use an old car or fridge, as long as it has not failed). This in turn means that expenditure on durable goods should be highly responsive to expected changes in price over time.

To summarise, the basket of goods affected by the temporary VAT reduction is one that we expect to include many items for which expenditures can relatively readily be

¹⁵ This hypothesis – that individuals might not perceive a wealth increase when government policy increases current resources – is known as 'Ricardian equivalence' after the 19th century British economist David Ricardo.

¹⁶ This parameter is called the elasticity of intertemporal substitution (EIS).

¹⁷ O. Attanasio and M. Wakefield, *The Effects on Consumption and Saving of Taxing Asset Returns*, prepared for the Report of a Commission on Reforming the Tax System for the 21st Century chaired by Sir James Mirrlees, Institute for Fiscal Studies, 2008 (<http://www.ifs.org.uk/mirrleesreview/reports/consumption.pdf>).

¹⁸ M. Browning and T.F. Crossley, 'Luxuries are easier to postpone: a proof', *Journal of Political Economy*, 108(5):1064–8, October 2000.

transferred across time periods. Thus, it seems reasonable to argue that the substitution effect of a 1.2% fall in current prices due to this VAT cut would be an increase in the current purchases of a similar magnitude. As such, for forward-looking consumers, a response of purchases of at least 1% seems a reasonable lower bound, and a 1.2% increase in purchases this year is our preferred estimate. Note that since the price of consumption is reduced by 1.2%, a 1.2% increase in the amount purchased implies that total (nominal) spending is unchanged: consumers will be buying 1.2% more goods and services 1.2% more cheaply.

Credit-constrained consumers

For those currently experiencing binding credit constraints (or those who are not forward looking), the temporary VAT cut has only an income effect: these individuals spend all their available resources so cannot change their spending to take advantage of price changes, but a price cut does mean that their resources buy more goods and services. Fortunately, this income effect is easy to assess. As these consumers would like to consume more in the current period, they will increase consumption to offset completely the fall in prices, continuing to spend as much as they can. Thus a 1.2% fall in current prices induces a 1.2% increase in purchases.

In normal times, we would expect only a small fraction of UK consumers to be so credit constrained. However, in the current economic environment, the number of credit-constrained consumers may be significantly greater. Conveniently, however, in this circumstance, the expected response of constrained and unconstrained consumers is of a similar magnitude, making the incidence of credit constraints largely immaterial for the overall effect on household spending.

Summary: why the temporary VAT cut should stimulate demand

We expect the temporary VAT cut to increase purchases in 2009 (or, strictly, in the 13 months December 2008 to December 2009) by around 1.2%. It is important to emphasise that this prediction is relative to the counterfactual of no policy change. An increase of 1.2% against a trend of falling purchases (recession) may translate into a reduced fall, rather than an actual rise, but we believe consumers' purchases should be around 1.2% higher than in the absence of the policy.

There are, though, two important evidence gaps in this analysis of this policy. The first is the extent to which the tax cut will feed through to prices. The second is the degree to which spending on durables will respond to a change in their price this year versus next year.

Bearing these points in mind, the likely impact of the VAT cut is as follows:

- With full, or near full, pass-through, average consumer prices would be 1.2% lower.
- For forward-looking and unconstrained consumers, we would expect the income effect of a temporary cut in VAT to be small and the substitution effect to be relatively large. We believe that for these households, a response to the 1.2% price fall of an increase in purchases of around 1.2% seems reasonable. This would leave the cash value of consumer spending broadly unchanged.
- The effect on (real) demand for domestically-produced goods and services is, of course, less than 1.2%, because some of the additional purchases will be imports.

However, this will be true of all policies that stimulate household spending, both monetary and fiscal.¹⁹

- For constrained households, the mechanism is quite different, but the outcome is the same. This suggests that the overall response does not depend significantly on the incidence of credit constraints in the economy and we should expect the amount of goods and services that consumers purchase to rise by 1.2%.
- Given that prices are falling by a similar amount to the increase in purchases, we should expect little change in nominal expenditures. This in turn means no increase in saving (in contrast to what the Treasury suggests²⁰).
- Since we are predicting a slightly larger increase in consumer demand than the Treasury assumes, we also project that the cost of the policy in 2008–09 is slightly smaller than the Treasury suggested. However, the effect on VAT revenues from the change in the volume of purchases is small relative to the effect from all spending on goods facing the standard rate of VAT facing a tax rate of 15% rather than 17.5%. Thus our analysis suggests that the revenue cost of the policy in 2008–09 will be around £12 billion, which is only slightly different from the Treasury's costing of £12.4 billion.²¹

In terms of the relative price of consumption today, the temporary VAT cut has about the same effect as a (slightly more than) 1 percentage point (or 100 basis point) cut in interest rates. If the effectiveness of monetary policy was expected to be dampened by the reluctance of banks to lend, then a temporary VAT cut was a reasonable way to try to make current purchases more attractive. Moreover, note that in terms of income effects, an interest rate cut hurts savers and helps borrowers. In contrast, to the extent that the VAT cut has income effects, those income effects are independent of the household's balance sheet. Thus the temporary VAT cut could be viewed as a 'pro-saver' stimulus (at least relative to interest rate cuts) and hence not inconsistent with calls from opposition parties for more saver-friendly policies.

Prospects for further stimulus

Suppose that the government comes to believe that additional fiscal stimulus is required beyond the end of 2009. Would further changes to VAT be an effective way to deliver that stimulus? While we believe that the temporary VAT cut enacted in December 2008 is likely to be a reasonably effective stimulus, it does not necessarily follow that additional manipulation of the VAT rate would also be an attractive option to deliver a further stimulus.²²

For unconstrained consumers, this kind of policy works by lowering the price of current purchases relative to purchases in the future. To stimulate extra purchases by these

¹⁹ It is true that different policies might induce incremental spending with different import intensities. However, we have little evidence to guide us on this point.

²⁰ See paragraph 2.25 of HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm).

²¹ For a fuller explanation, see T.F. Crossley, H. Low and M. Wakefield, 'The economics of a temporary VAT cut', IFS Working Paper WP09/02, January 2009 (<http://www.ifs.org.uk/wps/wp0902.pdf>).

²² While we consider possibilities for a longer period of stimulus through VAT, we do not consider the possibility of making the stimulus stronger by reducing the main VAT rate below 15%: there are practical difficulties with such an approach, given European legislation.

consumers in 2010, the government would need to lower the prices in 2010 relative to those in 2011 and beyond. This could be done in one of two ways:

- First, the government could announce an extension of the temporary VAT cut through 2010: this would imply a price increase of 1.2% at the end of 2010 (rather than 2009 under current plans). The potential problem with this option is that for unconstrained households, the effectiveness of the policy rests on the belief that VAT, and hence prices, will rise in the future. With each extension of the temporary reduction, this claim will seem less credible, and once households come to perceive the 15% rate to be permanent, the effect of the policy due to the change in relative prices is negated.²³
- Second, the government could allow VAT to return to 17.5% as scheduled, but pre-announce a further rise (perhaps to 18.5%) at the end of 2010. Forward-looking consumers would then perceive purchases in 2010 to be less expensive than purchases in 2011 and beyond. It is difficult to quantify the additional stimulus this would achieve, but it is likely to be smaller than an appropriately-scaled version of our assessment of the response to the current temporary cut. There are two reasons for this:
 - First, as current prices are not falling (but rather future prices rising), credit-constrained households cannot increase current purchases. They will have no substitution response. We cannot say with any confidence how many households are currently credit constrained, but these are unusual times and it may be a significant fraction.
 - Second, the substitution response of forward-looking (and unconstrained) households may be offset by an income effect. The income effect associated with this VAT increase is not only in the opposite direction to the income effect associated with the temporary VAT cut, but is also potentially much larger if the VAT increase is to be permanent.

It has been widely reported that prior to the November 2008 PBR, the government considered the possibility of a future rise in VAT such as that discussed in the previous bullet point, but ultimately rejected it²⁴ (announcing a future increase in NI contributions instead²⁵). Nonetheless, given current concerns about the public finances (see Chapter 6), and given that there seems to be some willingness to consider reforms to VAT, it is worthwhile considering possible approaches to raising revenue through VAT. Section 10.4 therefore considers the economic and distributional consequences of raising the main rate of VAT, while Section 10.5 considers the reasons why it may be more

²³ Of course, the purchases of those whose expenditure is equal to current income will still be boosted by the policy, but nonetheless an important part of the mechanism to increase consumer purchases has been shut off once households come to believe that the cut is permanent. A perception of permanence might though encourage purchases through an income effect when the tax is assumed to be permanently lower. However, given current concerns about the public finances, it is plausible to argue that such a permanent change in VAT could only be expected if the income effect were anticipated to be offset through tax revenues being recouped from elsewhere.

²⁴ See BBC News Online, 'Treasury eyed VAT rise to 18.5%', 25 November 2008 (<http://news.bbc.co.uk/1/hi/business/7749074.stm>) and 'VAT rise to 18.5% scrapped at last minute', *Financial Times*, 26 November 2008, as well as page 6 of House of Commons Library Paper 701 (<http://www.parliament.uk/commons/lib/research/briefings/snbt-00701.pdf>).

²⁵ This policy might itself have effects that stimulate economic activity. The pre-announced increase in NI is an anticipated wage fall, which makes current leisure expensive relative to future leisure. This should stimulate labour supply. However, given current concerns about job losses in the economy, it is not clear that this would be an effective stimulus at the present time.

economically attractive instead to broaden the range of consumer spending to which the full rate of VAT is applied.

10.4 Raising revenue by increasing the VAT rate

In the November 2008 PBR, Chancellor Alistair Darling pre-announced a revenue-raising set of changes to NI to take effect in 2011–12. This raises the primary threshold to the same level as the income tax personal allowance and at the same time increases all rates of NI by 0.5 percentage points. Overall, the government estimates these measures will raise £3.8 billion in 2011–12. As mentioned earlier, an alternative (or possibly additional) revenue-raising measure considered (but rejected) was an increase in the rate of VAT from 17.5% to 18.5%.

Chapter 6 argues that the government may need to find additional revenues in the future to bring the public finances back on track. Here we compare the distributional and economic impact of an increase in VAT (raising approximately £5 billion in 2011–12) with two different increases in NI raising the same amount according to the Treasury's 'Ready Reckoner':^{26,27} (1) an increase in the employers' and employees' rates of 0.5% each, both above and below the upper earnings limit (UEL); and (2) an increase in the additional rate of NI paid above the UEL from 1.5% to 6%. All three policies are in addition to the reforms of NI already announced in last November's PBR.

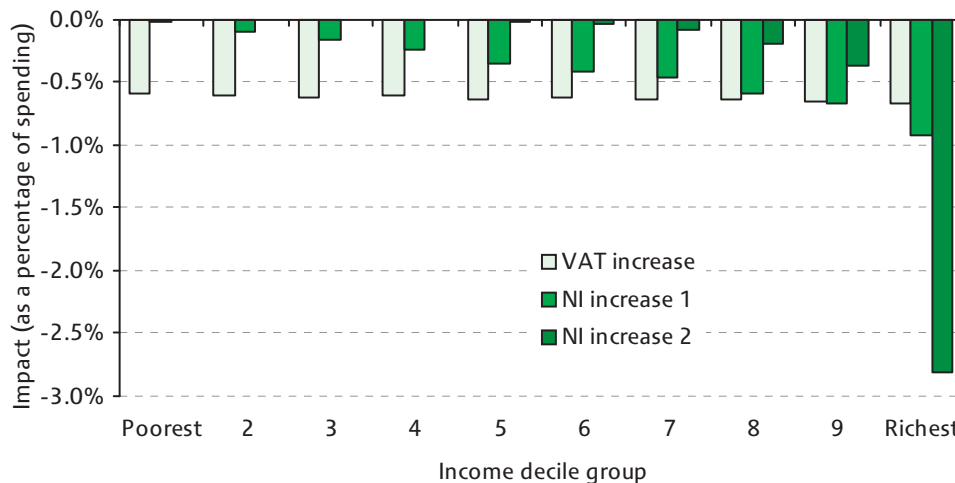
Whilst all three policies would be expected to be progressive to some extent, the increase in the rate of VAT would be least progressive as it applies to all expenditure on standard-rate goods, whilst the increase in the additional rate of National Insurance above the UEL would be expected to be most progressive as it only affects relatively high-earning individuals. Figure 10.3 confirms that this is the case.

As a proportion of non-housing expenditure, Figure 10.3 shows a very progressive pattern for both NI reforms. For the 0.5 percentage point across-the-board increase (NI increase 1), average losses increase as one moves up the income distribution from close to 0% for the poorest decile to 0.9% for the richest. When the increase in NI applies only to the additional rate paid above the UEL (NI increase 2), losses are negligible for the bottom six deciles and reach over 2.8% of expenditure for the top decile. For the increase in the standard rate of VAT, losses as a proportion of non-housing expenditure are slightly progressive, but not nearly as progressive as they are under either of the NI reforms. Those non-working or low-income households escaping the rise in NI are hit by the increase in VAT because, while their earnings are zero or very low, they are still spending on standard-rate goods.

²⁶ HM Treasury, *Tax Ready Reckoner and Tax Reliefs*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_taxreadyreckoner_287.pdf).

²⁷ It should be noted that our estimate of the revenue raised by the across-the-board 0.5% increase in NI is somewhat lower than the Treasury's and this is reflected in Figure 10.3, though it does not affect the qualitative pattern of distributional results. This difference in costing is due to the fact that in the same way we allocate a rise in employees' NI to workers, we also allocate the increase in employers' NI to workers by reducing wages to keep employment costs fixed. These lower wages reduce the amount of income tax payable, and increase entitlement to benefits and tax credits, offsetting some of the increases in NI. It appears that Treasury estimates of the revenue raised from changes to employers' NI make different assumptions about 'second-round' effects or ignore them. See Box 11.3 for more details.

Figure 10.3. Comparing losses from NI reforms and potential VAT increase (percentage of household expenditure)



Notes: Income deciles based on equivalised household net income using McClements equivalence scales. Net income is defined as private income minus income tax, National Insurance and council tax plus benefits and tax credits and is derived from the Family Resources Survey 2006–07. The Family Expenditure Survey significantly under-records expenditure on all goods and hence expenditure has been increased by a factor of 1.37 so that it matches National Accounts data. Expenditure on VATable goods is particularly underestimated and hence all VAT amounts have been increased by a factor of 1.410 so that estimated VAT revenue matches government revenue estimates. All direct tax and benefit changes are modelled using the Family Resources Survey, whilst all indirect tax changes are modelled using the Family Expenditure Survey.
Sources: Family Expenditure Survey 2005–06; Family Resources Survey 2006–07; National Accounts; HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm); and authors' calculations.

Relying on large increases in the rate of National Insurance payable above the UEL therefore imposes significant costs on the top decile that may be deemed politically unpalatable.²⁸ Hence, if the government is concerned about minimising the impact of tax increases on poorer households, but not hitting richer ones too hard, it would seem that further across-the-board increases in National Insurance look attractive.

However, it would be possible to increase VAT by more than 1 percentage point and use the additional revenue raised to compensate poorer households through a mixture of increased benefits and higher tax allowances whilst still raising £5 billion. Pre-announcing a future increase in VAT could also reinforce the boost to expenditure in 2009 that the temporary cut in VAT should cause; if we are right that the substitution effect is of key importance, a future rise in VAT will make expenditure in 2009 look even more attractive.²⁹ In addition, by reducing consumer prices in 2010 relative to 2011 and beyond, it should reduce the negative impact of the expiration of the temporary VAT cut in 2010 when the economy may still be relatively weak.

²⁸ Note that, while the PBR 2008 announcement that the rate of income tax on earnings above £150,000 would rise to 45% from April 2011 was largely uncontroversial, that reform will affect only the top 1% of earners. This NI reform applies to the highest 10% of earners.

²⁹ We pointed out at the end of Section 10.3 that it is difficult to quantify the additional stimulus this would achieve, but it is likely to be small.

10.5 Raising revenue by broadening the VAT base

As detailed in Section 10.2, a significant fraction of expenditure in the UK (about 45%) is subject to a reduced or zero rate of VAT or is on goods that are exempt. This means that instead of increasing the standard rate of VAT, one could raise revenue by reducing the number of goods subject to zero or reduced rates of VAT, or indeed abolish these lower rates altogether.³⁰ However, whilst exemptions cannot be easily justified due to their impact on production decisions,³¹ there are several plausible reasons why one may in principle wish to apply a reduced or zero rate of VAT (or indeed subsidy) for certain goods and services.³² For instance:

- Taxing earnings discourages people from undertaking paid work, but differential taxation of goods can offset this distortion. This argument suggests that those goods that are complements for working (such as childcare, household appliances and prepared food) should be taxed at a lower rate than those that are complements for leisure (such as gardening tools, golf clubs and food to prepare at home). This would make paid work more attractive relative to leisure. Whether it is worthwhile using differential taxation depends upon whether the efficiency gains from doing so outweigh the administrative and compliance costs. The current system of VAT in the UK taxes certain things that could be seen as a complement to labour (e.g. meals out and hot takeaway food) whilst zero-rating certain things that are potentially more complementary to leisure (e.g. home-prepared food) – the opposite of what is suggested by theory.
- It can be argued that the characteristics of certain goods mean they should be taxed at a higher or lower rate than other goods. Consumption of certain goods has wider costs or gains to society – for instance, alcohol, petrol and fatty foods impose costs on others in terms of crime, pollution and healthcare costs, and arguably they should therefore be taxed more heavily so that people purchasing them are made to take into account these costs for wider society. Other goods (e.g. healthy foods, preventative healthcare and informational material) may involve gains to others and therefore should be taxed less. Alternatively, it could be argued that some goods have particular merit in consumption – books, children’s clothing and healthy foods, for instance – that is not fully appreciated by consumers when they make their purchases.

Policymakers, however, sometimes emphasise a third argument, which has rather less justification: redistribution. Zero- and reduced-rating for goods such as food, children’s clothing, and domestic fuel and power are often justified on the grounds that poorer

³⁰ While the remainder of this section will focus on the distributional effects of broadening the VAT base, it is worth noting that a pre-announced broadening of the base would result in some current stimulus via a substitution effect because it would make some types of consumption more expensive in the future. Quantitative assessment of the resulting stimulus is difficult, but it is likely to be small. First, some of the points mentioned at the end of Section 10.3 regarding the stimulus effect of an increase in the VAT rate apply: we should expect no response from credit-constrained households, and the responses of forward-looking households may be dampened by an income effect (as the broadening would presumably be permanent). In addition, the broadening would raise the future price of goods that are largely necessities. As explained in Section 10.3, necessities have a small intertemporal substitution elasticity.

³¹ One potential argument is practical difficulties in defining the value added and the sale price (e.g. financial services) or in collecting the tax (e.g. from very small firms where costs of collection and compliance may exceed revenues).

³² For more details, see *Mirrlees Review: Reforming the Tax System for the 21st Century*, Oxford University Press, forthcoming.

households spend proportionally more on these goods than do richer households. However, for two related reasons, this is not a particularly convincing rationale:

- Whilst poorer households spend more on such goods as a proportion of their total income or expenditure, in absolute terms richer households spend considerably more on food, children's clothing, and domestic fuel and power. Therefore, in proportional terms, poorer households gain more from VAT concessions, but in cash terms, most of the benefit of these tax breaks goes to richer households. Hence, even universal flat-rate benefits (such as child benefit) are better able to redistribute to poorer households than VAT zero-rating.
- In developed economies, such as the UK, one can go further and use targeted transfers to give poorer households more in cash terms. Means-tested benefits and tax credits are much better targeted at poorer households than VAT concessions, allowing much greater redistribution per pound spent. However, means-testing does involve efficiency costs of its own, which must be weighed against the gains of better targeting and less distortion to consumption.

Crawford, Keen and Smith³³ examine the distributional implications of applying the standard rate of VAT to all reduced- and zero-rated goods and services³⁴ and find that the impact is highly regressive, with the losses (as a proportion of income) almost five times higher for the lowest income decile group than for the highest. On the other hand, losses were highest on a cash basis for the richest households. However, when combined with a 15% increase in income-related benefits, the lowest three deciles *gain* on average, with losses highest as a proportion of income in deciles 7 to 9. Furthermore, the overall reform raises a net £11 billion, which could be used to increase public spending, cut other taxes or reduce borrowing.

Using Crawford, Keen and Smith's paper as inspiration, we consider two potential reforms that broaden the VAT base and compensate lower-income losers, whilst still raising revenue. As a first step, we repeat their exercise and impose the standard rate of VAT on all reduced- and zero-rated goods.³⁵ This raises approximately £24.4 billion in 2009–10 prices. Then we compare two different compensation packages costing about £14.4 billion each, so that the net revenue raised is equal to £10 billion (roughly equivalent to 2% on the standard rate of VAT):

- Option 1 is a scaled-up version of Crawford, Keen and Smith (2008): an increase in rates of income support, housing benefit and tax credits of 16.5%.
- Option 2 compensates using a smaller increase in these benefits but with more general compensation for households with disabled, pensioner and child members. In particular, it focuses on using the additional revenue raised to make progress towards the government's child poverty target.

It should be noted that these compensation packages are illustrative only – the government might have different distributional priorities or different revenue needs.

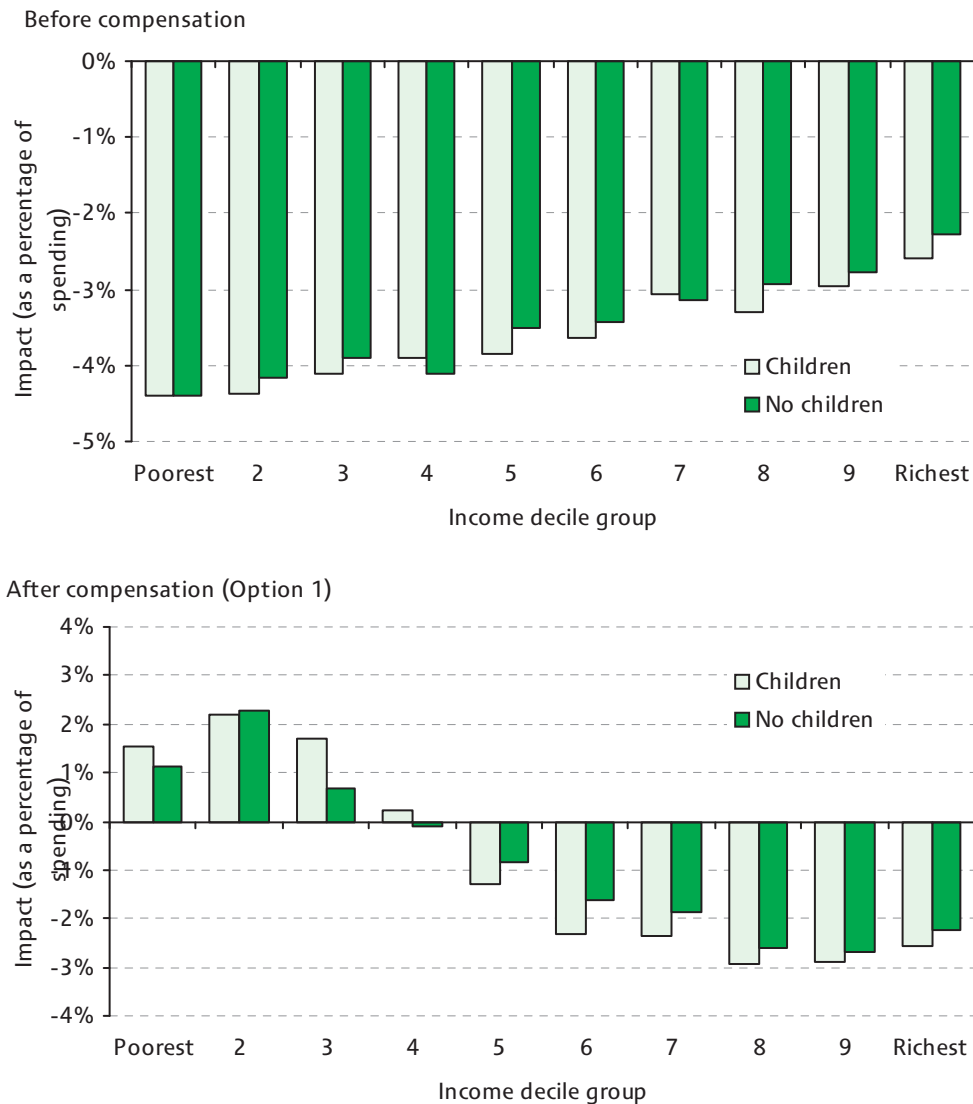
³³ I. Crawford, M. Keen and S. Smith, *Value Added Tax and Excises*, prepared for the Report of a Commission on Reforming the Tax System for the 21st Century chaired by Sir James Mirrlees, Institute for Fiscal Studies, 2008 (<http://www.ifs.org.uk/mirrleesreview/reports/indirect.pdf>).

³⁴ With the exception of new houses, the portion of international passenger transport that takes place in the UK, and ships and aircraft above a certain size. In addition, VAT is not imposed on goods currently classified as exempt (e.g. insurance and financial services). Insurance premium tax remains at 5%.

³⁵ Excluding the same categories that Crawford, Keen and Smith (2008) exclude.

Figure 10.4 shows the impact of the imposition of a uniform VAT rate of 17.5% by income decile, broken down by whether or not the household has children. The top panel shows the impact prior to compensation and the bottom panel shows the impact after low-income households are compensated using Option 1. Figure 10.5 repeats this analysis by household type, with the lighter columns indicating the impact of the VAT reform only and the darker columns including the compensation package.³⁶

Figure 10.4. Losses from applying a uniform rate of VAT of 17.5% (percentage of household expenditure): before compensation and after compensation (Option 1)

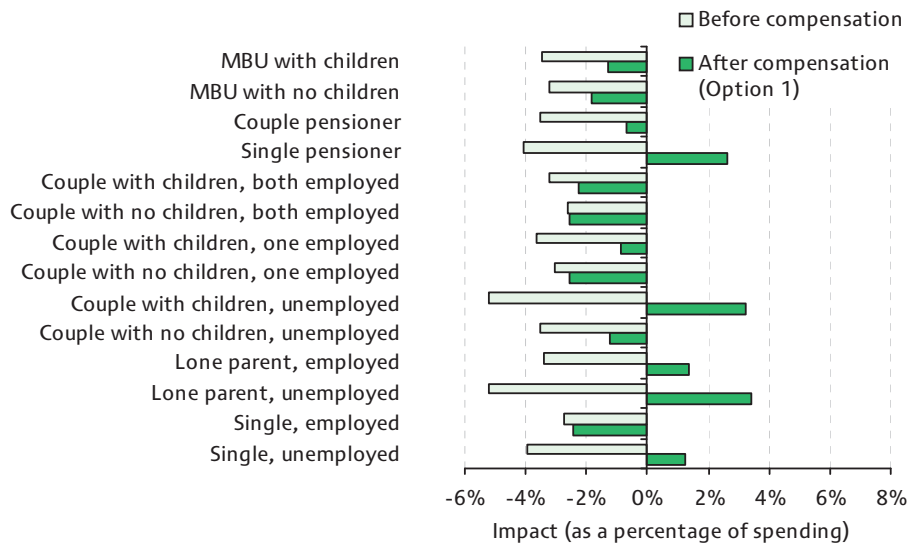


Notes: As Figure 10.3.

Sources: As Figure 10.3.

³⁶ Because our measure of spending is a 'snapshot', many households will not have purchased a particular item in the reference period that they do use and purchase at some point. For this reason, whilst we are able to present average gains and losses for large population groups (e.g. deciles or family types), we are unable to show the numbers of winners and losers because many people with recorded zero purchases in the reference week would purchase the relevant items over a longer period (e.g. a year), and would actually lose. Conversely, some people will have spent more than they usually do on certain goods during the reference period and their loss will be overestimated.

Figure 10.5. Losses from applying a uniform rate of VAT of 17.5% (percentage of household expenditure): before compensation and after compensation (Option 1)



Notes: MBU = household containing what the benefit system considers to be more than one family. Also see Notes to Figure 10.3.
Sources: As Figure 10.3.

Figure 10.4 shows that the imposition of a uniform VAT is, in itself, a regressive tax increase, with proportional losses greatest for poorer households; losses are about 4.4% of expenditure for the bottom decile versus about 2.4% for the top. Losses are particularly large for non-working households with children (see Figure 10.5), who spend a high proportion of their total expenditure on food, domestic heating and power, and children’s clothing.

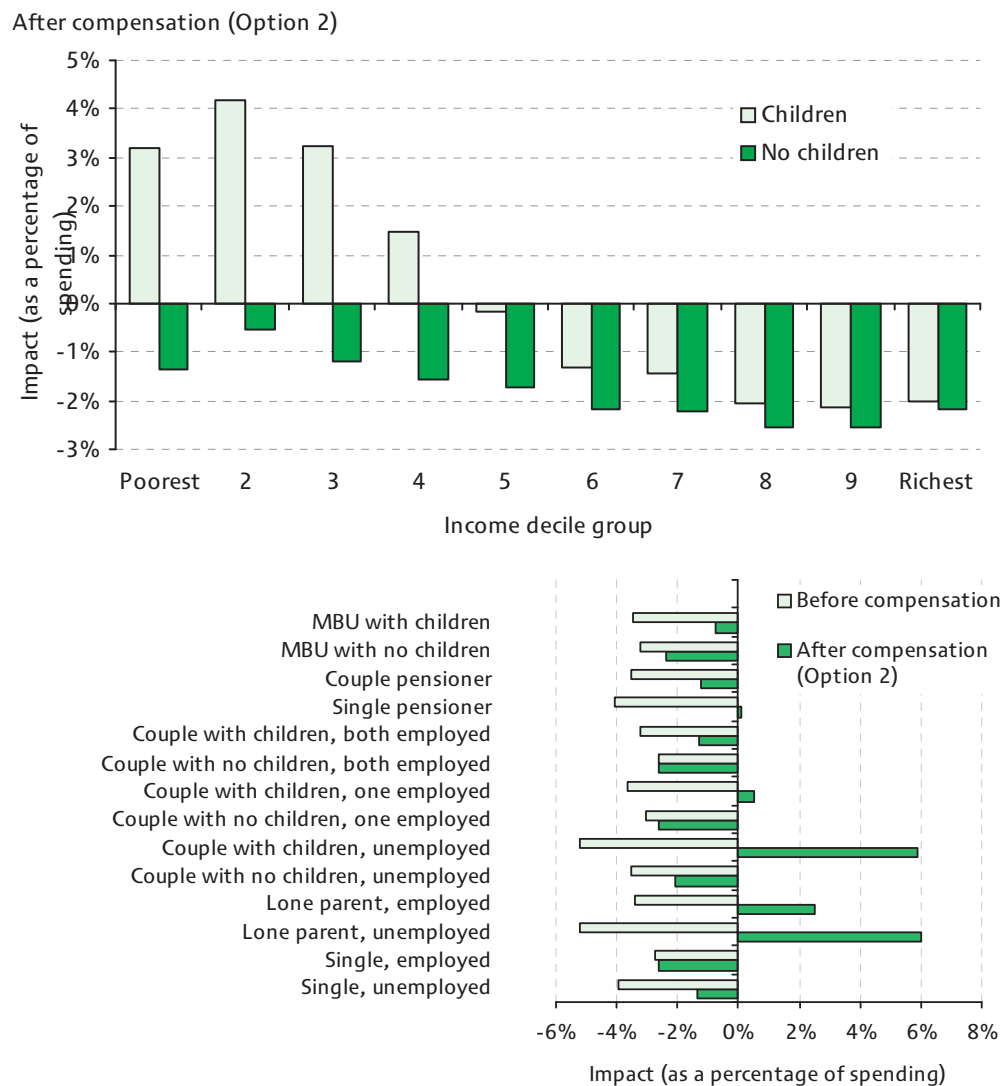
Under compensation Option 1, households in the lowest three deciles gain, on average, from the overall package, with proportional gains highest for those households without children in decile 2 – at close to 2.3% of expenditure (£6.71 per week). Households further up the income distribution lose on average, with households with children in decile 8 losing the most proportionally (2.9%) and those in decile 10 the most in cash terms (£41.34 per week). Overall, the distributional patterns look very similar for those households with children and for those without. Lone parents, unemployed couples with children, single unemployed individuals and single pensioners gain on average from the complete package, whilst other household types lose out (particularly employed households without children).

Compensation package Option 2 has a different focus and combines two main components. The first part is designed so that the government would make significant progress towards its 2010–11 target of halving child poverty. Work by IFS researchers has suggested that the government would need to increase spending on the child tax credit by £2.8 billion per year in order to have a 50:50 chance of meeting the target³⁷ (at the time of writing, this estimate is being updated). We illustrate an increase of this size,

³⁷ This assessment was made after Budget 2008, and reported in evidence to the Treasury Select Committee. See House of Commons Treasury Committee, *The 2008 Budget*, HC 430, London (<http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/430/430.pdf>), and look at Q67 of the oral evidence.

taking the form of an increase in the per-child element of £7.50 per week and the introduction of an additional £12.50 for the third and subsequent children. Note that while the increases in VAT would not impact *measured* child poverty (as measured child poverty is income- rather than expenditure-based), it seems sensible to take account of this tax rise when making policy to improve the living standards of poor children. For this reason, we additionally increase child benefit by £6.70 per week for the first child and by £4.25 for subsequent children.

Figure 10.6. Losses from applying a uniform rate of VAT of 17.5% (percentage of household expenditure): after compensation (Option 2)



Notes: MBU = household containing what the benefit system considers to be more than one family. Also see Notes to Figure 10.3.

Sources: As Figure 10.3.

The second component of the compensation package is an increase of 7.5% in housing benefit, income support and working tax credit rates and an increase of 5.0% in the state pension and employment and support allowance. Together, these are designed to minimise the negative impact of the tax increase on low-income households, pensioners and those with disabilities.

When compensation package Option 2 is introduced, average losses from applying the uniform VAT rate fall significantly for poorer and middle-income households, particularly those with children and pensioners (see Figure 10.6). Indeed, amongst families with children, those in deciles 1 to 4 gain on average from the overall package. Those households with children in the second decile are the biggest cash (£18.97 per week) and proportional (4.2%) gainers, whilst those in the top decile lose the most in cash terms (£32.18 per week) but not proportionally. In contrast, households without children lose, on average, right across the income distribution. Lone parents and non-working families without children are the largest gainers on average (6% of expenditure or £21 per week for the couples). On average, single pensioner households gain 20p per week whilst pensioner couples lose £6.25.

The important point to draw from these two illustrative reform options is not the specifics of who gains and who loses and by what amount. It is instead that because zero and reduced rates of VAT are an inefficient way of targeting help at poorer households, the abolition of these together with the introduction of a targeted package of benefits and tax credits can raise significant amounts of revenue whilst *benefiting* these households on average. Furthermore, doing this would reduce the distortions to consumption that the selective imposition of VAT currently entails.³⁸

10.6 Conclusions

VAT is a significant revenue raiser and recent changes to the VAT – while motivated by the need for macroeconomic stimulus – may indicate that reform of the system or its use as a revenue raiser is back on the agenda. The government could raise revenue by increasing rates or by reducing the scope of the zero and reduced rates, while also compensating the losses of particular groups. Of the two options, broadening the base of the VAT has greater economic rationale than raising the rate.

With respect to the use of VAT as a macroeconomic stimulant, we believe the recently-announced temporary cut in VAT to be a better policy than many commentators suggest. It is critical to bear in mind that the proper comparison is not between consumer spending now and last year but between spending now and what it would have been now in the absence of the tax cut.

³⁸ With exemptions and zero-rating still in place for new housing, they would not be totally eradicated, however.

11. Income tax and National Insurance

James Browne (IFS)

Summary

- Budget 2007 proposed a very simple set of combined income tax and National Insurance rates. Since then, however, changes have been announced, to come into effect by 2011–12, that would create a system where key elements of the two systems are misaligned and which involves a complicated structure for marginal tax rates on incomes above £100,000 a year.
- The government has proposed two 60% income tax bands, between £100,000 and £106,475 and between £140,000 and £146,475, to come into effect from 2010–11. These are likely to distort quite considerably the behaviour of people who expect to fall into these bands. If individuals at the top of the income distribution are more responsive to changes in their marginal tax rate than individuals lower down the distribution, there may be a case for having a lower marginal tax rate at the very top of the income distribution than slightly lower down. But it seems very unlikely that the optimal tax schedule has these two large spikes in it.
- It would appear that the Treasury has assumed that there will be a considerable behavioural response to the new 45% tax rate on incomes over £150,000. However, it is very difficult to estimate how much revenue reforms such as these would raise, as it requires accurate information about income growth at the top of the income distribution, the shape of the income distribution and the responsiveness of the very rich to changes in their marginal tax rates. All of these are subject to a high degree of uncertainty, and the Treasury has so far declined to publish the assumptions it made when estimating how much these measures will raise.
- We present two alternative reforms that aim to realign the income tax and National Insurance thresholds in revenue-neutral and broadly distributionally-neutral ways.

11.1 Introduction

In his final Budget in March 2007, Gordon Brown bequeathed his successor a commendably simple structure of income tax and National Insurance (NI) rates on earned income. But in responding to the furore over the abolition of the 10p income tax rate, and in the way he has attempted to raise revenue in the November 2008 Pre-Budget Report (PBR), Alistair Darling has undone this good work. His announcements will create a schedule of income tax and NI rates that is even more complicated than that which preceded the 2007 Budget.

By way of preamble, it is worth recalling why the shape of the tax schedule matters. The effective marginal tax rate is a measure of the financial incentive for individuals to work slightly more paid hours or to seek a slightly higher-paying job. What we are ultimately interested in from an economic perspective is the impact of a £1 increase in what an employer pays to employ someone on the amount of goods and services that the employee can buy. This depends on:

- the amount that the employer has to pay in NI contributions;
- the amount that the employee pays in income tax and NI contributions; and
- the proportion of what the employee spends that is taken in consumption taxes (e.g. VAT and excise duties). The impact of VAT on incentives to work is discussed in Chapter 10.

It is important to remember that the long-term economic impact of employers' and employees' NI contributions is the same – both drive a wedge between what the employer pays and what the employee receives, and therefore, at least in the medium term, both will have the same impact on the after-tax earnings of employees.

For simplicity, we focus below on income tax and employees' NI contributions when discussing the 2007 Budget and the 13 May 2008 response to the abolition of the 10p income tax rate, as they involved no significant changes to employers' NI or consumption taxes. We extend the scope of the discussion to employers' NI contributions and consumption taxes when considering the changes announced in the November 2008 PBR.

Section 11.2 describes the income tax and NI changes since Budget 2007 in more detail. Section 11.3 examines the income tax changes affecting the very rich more closely and discusses the behavioural changes we might expect to see resulting from them. Section 11.4 discusses some alternative reform packages and Section 11.5 concludes.

11.2 Reforms announced since Budget 2007

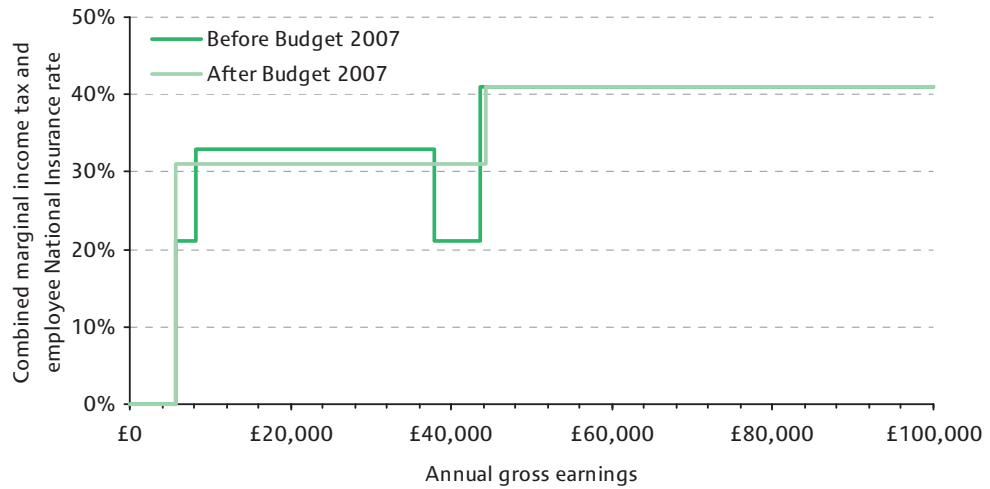
The 2007 Budget proposed a very simple tax schedule for earned income from April 2009, with three combined marginal rates of income tax and employees' NI contributions – zero, 31% (20% income tax plus 11% employees' NI) and 41% (40% income tax plus 1% employees' NI). This reduced the number of income tax bands applying to earned income from three to two and the number of combined income tax and employees' NI rates from four to two, as shown by Figure 11.1.¹ The rates of employers' NI were unchanged and the thresholds remained aligned with those of employees' NI.

One effect of these changes was that around 5.3 million families who had previously benefited from the 10p starting rate of income tax were paying more tax as a result of its abolition and were not fully compensated by other tax and benefit changes announced at the same time.² The government announced in April 2008 that it was looking at ways of compensating these families and in May 2008 announced a 'one-off' increase of £600 in the income tax personal allowance – the point above which income tax is paid – for the 2008–09 tax year. This moved the threshold at which an individual starts paying income tax out of line with the threshold at which they start paying NI contributions (NICs), thereby creating an additional 11% band in the combined income tax and employees' NICs schedule. The 2008 PBR announced that this one-off change would be made permanent, and that the personal allowance would be increased by a further £140 in 2009–10 and 2010–11 (but not in future years). Therefore, the actual combined income tax and employees' NI schedule in 2009–10 will be as shown in Figure 11.2.

¹ Note that there are still three income tax rates for savings income: the 10% rate still exists for savings income falling in the starting-rate band. This remains an unwelcome over-complication of the income tax system.

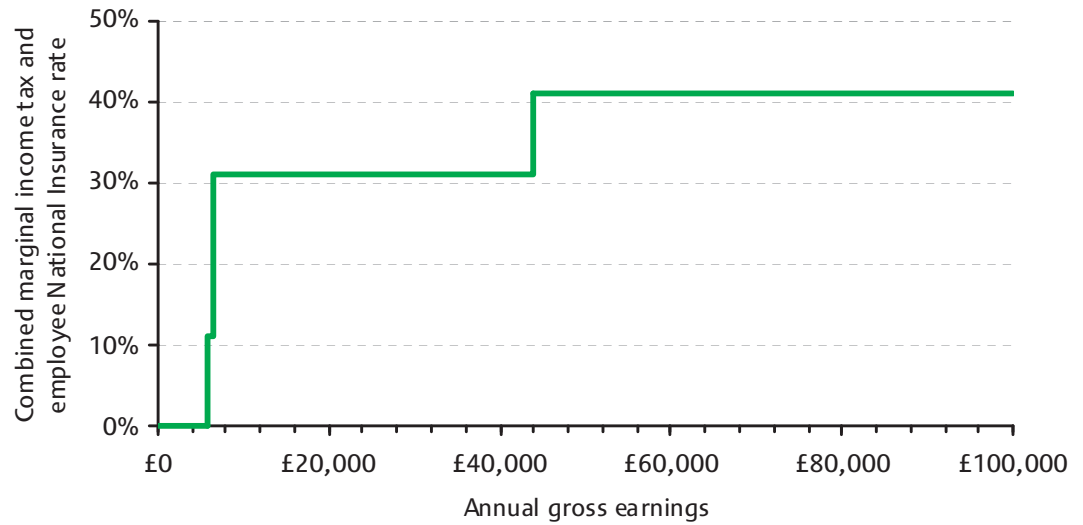
² For more on this, see S. Adam, M. Brewer and R. Chote, *The 10% Tax Rate: Where Next?*, IFS Briefing Note 77, 2008 (<http://www.ifs.org.uk/bns/bn77.pdf>).

Figure 11.1. Effects of changes announced in Budget 2007 on the combined income tax and employees' NI schedule in 2009–10



Notes: Employers' NI and indirect taxes not shown as rates of both were unchanged in Budget 2007 and employers' NI thresholds remain aligned with those for employees' NI. Assumes individual is contracted in to the State Second Pension, has only one job and has constant earnings throughout the year.
Source: Author's calculations.

Figure 11.2. 2009–10 combined income tax and employees' NI schedule



Notes: As Figure 11.1.
Source: Author's calculations.

The November 2008 PBR also proposed various income tax and NI changes to come into force in 2010–11 and 2011–12:

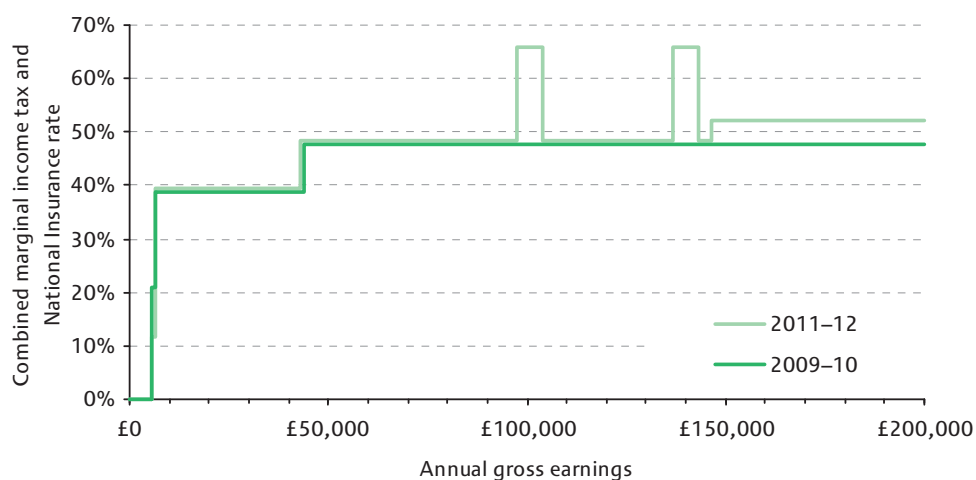
- In 2011–12, the threshold for paying employees' (but not employers') NI contributions will be increased to the level of the income tax personal allowance.
- All NI rates (employees', employers' and self-employed) will be increased by half a percentage point in 2011–12.

The IFS Green Budget 2009

- The income tax basic-rate limit (the amount of income that is taxed at the basic rate) will be frozen in nominal terms in 2011–12, effectively reducing it in real terms by an expected 2½%.³
- From 2010–11, the income tax personal allowance will be withdrawn in two stages from those with incomes greater than £100,000. This will effectively create two bands of income where the marginal rate of income tax is 60%. This is because someone earning £100,000 will pay 40p of each additional pound earned in income tax and also lose 50p of their personal allowance, incurring an additional 20p tax liability (40% of 50p), meaning that they lose 60p in total through additional income tax payments.
- In 2011–12, a new 45% rate of income tax will be introduced on incomes above £150,000. The combined income tax and employees' NI rate will be 46.5% on earnings over this level, and including employers' NICs as well would take this to 52.8% as a percentage of employer cost.⁴

Figure 11.3 illustrates the impact of the changes on the combined schedules for income tax, employees' NICs and employers' NICs, expressed in 2009–10 prices. We show the effective marginal rates as a proportion of employer cost – that is to say, gross earnings plus employers' NI contributions. This is the proportion of an extra pound that an employer spends employing someone that is taken in the three taxes, and which therefore reduces the employee's take-home pay.

Figure 11.3. Income tax, employees' NI and employers' NI reforms between 2009–10 and 2011–12



Notes: Percentages expressed as a proportion of gross employer cost (i.e. gross earnings plus employers' NI). Includes income tax and employers' and employees' NI. Assumes individual is contracted in to the State Second Pension, has only one job and has constant earnings throughout the year. Source: Author's calculations.

We can see from Figure 11.3 that:

³ This is intended to reverse the real rise in the basic-rate limit that will occur in 2010–11 when RPI inflation is forecast to be negative but the Treasury has said that the basic-rate limit will not fall.

⁴ This is calculated by adding together the income tax rate, employees' NI rate and employers' NI rate and dividing by 1 plus the employers' NI rate, in this case $(0.45 + 0.015 + 0.133)/1.133$. This is because increasing gross earnings by £1 leads to additional income tax liability of 45p, additional employees' NICs of 1.5p and additional employers' NICs of 13.3p and the total cost to the employer has increased by £1.133. This therefore gives the proportion of an extra pound that an employer spends employing someone that is taken in income tax and employees' and employers' NICs.

- The reforms will not fully align the thresholds at which payment of income tax and NI commences – the threshold for employees' NI will be realigned with the level of the income tax personal allowance, but in the process de-aligned from the threshold for employers' NI.
- The reforms introduce a strange marginal rate structure at the top of the income distribution, for which it is hard to see any obvious economic rationale. It will introduce a combined income tax and employees' and employers' NI rate of 66% of employer cost for those caught in the two narrow bands where the personal allowance is withdrawn.

The next section discusses the income tax changes affecting those with incomes greater than £100,000 in more detail.

11.3 Income tax changes affecting the very rich

Withdrawal of the personal allowance above £100,000

The government announced that it intends to withdraw the income tax personal allowance from individuals with incomes greater than £100,000 in two stages from 2010–11. This would effectively create two income tax bands, between £100,000 and £106,475 and between £140,000 and £146,475 in 2010–11, where individuals will face an income tax rate of 60% and a combined income tax and employees' and employers' NI rate of 66% (as a share of gross employer cost). It seems likely that anyone expecting their total income to fall within these ranges will seek to reduce their taxable income slightly – for example, by making additional private pension contributions⁵ – to the point where the phase-out begins. In this case, the main distortion created by this tax increase for these individuals would seem to be the additional effort expended by these individuals when managing their affairs in a tax-efficient way. The change may also distort the decisions of slightly lower-income people deciding whether it is worthwhile seeking increases in pay that would take them into, or above, these bands.

Individuals with incomes between £106,475 and £140,000 would be paying £1,295 more in tax each year than before, but would find their marginal tax rate unaffected by this reform. As a result, these individuals might be less likely to respond in the same way as those facing a marginal income tax rate of 60% since they would have to make some pension contributions that received tax relief at only 40% before receiving 60% tax relief. However, they may decide to work less hard and reduce their incomes below £100,000, emigrate from the UK, not migrate to the UK or retire earlier, if they considered the income tax burden to be too high. On the other hand, they might work harder in order to maintain their level of post-tax income. Given the sums involved, though, it seems unlikely that either effect will be significant, at least in the short term.

The Treasury estimates that 750,000 individuals⁶ will be affected by this reform in 2011–12 and that it will raise £1.6 billion in a full year once behavioural responses are taken into account. This is a small amount relative to the £156.7 billion expected to be raised from income tax overall in 2008–09, of which 23.1% or £36.2 billion is expected to be

⁵ Such individuals would receive income tax relief at 60% when making an individual contribution to their pension (and greater relief if it were made via their employer, e.g. through salary sacrifice), but would be likely to only face a tax rate of 40% on their pension income in retirement.

⁶ Source: Private correspondence.

raised from the top 1% of taxpayers.⁷ Using data from the 2005–06 Survey of Personal Incomes uprated so that we match the Treasury’s estimate of the number of individuals with incomes over £100,000,⁸ we broadly agree with the Treasury’s estimate of the amount of revenue raised, but only under the assumption of no behavioural response. It would therefore appear that the Treasury has assumed that there will be relatively little behavioural response to this reform. Even if we assume that everyone whose income falls in the range where income is subject to a 60% marginal income tax rate reduces their taxable income to the bottom of that range in response to this reform, this behavioural response would reduce the amount of revenue raised by less than £100 million. It would appear therefore that this change would have a large distortionary impact on a relatively small number of people.

It is possible that the optimal tax schedule does involve a lower marginal rate at the very top of the income distribution than slightly lower down, as this package does. This might be the case if those at the very top of the income distribution were more responsive to changes in their effective marginal tax rate than those slightly lower down. However, it seems very unlikely that the optimal tax schedule would involve two big spikes as there are here.

45% income tax rate above £150,000

As discussed previously, the 45% income tax rate on incomes over £150,000 will take the combined income tax and NI rate on earnings to 46.5% excluding employer NI or 52.8% including employer NI. Including indirect taxes as well would take the full tax wedge to 59.6% (we include the average consumption tax rate of 17% here).⁹ The Treasury estimates that this measure will affect around 350,000 people and raise £1.6 billion in a full year once behavioural response is taken into account. If we uprate incomes in the way described in Box 11.1, assuming uniform income growth at the top of the income distribution, we estimate that, if there were no behavioural response, this reform would raise £3.4 billion. This suggests that one or more of the following is true:

- The Treasury is assuming a fairly large behavioural response to this reform.
- The Treasury is assuming lower income growth among those with incomes greater than £150,000 than among those slightly lower down.
- The Treasury is being deliberately conservative in light of the uncertainties surrounding estimates of the revenue raised by this reform.

Going through each of these points in turn, we would expect the behavioural response to this change to be substantial. The very highest income earners will have the option of paying more money into pension funds to attract tax relief at 45% or might emigrate from the UK, not migrate to the UK, work less hard or even retire earlier in response to this change. Box 11.2 discusses the difficulties in estimating the size of this behavioural response.

⁷ Sources: HM Treasury, *Pre Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm) and table 2.4 of HMRC Statistics (http://www.hmrc.gov.uk/stats/income_tax/table2-4.pdf).

⁸ See Box 11.1 for more details.

⁹ The 59.6% is equal to $(52.8\% + 17\%) / 1.17$.

Box 11.1. Using the Survey of Personal Incomes to estimate the effects of these income tax reforms

The Survey of Personal Incomes (SPI) is an annual sample of individuals who HMRC believes could be liable to income tax. Stratified samples are drawn from three HMRC databases (people subject to PAYE, self-assessment taxpayers and neither of these). Variables that were used to stratify the sample include sex, pay, tax liability, main source of income and occupational pensions in previous years. Individuals with high incomes or rare allowances tend to be oversampled. This is therefore a much better source of information on those with very high incomes than traditional household surveys such as the Family Resources Survey that we generally use to analyse tax and benefit reforms.

Certain steps are taken to ensure anonymity. All sources of income, allowances and reliefs are rounded to three significant figures, with tax amounts imputed based on these rounded figures. Unusual combinations of allowances are examined to ensure no one can be identified. HMRC ensures that no group has a sampling weight of less than 1 in 60 or represents a population of fewer than 10,000. Finally, incomes of more than £600,000 are combined to create composite records in order to ensure anonymity. This is done by combining cases with similar characteristics (e.g. same stratum and sex) and taking averages for each variable on the file.

To create a 2011–12 population using 2005–06 data, we simply increase everyone's incomes by a certain proportion. We choose the uprating factor to ensure we match the Treasury's estimate of the number of people with incomes greater than £100,000 in 2011–12, namely 750,000. In other words, we ensure that the 750,000th richest person in the income distribution has an income of £100,000 and that relative income differentials are unchanged. This also ensures that around 350,000 people have incomes greater than £150,000, in line with the Treasury's estimate. This requires that we increase nominal earnings by 27%, which means we are effectively assuming average annual income growth of 4.1% between 2005–06 and 2011–12 or average annual real income growth of 1.3% using actual inflation between 2005 and 2008 and Treasury forecasts of inflation to 2011.

Box 11.2. Estimating the behavioural response to the new 45% income tax rate

It is highly likely that changes in the income tax and NI rates that apply to the richest individuals will lead these individuals to change their behaviour in a manner that reduces the revenue raised. However, accurately estimating what these behavioural changes mean in practice for tax revenues is extremely hard.

Estimates of how much revenue is lost by behavioural changes to changes in the top rate of tax rely on accurate estimates of the extent to which the very rich will change their behaviour and on accurate estimates of the underlying distribution of income of the very rich. These are discussed in turn below.

A recent study by IFS researchers together with Professor Emmanuel Saez of the University of California, Berkeley (henceforth BSS)^a estimated a parameter known as the *taxable income elasticity* amongst the richest 1% of adults in the UK. This elasticity tells us to what extent taxable income falls when the richest 1% are faced with a rise in the marginal tax rate. Using information on how the share of total income held by the top 1% changed during the 1980s, when marginal tax rates for the very rich were cut considerably, BSS estimate that the taxable income elasticity is 0.46. However, BSS stress the considerable uncertainty around this estimate.

Box 11.1 described how the Survey of Personal Incomes can be used to estimate the underlying distribution of income of the very rich, which then allows one to assess the impact of income tax changes on the very rich. But despite the survey oversampling very rich individuals, the number of observations with very high incomes is still very small, and this means that any estimates of the revenue lost by behavioural change from a tax change applying to the richest individuals can be very sensitive to the sample. An alternative approach to using the SPI is to assume that the underlying distribution of income of the very rich follows a distribution with a known shape, and a common approach is to use Pareto distribution.

Ongoing work by IFS researchers is exploring both of these methods in more detail, and is examining how sensitive are the resulting estimates of the amount of revenue lost by behavioural change to increases in the tax rates affecting the very rich, and therefore estimates of the revenue-maximising top rate of tax. This work has not yet been completed, but IFS hopes to publish a Briefing Note on it in the spring of 2009.

PBR 2008 contained no detail of how the government estimated the revenue that would be raised from the two proposed tax changes affecting the very rich, and the Treasury and HMRC have so far declined to release any details.

a. M. Brewer, E. Saez and A. Shephard, *Means-Testing and Tax Rates on Earnings*, submission to the IFS Mirrlees Review, Institute for Fiscal Studies, 2008 (http://www.ifs.org.uk/mirrleesreview/press_docs/rates.pdf).

Turning to the second explanation, previous work by researchers at IFS has shown that income growth at the very top of the income distribution has been highly correlated with the performance of the stock market.¹⁰ Given the recent falls in stock market indices around the world, this would lead us to expect that income growth at the very top of the income distribution would be lower than income growth slightly lower down between 2005 and 2011. This would lead to less income falling into the 45% bracket than we find by increasing all incomes by the same proportion, as we do above. However, the amount of money raised by this reform under the assumption of no behavioural response is relatively insensitive to differential earnings growth within the top 1% – if the incomes of the top 0.5% grew 1% per year faster than those lower down the income distribution, this reform would raise £3.7 billion a year, while if they grew 1% slower per year, it would raise £3.1 billion. The effect of changing the income growth of the top 0.5% does have a considerable impact on the total amount of revenue raised from income tax and NI, though.

As for the final point, to estimate the amount of revenue raised from this reform, one has to make assumptions about income growth among the very richest individuals to 2011–12, the shape of the income distribution and the responsiveness of those with very high incomes to changes in their marginal tax rate. We have argued in this section how difficult it is to know any of these things with any degree of precision. It is therefore right for the Treasury to be cautious when forecasting how much revenue this reform will raise.

Conclusion

The Treasury estimates that the introduction of the two new 60% income tax bands and the new 45% rate will together raise £3.2 billion, significantly less than the £5 billion that the Treasury estimates would be raised if the basic rate were increased from 20% to 21% in 2011–12.¹¹

The Treasury expects that the 45% band will raise £1.6 billion. In the absence of any behavioural response and given various assumptions about income growth to 2011–12, we estimate that it would raise £3.4 billion. This would suggest that the Treasury is expecting a considerable behavioural response to this reform.

Under the same assumptions about income growth among the very rich, we broadly agree with the Treasury's estimate that the two 60% income tax bands will raise £1.6 billion a year. This is because we might expect relatively little behavioural response to this change, given that, at least initially, not many people are likely to have their marginal tax rate changed by this reform. While it may be the case that the optimal tax schedule would involve a lower marginal tax rate at the very top of the income distribution than slightly lower down, it seems highly unlikely that it would have the two large spikes that the government is proposing.

Assessing the revenue implications of tax changes that affect this thinly-populated section of the income distribution is very hard at the best of times. Unfortunately, the Treasury has not published the assumptions that it has made regarding growth in incomes at this level or the behavioural responses that it expects. We have asked for this information in a

¹⁰ See M. Brewer, L. Sibieta and L. Wren-Lewis, *Racing Away? Income Inequality and the Evolution of High Incomes*, IFS Briefing Note 76, January 2008 (<http://www.ifs.org.uk/bns/bn76.pdf>).

¹¹ Source: Table 4 of HM Treasury, *Tax Ready Reckoner and Tax Reliefs*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_taxreadyreckoner_287.pdf).

Freedom of Information request, so as to undertake a more informed analysis. Regrettably, the Treasury and HMRC have asked for more time to consider this request on the grounds that releasing this information may harm the formation and development of government policy and may damage the economic interests of the United Kingdom. Therefore this information was unavailable as we went to press.

11.4 Alternative reform packages

As we have seen, the reforms announced by Alistair Darling last year will leave us with a very complicated structure of income tax and NI rates. In this section, we ask whether it would have been possible to achieve broadly the same revenue and distributional effects that the reforms are likely to produce in a simpler and less distorting way.

To that end, we look at two alternative packages, the main goals of which are:

- to align the points at which payments of income tax and employees' and employers' NI contributions begin;
- to be revenue neutral; and
- to minimise the distributional effects of the reforms.

We do not attempt to come up with a different income tax structure above £100,000, because – as discussed in Box 11.2 – there is considerable uncertainty about how much reforms affecting those with very high incomes would raise. We would like to know what single income tax rate on incomes over £100,000 would raise as much as the government's reforms in order to create a more rational tax rate structure while maintaining revenue and distributional neutrality. As Box 11.2 explains, researchers at IFS are exploring different ways of answering this question and we hope to publish conclusions in the spring of 2009.

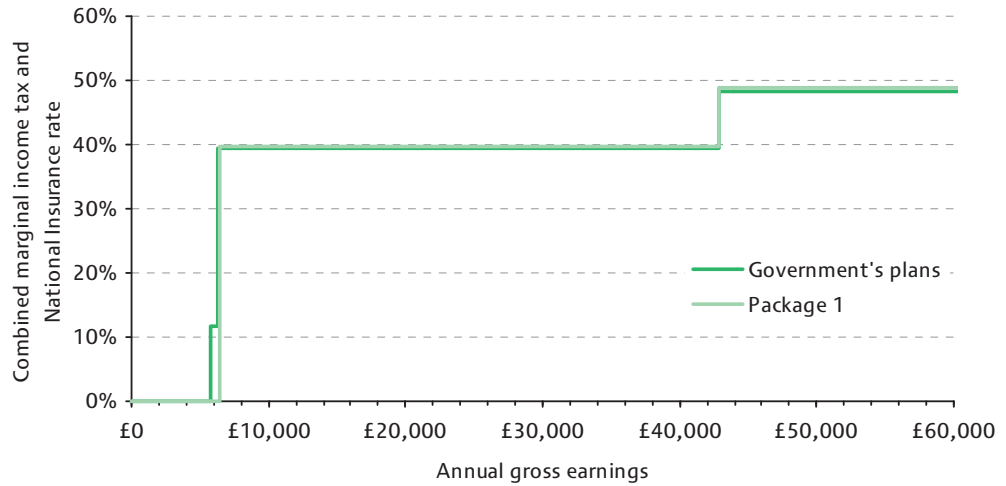
We have come up with two packages that would meet the above requirements. One of these ensures there are no low-income losers by increasing both the threshold for paying employers' NI and the NI threshold for the self-employed to the income tax personal allowance as well as increasing tax rates. The other package removes the need for the increased NI rates planned for 2011–12 and involves a lower top rate of income tax, but does this at the expense of reducing the income tax personal allowance and the threshold for paying employees' NI.

Starting from the government's plans for 2010–11, Package 1 makes the following changes:

- increasing the threshold for paying employers' NI to that for paying employees' NI and income tax, namely £122 per week;
- increasing the threshold for NI for the self-employed to £6,345 per year, the level of the income tax personal allowance;
- reducing the threshold for the withdrawal of the child and working tax credits to £6,345 per year (this is currently £6,420 and the default is for it to be frozen; there is a strong case for aligning it permanently with the income tax and NI thresholds, which are linked to the RPI);
- increasing the employers' NI rate by a further 0.3 percentage points to 13.6% both above and below the UEL;

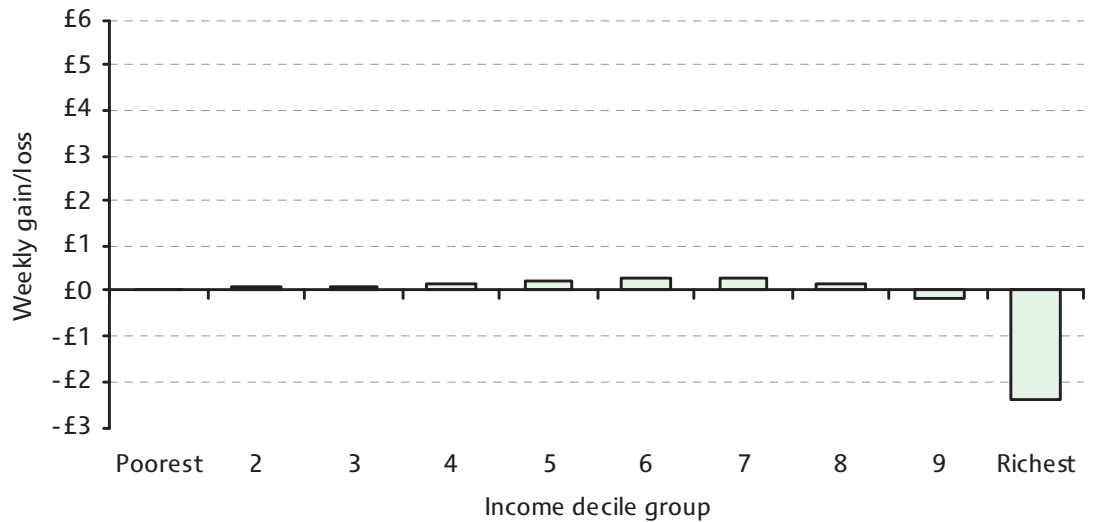
- increasing all NI rates for the self-employed by a further 0.3 percentage points below and above the upper profits limit to 8.8% and 1.8% respectively; and
- increasing the employees' NI rate above the UEL by a further 0.3 percentage points to 1.8%.

Figure 11.4. Effect of Package 1 on the combined income tax and National Insurance schedule



Notes: As Figure 11.3.
Source: Author's calculations.

Figure 11.5. Distributional impact of Package 1



Notes: Income decile groups are derived by dividing all families into 10 equal-sized groups according to income adjusted for household size using the McClements equivalence scale. Decile group 1 contains the poorest tenth of the population, decile group 2 the second poorest, and so on up to decile group 10, which contains the richest tenth. Assumes employers' NI contributions are incident on employees so that employer cost remains the same after the change to employers' NI.
Source: Author's calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on the 2006–07 Family Resources Survey.

Box 11.3. Assigning employers' National Insurance contributions

In our distributional analysis of the packages, we change individuals' gross earnings in each job they hold so that the cost to their employer of employing them remains the same before and after the reform. This means that employers' and employees' NI are treated in the same way, which is appropriate as both contribute to a wedge between the cost of an employee being employed and the employee's take-home pay, and therefore their ultimate impact on take-home pay will be the same. However, a 1 percentage point cut in employers' NI would not be worth as much to an individual as a 1 percentage point cut in employees' NI, as although it leads to higher gross earnings, some of these additional earnings are taxed away. Similarly, an increase in employers' NI does not reduce net income by as much as a similar increase in employees' NI because an increase in employers' NI leads to a reduction in gross earnings, which then reduces income tax and employees' NI payments.

To compare an individual's net income under two tax and benefit systems, we first run them through our tax and benefit microsimulation model under the original system. We then make the employers' NI adjustment to their gross earnings and run them through again under the new tax and benefit system to get their new net income level. The gain or loss from the reform is the difference between these two net income levels.

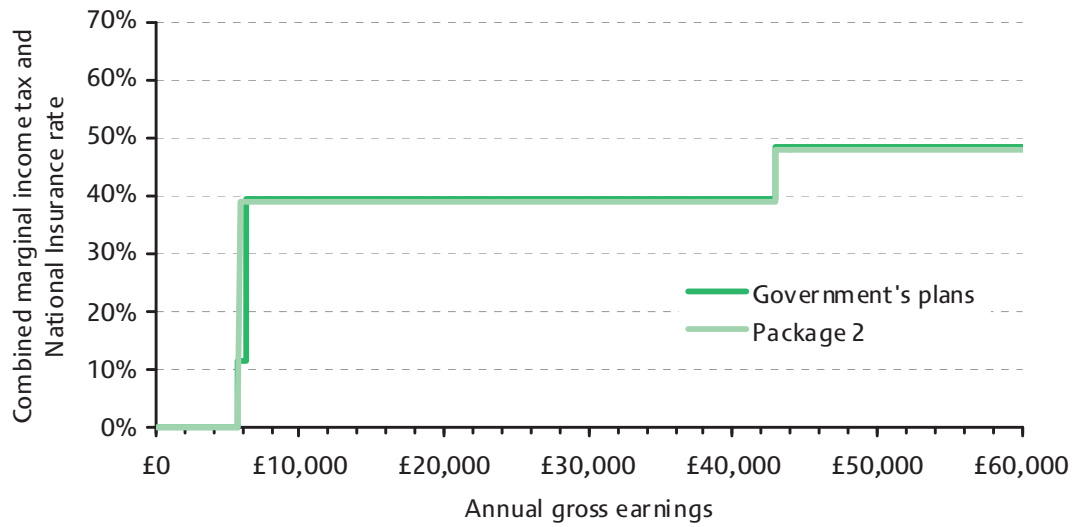
Figure 11.4 shows the effects of these changes on the combined income tax and NI schedule, again including employers' NI contributions. We see that these reforms create a simpler marginal rate structure, with only two rates on earnings below £100,000: 39.7% and 48.8% as a percentage of employer cost. (These include employers' NI, without which the marginal rates are 31.5% and 41.8% as a percentage of gross earnings.)

Figure 11.5 presents the distributional effects of the Package 1 changes. It shows that these reforms are essentially distributionally neutral relative to the government's planned reforms for 2011–12, as well as being revenue neutral. Indeed, more than three-quarters of families would be affected by less than a pound a week by these changes. The gains from the higher thresholds for paying NI for employers (from which we would expect employees to benefit, as explained in Box 11.3) and the self-employed slightly more than offset the losses from the higher NI rates for the bottom eight deciles on average, but do not quite offset the losses for the richest two deciles.

Package 2 consists of the following changes relative to the government's plans for 2011–12:

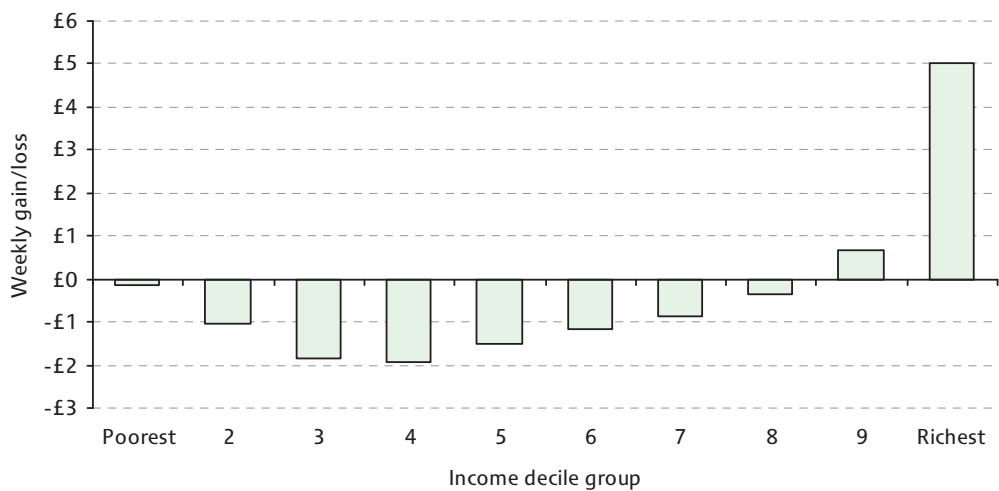
- the planned increase in all NI rates of 0.5 percentage points in 2011–12 does not go ahead;
- the income tax personal allowance is reduced to £5,815 in 2011–12;
- the threshold for paying employees' NI is increased to this lower personal allowance in 2011–12, an increase from £110 to £112 per week rather than to £122 per week as is currently intended;
- the threshold for paying employers' NI contributions is increased to £112 per week;
- the threshold for paying NI for the self-employed is increased to £5,815 per year; and
- the threshold at which the child and working tax credits start to be withdrawn is reduced to £5,815 per year.

Figure 11.6. Effect of Package 2 on the combined income tax and National Insurance schedule



Notes: As Figure 11.3.
Source: Author's calculations.

Figure 11.7. Distributional impact of Package 2



Notes: As Figure 11.5.
Source: Author's calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on the 2006–07 Family Resources Survey.

Figure 11.6 shows the effects of these changes on the combined income tax and NI schedule, including employers' NI. Again, the package creates a simpler marginal rate schedule, with only two tax rates below £100,000: 38.8% and 47.7% (as a percentage of employer cost). Excluding employer NI reduces these to 31% and 41% as a percentage of gross earnings.

Figure 11.7 shows the distributional impacts of the Package 2 changes. This package is less distributionally neutral than package 1, mainly because those towards the bottom of the income distribution are paying more income tax and NI because the thresholds have been lowered while those at the top benefit from lower NI rates. Even so, more than half of families are affected by less than a pound a week by these changes. Low-income

families with children also receive up to £235 a year less in tax credits because of the drop in the threshold at which they start to be withdrawn.

11.5 Conclusions

We have seen that the government's proposed reforms to income tax and National Insurance create a combined income tax and NI schedule that is overly complicated, with additional marginal rates created by the misalignment of key parameters and the phasing-away of the personal allowance from those with incomes over £100,000. This chapter has demonstrated that it is possible to realign income tax and NI thresholds while broadly maintaining revenue and distributional neutrality.

This chapter has also discussed the likely behavioural responses to the government's proposed income tax changes affecting the very rich. The phasing-out of the personal allowance from those with incomes greater than £100,000 is likely to distort the behaviour of a small number of individuals considerably. While it is possible that an optimal tax schedule would have higher marginal rates slightly below the top of the income distribution than at the very top, it seems very unlikely that it would feature the two large spikes in the marginal rate schedule that the government is proposing.

It would appear that the government is anticipating a substantial behavioural response to the proposed new 45% tax rate on incomes over £150,000. It is very difficult, however, to estimate how much particular reforms will raise, as this requires accurate information about income growth among the very rich, the shape of the income distribution and the responsiveness of the very rich to changes in their marginal tax rate, all of which are subject to a high degree of uncertainty. The Treasury has so far declined to publish the assumptions it has made when estimating how much these reforms would raise.

12. Business taxation

Rachel Griffith, Helen Miller and Martin O'Connell (IFS)

Summary

- Finance Bill 2009 will move the UK to an exemption system under which most foreign dividends will be exempt from UK taxation. This is a welcome move that will put the UK more in line with other European countries and should help UK multinationals to make more productive use of their assets.
- The planned increase in the small companies' rate of corporation tax from 21% to 22% in April 2009 has been deferred by one year as part of a package aimed at supporting small businesses during the recession. This deferral is unlikely to be very effective, and maintains a greater artificial incentive for businesses to change legal form for tax purposes. The government would be better to settle on a small companies' rate and support small businesses by other means. In the long term, it is not clear that there should be separate tax rates for large- and small-profit firms.
- Empty properties with a rateable value of less than £15,000 will be exempt from business rates for the financial year 2009–10, but will be taxed again from April 2010. Neither regime is neutral towards the use of land.

12.1 Introduction

This chapter considers a number of announcements made in the November 2008 Pre-Budget Report (PBR) that are designed to provide additional support to businesses. Section 12.2 considers the taxation of companies' foreign profits and the ensuing move to an exemption system. Section 12.3 discusses the deferral of the planned increase in the small companies' rate of corporation tax from 21% to 22%. Section 12.4 covers empty property relief, which will exempt low-valued property from business rates for financial year 2009–10. Section 12.5 concludes.

12.2 Taxation of companies' foreign profits

At present, UK-resident companies are taxed on profits that are earned overseas, with a credit given for any taxes paid to foreign governments. In June 2007, the Treasury and HM Revenue and Customs (HMRC) issued a discussion document¹ that proposed moving to a system in which foreign dividends are exempt from UK corporation tax. The stated aims of the proposal were to simplify the tax treatment of foreign profits, make the rules more certain and straightforward, and increase the competitiveness of the UK's tax system.

¹ *Taxation of Companies' Foreign Profits: Discussion Document*, June 2007 (http://www.hm-treasury.gov.uk/consult_foreign_profits.htm).

Dividend exemption introduces an incentive for investors to move income abroad to countries with a lower corporation tax rate and then repatriate the returns as tax-free dividends. To protect the domestic tax base, the discussion document proposed moving away from the existing set of rules that define taxable income – known as the Controlled Foreign Companies (CFC) regime – to a new regime. This would have overhauled the ways in which tax avoidance is tackled.

These proposals proved controversial. In the November 2008 PBR, the government confirmed that a system of dividend exemption will be introduced in the 2009 Finance Bill. But the CFC regime will not be abolished – it will remain in place with additional new anti-avoidance rules. There will also be further consultation on future reforms to the rules that define taxable income.

The move to exemption

The move to an exemption system announced in the PBR means that when a multinational firm repatriates dividends into the UK, these will be exempt from UK corporation tax. Exemption will include shareholdings that represent less than 10% of a foreign company (portfolio shares). This moves the UK more into line with other European countries, most of which operate exemption systems.

A significant reason for moving towards an exemption system is that it reduces one way in which the tax system distorts firms' decisions over where to invest. Neutrality is one way in which tax systems are judged, the idea being that a well-designed tax system should not distort decisions over how much investment occurs, where it takes place and who undertakes it (unless there is a specific justification for doing so). There are different types of neutrality, and the extent to which any are realised depends not only on the UK tax system but also on the systems operated by other jurisdictions.

In theory, the current credit system taxes investments from the UK in the same way regardless of their destination. This adheres to the concept of *capital export neutrality* (CEN): investors in the UK face the same effective tax rate on foreign and domestic investments. Since competitive pressures should ensure cross-country after-tax rates of return are equalised, CEN ensures that pre-tax rates of return are also brought into line. In this way, a regime of CEN tends to equalise the marginal productivities of capital across countries, as required for maximisation of world income. In practice, the current credit system that is in place in the UK fails to achieve CEN because tax credits are limited to the level of the domestic tax and income repatriation can be deferred.

A particular asset or investment may be much more productive in the hands of one multinational than it would be in the hands of another, so it is important that the tax system does not distort the pattern of ownership. *Capital ownership neutrality* (CON) occurs when inward or outward investments are treated the same for the tax purposes regardless of who owns them. CON can be achieved if all countries exempt foreign income from domestic tax and apply the same rules for deducting financing costs. Under a pure exemption system, investments in any single location would be liable for the same tax regardless of their country of origin and, as a result, the assets invested in each country would be held by those companies that could earn the highest pre-tax (and hence highest after-tax) return on them. Moving to an exemption system would move the UK closer to CON, especially since many other countries (and almost all European countries) also operate exemption systems.

Is all foreign income included?

Two forms of foreign-source income are excluded from the exemption system that will be introduced in the 2009 Finance Bill:

- First, income earned in foreign branches of UK firms, as opposed to foreign subsidiaries, will still be taxed under the old credit system. This means that the tax system retains an important non-neutrality with respect to legal form, with branch profits taxed differently from dividends paid from the profits of foreign subsidiaries.
- Second, small businesses – those with fewer than 50 employees and a turnover not exceeding €10 million – will not be subject to exemption, and will instead remain in the credit regime. In the original proposals, the main argument for not bringing small businesses into the exemption system was that the new anti-avoidance regime was deemed inappropriate for them. As highlighted in Green Budget 2008,² it is not clear why the same profits in different hands should be taxed differently. If there is a case for producing a more straightforward regime for large and medium business, then there is surely an equally strong case for doing so for small business. The government is continuing to consider the changes that would be best for small business.

Anti-avoidance rules and the definition of foreign-source income

The exemption system gives companies an incentive to shift income to lower-tax regimes and then repatriate them to the UK as tax-exempt dividends. There are a number of mechanisms through which a multinational may artificially shift income offshore. For example, a multinational could manipulate the price of intra-firm transactions (transfer prices) in such a way as to overcharge the part of the company located in the high-tax area and in doing so reduce the taxable profits in that country. Expenses that are shared across the group – for example, headquarters or other overheads costs – could be allocated to a high-tax area, again reducing taxable profits, or a multinational could shift income through the use of debt. For example, if a UK multinational has a subsidiary in a lower-tax country, the subsidiary could make a loan to the UK-based firm and the UK firm can then claim interest deductions against its profits.

Because of these incentives to shift income artificially for tax purposes, it is necessary that a number of anti-avoidance measures be introduced alongside exemption. The main measure, which aims to address income shifting via the use of debt, is a worldwide debt cap on tax deductions for interest claimed by UK members of a multinational group. The debt cap will be calculated by reference to the group's consolidated net external finance costs. This means that the extent to which a UK firm that borrows money from other parts of the company can then claim a tax deduction on the interest incurred will be limited by the amount the whole company has borrowed from outside sources. For example, if a UK multinational as a whole had borrowed £5 million from the external market, then the UK firm would be limited to claiming interest deduction on £5 million. If the UK subsidiaries of the multinational have higher finance costs than the overall external finance costs of the entire group, HMRC would see this as an indication that interest expenses have been allocated to the UK subgroup artificially with the purpose of reducing the entire group's worldwide tax bill.

² See M. Gammie, R. Griffith and H. Miller, 'Taxation of companies' foreign profits', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap12.pdf>).

The most controversial aspects of the government's original proposals to move to an exemption system were the proposed anti-avoidance measures, which aimed to tax profits that are artificially shifted away from the UK. As a result, the current CFC rules (see Box 12.1) will not be scrapped but amended, with provisions added to limit the potential tax avoidance behaviour under an exemption system. Draft legislation released on 9 December 2008 details how the avoidance measures will operate initially.³ The government has emphasised that consultation will continue and that the draft clauses set out in December are likely to be modified.

Box 12.1. Controlled Foreign Companies regime

Under the current credit system, the UK normally taxes the profits of foreign subsidiaries only when they are remitted to the UK in the form of dividends. This means that UK multinational companies have the scope to defer UK taxation indefinitely by keeping the profits of their foreign subsidiaries offshore. To counter this, the UK operates a CFC regime that limits the extent to which companies can defer UK tax by retaining profits in a jurisdiction with a lower corporation tax rate.

Broadly speaking, a company is treated as a CFC if it is resident outside the UK, is subject to a tax regime with a significantly lower rate of tax than the UK (less than 75% of the tax rate applied in the UK) and is controlled by UK residents. In such cases, the UK-resident company is taxed on the proportion of the profits of the CFC that can be attributed to the UK by virtue of the size of its shareholding (provided that such profits account for at least 25% of the total profits of the CFC).

There will be new provisions added to the CFC regime when the UK moves to an exemption system in order to tackle avoidance behaviour.

What is the likely impact of the move to an exemption system?

How big an impact would the proposed exemption of foreign dividends have on after-tax returns to investment?

The move from a credit system to an exemption system may be seen as a move from residence-based taxation (based on the residence of the investor) to a source-based system (based on taxing income where it is earned). However, in practice, domestic taxes under the credit system are deferred until income is repatriated from the foreign subsidiary and, as a result, the system already tends to work like an exemption system. So to the extent that the current credit system is roughly equivalent to an exemption system, these reforms may not have a very big impact.

But, to the extent that the current system does not operate in effect as an exemption system, UK-based parent companies are at a disadvantage compared with firms located in countries that exempt foreign-source income (for example, most European countries). This disadvantage will be removed under the new system, thus increasing the after-tax return to some investments. However, the disadvantage is only relevant for investments into countries with lower tax rates than the UK, since (even with deferral) the net

³ A full description of all the provisions set out in the December legislation can be found in 'Taxation of the foreign profits of companies: draft provisions', December 2008 (http://www.hm-treasury.gov.uk/consult_foreign_profits.htm).

dividend income is the same in both the credit and the exemption systems when the subsidiary is based in a jurisdiction with the same or a higher tax rate.

The ownership neutrality implied by an exemption system could help UK multinationals make more productive use of their assets. The current UK taxation of foreign dividends discourages UK firms from investing in low-tax countries more than do the tax systems of the firms in exemption countries with which they compete. With a switch to exemption, UK multinationals may relocate some of their overseas activities from foreign high-tax to foreign low-tax countries to take advantage of increased after-tax profitability.

The move to an exemption system and the planned anti-avoidance measures are likely to keep the system as a hybrid between the source and residence principles. For example, foreign-branch income and interest received by UK companies will still be taxed in the UK.

12.3 Taxation of small companies

In Budget 2007, the government announced that the so-called small companies' rate of corporation tax – levied on businesses with profits below £300,000 – would be increased from 19% to 20% in April 2007, to 21% in April 2008 and to 22% in April 2009. The first two increases went ahead as planned, but the November 2008 PBR announced that the third would be deferred by one year (until April 2010) as part of a package aimed at supporting small companies during the recession. This decision was the latest in a long line of changes to corporation tax – and in particular the small companies' rate – since Labour came to power.

One of the stated aims of the staged increase in the small companies' rate was to reduce the tax 'differential between incorporated and unincorporated businesses'.⁴ The ability and willingness of individuals to exploit this differential was starkly demonstrated in 2002 when the introduction of a 0% 'starting rate' of corporation tax on profits up to £10,000 led to a spike in new incorporations, many of which seem to have been purely for tax purposes. In response, the government abolished the starting rate in 2006. The planned increases in the small companies' rate further reduce the incentive for tax-motivated incorporations. The temporary deferral therefore delays the time at which such incentives are reduced and adds yet more uncertainty to the future of the small companies' tax rate.

Organisational form

By switching organisational form, small businesses can change the regime under which their income is taxed. A self-employed individual (i.e. an unincorporated business) will be taxed under the personal tax system with profits liable to both income tax and National Insurance (NI). In contrast, an individual who forms an incorporated business can take part of his or her income as dividends, which are subject to corporation tax, and part as wages, which are taxed under the personal tax system.⁵ Since at least 1997, there has

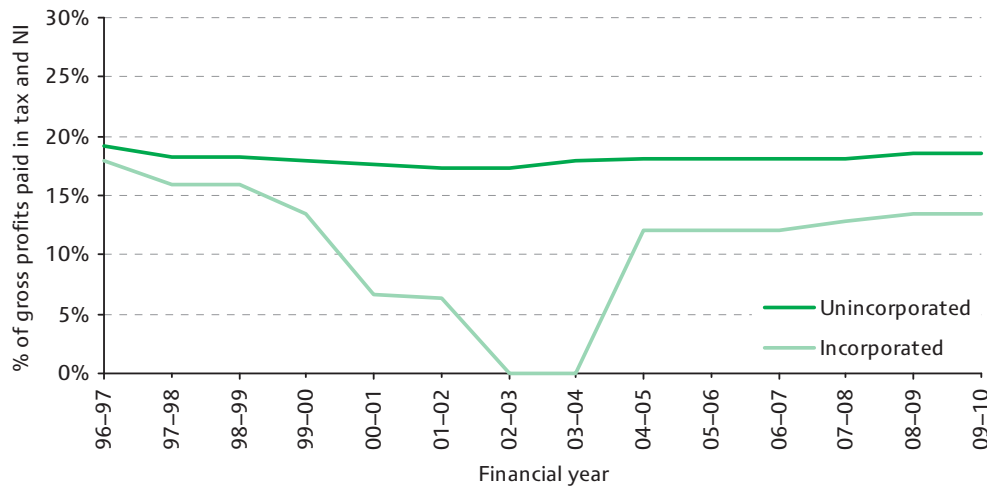
⁴ Page 49, paragraph 3.23 of HM Treasury, *Budget 2007*, March 2007 (http://www.hm-treasury.gov.uk/bud_bud07_index.htm).

⁵ For basic-rate income tax payers, dividends are effectively not taxed under the personal income tax system, while for higher-taxed individuals, they are taxed at a reduced rate. In both cases, dividends do not attract National Insurance. For further information, see C. Crawford and J. Freedman, *Small Business Taxation: a*

been a tax incentive to take the latter route: for the vast majority of profit-making small businesses, tax liability is minimised by incorporating, taking the income tax personal allowance as wages and taking the remainder as dividends.

Figures 12.1 and 12.2 illustrate the size of this incentive since 1996–97. Figure 12.1 shows the percentage of gross income that is paid in tax and NI for both unincorporated and incorporated businesses with profits of £15,000 a year. Figure 12.2 shows the same but for businesses making £25,000 a year. In both cases, the tax bill is lower for incorporated businesses than for unincorporated businesses. The incentive to incorporate increased during the 1990s and early 2000s as the government reduced the small companies' rate of corporation tax and introduced a starting rate of corporation tax. The abolition of the starting rate and the increase in the small companies' rate have reduced these incentives again. For the financial year 2009–10, the percentage of gross profits paid out in tax and National Insurance will be around 5 percentage points higher for unincorporated than for incorporated businesses.

Figure 12.1. Percentage of £15,000 gross profits paid in tax and NI over time, by legal form



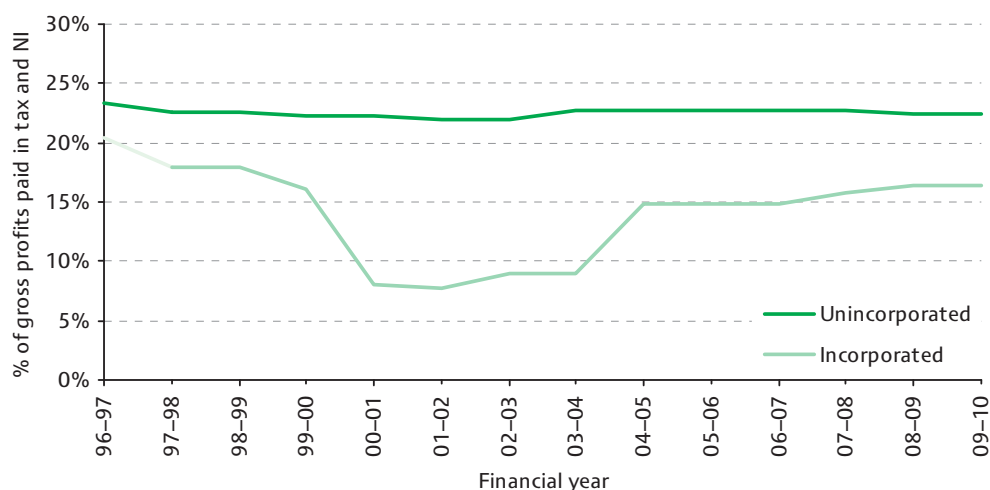
Notes: All allowances and thresholds used in these calculations are in 2008–09 prices. It is assumed that the incorporated individual pays themselves a salary equal to the personal allowance, with the remaining profits extracted in the form of dividends (on which corporation tax and income tax on dividend income must be paid).

Sources: C. Crawford, 'Corporation tax and entrepreneurship', in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104

(<http://www.ifs.org.uk/budgets/gb2008/08chap11.pdf>), updated using *Tolley's Income Tax*, various years and *Tolley's National Insurance Contributions*, various years; *Tolley's Corporation Tax*, various years.

special study of the structural issues surrounding the taxation of business profits of owner managed firms, submission to the IFS Mirrlees Review, Institute for Fiscal Studies, 2008 (http://www.ifs.org.uk/mirrleesreview/press_docs/small_businesses.pdf).

Figure 12.2. Percentage of £25,000 gross profits paid in tax and NI over time, by legal form



Notes: As Figure 12.1.

Sources: As Figure 12.1.

A move in the right direction?

The tax incentive to incorporate is likely to encourage some individuals to change organisational form simply for tax purposes. But the incentive may also encourage new economic activity – specifically, entrepreneurship – which contributes importantly to economic growth. Indeed, this was the government’s original justification for introducing the starting rate in 2000.⁶ An incentive to incorporate may encourage individuals to start genuinely new businesses (and not just relabel existing activities).

But why is a tax incentive for entrepreneurship needed? Will the market not reward entrepreneurship appropriately by itself? The answer is probably not: entrepreneurship tends to produce returns that cannot be fully captured by the entrepreneur (*externalities*). For example, when an entrepreneur introduces a new product to the market, others may be able to learn from that experience and borrow ideas. If entrepreneurs cannot capture all the returns to their activity, they are likely to undertake less of it than would be optimal from the point of view of society as a whole.

The central question, therefore, is: ‘To what extent does the tax incentive encourage entrepreneurship, and at what cost (in terms of purely tax-motivated incorporations)?’. The literature on entrepreneurship and the effect of taxes provides mixed evidence over whether lower taxes on corporations encourage entrepreneurship. At best, the positive effects found are very small. The UK’s recent experience provides little indication that the incentive to incorporate has increased entrepreneurship.⁷ In contrast, anecdotal evidence suggests there were significant numbers of tax-motivated incorporations in response to

⁶ In 2002, the Paymaster General, Dawn Primarolo, explained the thinking behind the starting rate: ‘We believe that cutting corporation tax is an effective way of targeting support at small and growing businesses. ... We want to create growth and economic activity, and to sustain entrepreneurial activity’ (House of Commons Standing Committee F, 16 May 2002, cols. 114–115).

⁷ For more details, see C. Crawford, ‘Corporation tax and entrepreneurship’, in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/budgets/gb2008/08chap11.pdf>).

the zero starting rate of corporation tax. The costs of offering a tax incentive to incorporation, at least through the instrument of a lower rate of tax on companies with lower profits, thus appear to outweigh the benefits.

The increase in the small companies' rate reduces the incentive to incorporate for tax purposes and therefore appears to offer an improvement to the current UK situation.⁸

Temporary deferral

As outlined above, differential effective tax rates levied on unincorporated and incorporated businesses mean that the tax system provides an incentive for individuals to incorporate for tax purposes. The increase in the small companies' rate to 22% is a step towards removing this distortion. Temporary deferral delays the time at which the distortion is reduced, and adds to uncertainty about the future tax rate on small companies.

The idea behind the deferral is to avoid increasing tax on business at a time when the economy is moving into a recession. However, it is not clear that this will be an effective way to stimulate economic activity in 2009–10. Businesses make investment decisions based on the expected tax rates for the duration of an asset's productive life and not just based on the current corporate tax rate. A one-year deferral of the small companies' rate increase might therefore be expected to have little effect on investment. It is also not clear that the temporary deferral will help credit-constrained firms in the near future, since it will be some time before they feel the financial benefit. Small companies do not pay their corporation tax until nine months after the end of the financial year, so the tax savings for financial year 2009–10 will not be realised until the end of 2010. Indeed, the Treasury's own estimates suggest that of the cumulative £610 million cost of this deferral over the three years from April 2009, only £20 million will be given away in 2009–10.⁹

Stability and a lack of uncertainty are important features of a good tax system. Rather than regularly tweaking the tax system, it would be better for the government to make a judgement about the small companies' rate and then stick to it. At the end of the day, we see no good economic rationale to have a different tax rate on small profits and large ones. One option, therefore, would be to align the small companies' rate with the main rate of corporation tax.¹⁰

12.4 Empty property relief

In Budget 2007, the government announced reforms to national non-domestic rates – commonly known as 'business rates' – that reduced the generosity of relief on empty property. In particular, starting in April 2008, relief enjoyed by empty property was

⁸ For discussion of changing incentives, see C. Crawford and J. Freedman, *Small Business Taxation: a special study of the structural issues surrounding the taxation of business profits of owner managed firms*, submission to the IFS Mirrlees Review, Institute for Fiscal Studies, 2008 (http://www.ifs.org.uk/mirrleesreview/press_docs/small_businesses.pdf).

⁹ Source: Page 10, table 1.2 of HM Treasury, *Pre-Budget Report 2008*, December 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_repindex.htm).

¹⁰ For discussion of aligning corporate tax rates, see C. Crawford and J. Freedman, *Small Business Taxation: a special study of the structural issues surrounding the taxation of business profits of owner managed firms*, submission to the IFS Mirrlees Review, Institute for Fiscal Studies, 2008 (http://www.ifs.org.uk/mirrleesreview/press_docs/small_businesses.pdf).

reduced. The idea was to encourage owners to relet or redevelop vacant properties, with the hope that this would help reduce property prices and encourage the more efficient use of land. In PBR 2008, as part of a package aimed at helping small businesses through the recession, the government temporarily amended the system, allowing full relief for low-valued property for the financial year 2009–10. The government claimed that this particular measure would assist small businesses manage short-term pressures arising from a distressed property market. This means that, since 2007, three different business rates regimes have been in place:

Regime 1: Before April 2008

- Vacant industrial property received 100% business rates relief (i.e. paid no business rates).
- Vacant commercial property received 50% relief after an initial three months of 100% relief.

Regime 2: From April 2008

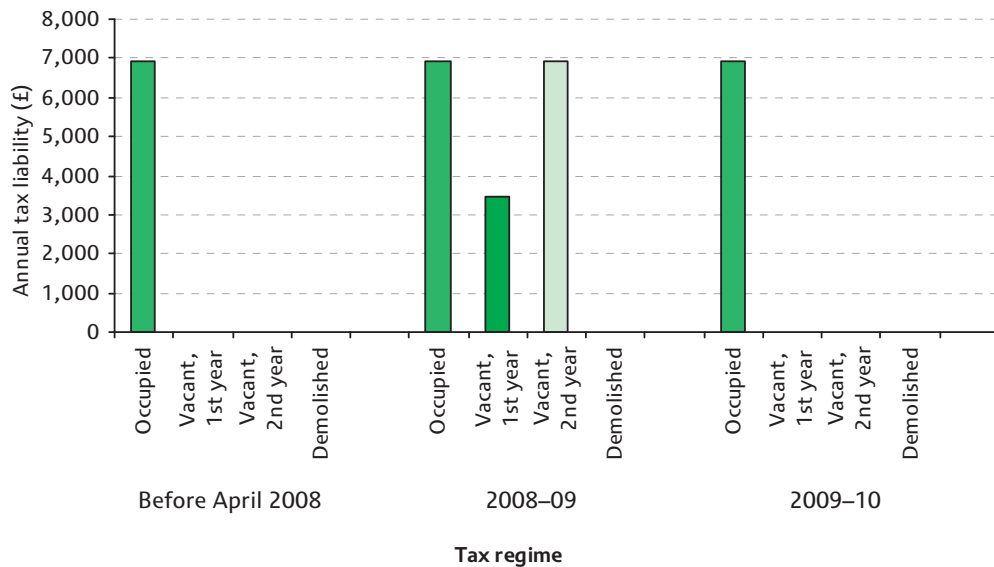
- Vacant industrial property became liable for full business rates after lying empty for an initial six months.
- Vacant commercial property became liable for full rates after lying empty for an initial three months.

Regime 3: April 2009 to April 2010

- For financial year 2009–10, both empty industrial and commercial property with a rateable value of less than £15,000 will be exempt from paying business rates. (An estimated 70% of empty properties have a rateable value less than £15,000.)
- From April 2010, taxation of empty property returns to the way it was under regime 2.

Figures 12.3 and 12.4 illustrate the way in which empty property is treated relative both to occupied property and to property that is demolished or allowed to fall into a state of disrepair. Figure 12.3 is for industrial property and Figure 12.4 is for commercial property, with both graphs based on a property with a rateable value of £14,999. The dark-green bars represent the annual tax liability if the building is occupied, the mid-green bars represent the size of the liability if it is vacant but was occupied in the previous year, and the light-green bars represent the size of the liability if it is vacant and was vacant in the previous year, while in each case the tax liability if the building is demolished is zero.

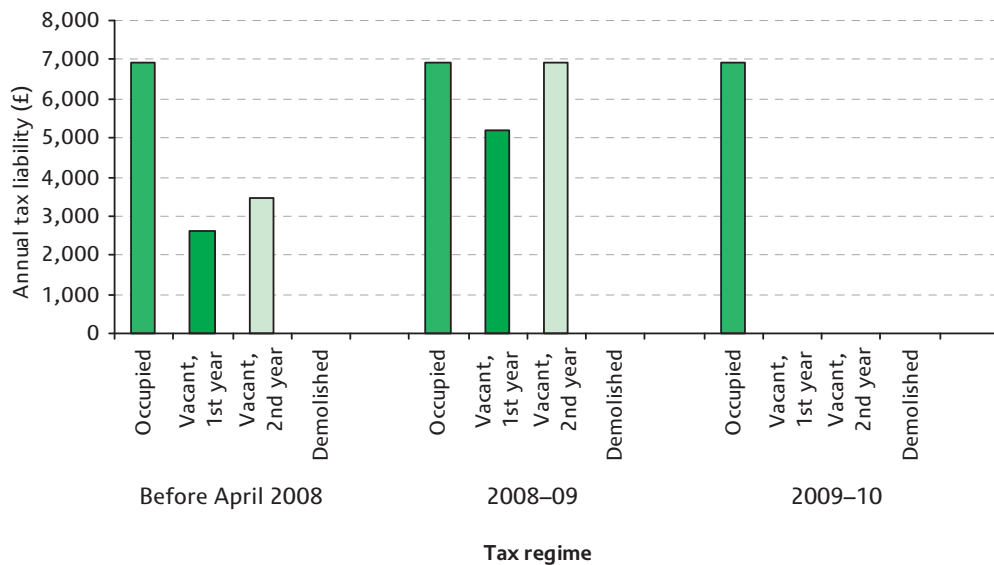
Figure 12.3. Three regimes of business rates by occupation status: industrial property



Notes: Figures are based on a property with a rateable value of £14,999. Tax liability is calculated, subject to relief, by multiplying the rateable value by the 2008-09 standard multiplier, which is 46.2p. In the City of London the multiplier is slightly higher, while for small businesses it is slightly lower. The multiplier used in Scotland and Wales is determined by the devolved administrations and differs slightly from that used in England, while the tax regime used in Northern Ireland combines a regional multiplier with locally-varying district multipliers.

Source: Authors' calculations using the multiplier and the relevant tax regimes.

Figure 12.4. Three regimes of business rates by occupation status: commercial property



Notes: As Figure 12.3.

Source: As Figure 12.3.

A number of points emerge from Figures 12.3 and 12.4:

- The effect of the Budget 2007 change was to increase the tax on empty properties; the annual tax levied on a newly-vacant property became closer to that levied on occupied property, while the tax levied on already-empty property became the same as that levied on occupied property. The results were a reduction in the tax incentive faced by property owners to allow occupied properties to become empty and the elimination of the tax incentive to keep already-vacant properties empty.
- But the Budget 2007 change also created a difference between the tax levied on a vacant property and that levied on the property if it were demolished. So Budget 2007 increased the tax incentive faced by owners of empty property to demolish it or allow it to fall into a state of disrepair.
- The temporary amendment made in PBR 2008 returns us to a system that is close to the pre-April-2008 regime, by exempting empty property with a rateable value of less than £15,000 from business rates. This slightly reduces the incentive to demolish empty property but increases the incentive to keep it vacant. However, the tax incentive to demolish empty property is not eliminated, as in April 2010 empty property will once again become liable for rates – a fact that owners of empty property will take account of when evaluating the case for demolishing their property.

Incentives

As discussed in Section 12.2 on the taxation of companies' foreign profits, the government should avoid introducing artificial distortions to the tax system without clear justification. To remove such distortions from business rates, the government would have to adopt a system that was neutral with respect to the use of land – that is, one that taxes occupied, vacant and demolished property at the same rate. By doing so, it would ensure that the decision of how to use land would be unaffected by the prevailing tax regime. A land value tax – a tax levied on the value of the land ignoring the buildings that stand on it – would achieve this goal. A land value tax has the added benefit that land is an immobile asset in relatively fixed supply, meaning that taxing it would lead to minimal distortions. So while the current system affects land-use decisions, a land value tax would simply lead to a fall in the price of land, without distorting incentives to invest in and improve what stands on it. While international experience of a land value tax is limited, the obstacles impeding its implementation do not seem insurmountable.¹¹

Policy

Regardless of whether the government elects to move towards taxing land, it is clear that it should avoid making frequent adjustments to the tax system. Businesses make investment decisions factoring in their expected future tax liability. If the government continually alters the tax regime, it increases uncertainty, making an assessment of the after-tax returns to an investment more difficult, ultimately deterring businesses from investing. While the most recent business rates reforms, by temporarily introducing empty property rates relief, are aimed at assisting small businesses, it is far from clear that this is an effective, well-targeted policy. Instead of tinkering with the tax system, the

¹¹ R. Boadway, E. Chamberlain and C. Emmerson, *Taxation of Wealth and Wealth Transfers*, submission to the IFS Mirrlees Review, Institute for Fiscal Studies, 2008 (http://www.ifs.org.uk/mirrleesreview/reports/wealth_transfers.pdf).

government should select a business rate regime that minimises distortions and refrain from altering it unless there is good justification for doing so. Implementing a land value tax is the first-best solution. However, a useful start would be to remove any relief for empty property, whilst designing a tax avoidance regime that minimises the opportunities to avoid liability through allowing empty property to fall into a state of disrepair. The Budget 2007 reforms moved us in this direction by reducing empty property relief; however, they did not contain provisions for tackling tax avoidance.

12.5 Conclusions

The move to exemption of foreign-source income from UK corporation tax is welcome, as is the fact that the government has decided not to pursue its original proposal to replace the CFC regime with an entirely new regime. This was possible due to the fact that the government chose to consult on the measures, and then to act on the responses to that consultation. That is not to say further improvements could not be made in this area. Another step towards neutrality could come from also applying this improved regime to those firms with fewer than 50 employees as well as larger firms.

Other developments – on which the government chose not to consult – are less welcome. In particular, the decision to defer the planned increase in the small companies' corporation tax rate will come at the cost of increased uncertainty in the tax system, and is likely to deliver very little additional entrepreneurship relative to the cost of the policy. It is far from clear why low-profit companies should be rewarded with a lower rate of corporation tax than high-profit firms.

The temporary reduction in business rates for those owning empty properties in 2009–10 is also difficult to justify. It will do little to reduce the incentive to demolish property and again the change comes at the cost of added uncertainty in the tax system. In the longer term, a shift towards taxation of land values rather than property values is likely to be more efficient. In the meantime, the government should fix a rate of tax for unoccupied property and, unless there are very good reasons not to, stick to it.

That is not to say that temporary policies can never be justified. For example, targeted support for those likely to face credit constraints during the current turmoil in financial markets could improve economic efficiency and welfare. But those owning unoccupied properties might not be relatively likely to face credit constraints. And a policy of reducing the corporation tax bill payable in 2010–11 for those companies making small profits in 2009–10 seems very difficult to justify on economic grounds.

The main lesson with these reforms is, to misquote Elvis Presley, 'A little more conversation, a little less action please'.

Appendix A: Forecasting public finances

Carl Emmerson and Gemma Tetlow (IFS)

This appendix looks at the techniques used for the Green Budget public finance forecasts. It starts by comparing the forecasts made for borrowing in 2007–08 in last year’s Green Budget and the October 2007 Pre-Budget Report (PBR) with the eventual out-turn. It then goes on to provide more background information to the short-term and medium-term public finance forecasts that are set out in Chapter 6.

A.1 The accuracy of our previous forecasts

The January 2008 Green Budget forecast was for a lower level of current receipts and the same level of current spending as those published by the Treasury in the October 2007 PBR. The out-turn for the public finances in 2007–08 was stronger than either the 2007 PBR or the 2008 Green Budget forecast as a result of lower-than-forecast current spending and was in spite of lower-than-forecast current receipts.

The October 2007 PBR forecast that the current budget deficit in 2007–08 would be £8.3 billion, while the 2008 Green Budget forecast that it would be £10.8 billion. The actual estimated outturn from the 2008 PBR was a deficit of just £6.7 billion. Larger than forecast investment spending meant that the outturn for net borrowing diverged slightly less from the earlier forecasts, with net borrowing in 2007–08 estimated in the November 2008 PBR to have been £36.6 billion, compared to the October 2007 PBR forecast of £38.0 billion and the January 2008 Green Budget forecast of £40.5 billion.

Table A.1. A comparison of last year’s IFS Green Budget forecast and the Treasury’s October 2007 Pre-Budget Report forecast with the estimated out-turn for 2007–08 from the November 2008 Pre-Budget Report

<i>£ billion</i>	HM Treasury PBR forecast, October 2007	IFS Green Budget forecast, January 2008	Estimate, PBR, November 2008
Current receipts	551.2	548.7	547.5
Current expenditure ^a	559.5	559.5	554.2
Net investment	29.7	29.7	29.9
Total managed expenditure	589.2	589.2	584.1
Public sector net borrowing	38.0	40.5	36.6
Surplus on current budget	–8.3	–10.8	–6.7

a. Includes depreciation.

Sources: Out-turn figures for 2007–08 from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm). Forecasts from HM Treasury, *Pre-Budget Report and Comprehensive Spending Review*, October 2007 (http://www.hm-treasury.gov.uk/pbr_csr07_index.htm), and table 5.2 of R. Chote, C. Emmerson and G. Tetlow, ‘Green Budget public finance forecasts’, in R. Chote, C. Emmerson, D. Miles and J. Shaw (eds), *The IFS Green Budget: January 2008*, IFS Commentary 104 (<http://www.ifs.org.uk/projects/284>).

Table A.2. IFS Green Budget and Treasury errors in forecasting tax receipts, 2007–08

<i>£ billion</i>	Pre-Budget Report, October 2007	IFS Green Budget, January 2008
Income tax (net of tax credits)	+2.1	+2.1
National Insurance contributions	-3.9	-4.9
Value added tax	+0.8	+0.8
Corporation tax (net of tax credits)	+0.0	-2.0
Fuel Duties	+0.0	+0.0
Stamp duties	+1.0	+0.5
Other taxes	+0.9	+1.9
Net taxes & National Insurance contributions	+0.9	-1.6
Non-tax receipts ^a	+2.8	+2.8
Total current receipts	+3.7	+1.2

a. Includes accruals adjustments on taxes, the tax credits adjustments, interest and dividends, gross operating surplus and rent; net of oil royalties and business rate payments by local authorities, the own resources contribution to the EU budget and PC corporation tax payments.

Sources: As Table A.1.

Current receipts came in £3.7 billion weaker than forecast in the October 2007 PBR and £1.2 billion weaker than forecast in the January 2008 IFS Green Budget. Current spending (including depreciation) came in £5.3 billion lower than forecast by both the October 2007 PBR and the January 2008 IFS Green Budget. Public sector net investment was £0.2 billion higher than either of the previous forecasts suggested.

Table A.2 shows the breakdown of the errors in the forecasts for tax receipts contained in the October 2007 PBR and the January 2008 IFS Green Budget. Total current receipts were slightly overestimated by both the Treasury and the Green Budget. The largest errors within net taxes and social security contributions were in forecasting revenues from income tax and National Insurance contributions. Net income tax receipts were overestimated by both the October 2007 Pre-Budget Report and the January 2008 IFS Green Budget by £2.1 billion. However, in both cases this was more than offset by an underestimate, of £3.9 billion by the Treasury and £4.9 billion by the IFS Green Budget, in receipts from National Insurance contributions. The October 2007 PBR forecast for corporation tax receipts proved accurate, whereas the January 2008 IFS Green Budget forecast was £2.0 billion too pessimistic.

Outside of net taxes and social security contributions, there was also an apparently large absolute error in both forecasts for non-tax receipts: both the October 2007 Pre-Budget Report and the January 2008 Green Budget overestimated non-tax receipts by £2.8 billion.

A.2 Techniques used in our forecasts

For the current financial year, three different sources of information are examined before coming to a judgement for each element of government revenue. In addition to the latest

Treasury forecast from the November 2008 PBR, we use information from the revenues implied by a current receipts method, and the IFS modelled approach.¹

Information from current receipts

The current receipts method uses the information on receipts received in the current financial year compared with those received up to the same point in the previous financial year. An estimate for the whole of the current year's receipts is then calculated using the following formula:

$$2008-09 \text{ forecast} = \frac{\text{Receipts received so far this year}}{\text{Receipts received to the same point last year}} \times 2007-08 \text{ receipts}$$

While this is useful when forecasting revenues in the current financial year, it cannot provide projections for borrowing in future years. Also, particular caution should be used when revenues are cyclical or changes have been made that may affect the timing of payments.

The IFS modelled receipts approach

This estimates growth in each of the taxes using forecasts for the growth in the tax base relevant to each tax, combined with an estimate of the elasticity of revenue with respect to the growth in the tax base. Information on the revenue effects of pre-announced tax changes from previous Budgets is then added in order to reach a forecast. Hence, modelled receipts can be summarised by the following formula:

$$2008-09 \text{ forecast} = (2007-08 \text{ receipts} \times \text{Tax-base change} \times \text{Elasticity}) + \text{Tax changes}$$

This technique enables forecasts to be made for future years, given the expected structure of the tax system. It should be noted that these forecasts become considerably less accurate for later years, since forecasts for changes in tax bases, estimates of elasticities and the impact of tax changes all become less accurate.

The elasticities are largely estimated from TAXBEN, the IFS tax and benefit model. For fuel, an elasticity calculated from previous IFS research is used.² Elasticities for beer, spirit, wine and tobacco duties are taken from the median elasticity found in a range of UK studies.³

A.3 Forecasts for 2008–09

The Green Budget forecast is a judgement based on the Treasury's latest forecast contained in the November 2008 PBR, the current receipts method and the IFS modelled approach. Each of these is presented in Table A.3. Our forecast for total receipts in 2008–09 is £6.6 billion below that which the Treasury made in PBR 2008 as a result of anticipated shortfalls in income tax, VAT, capital gains tax and stamp duty receipts. There is, however, no divergence between our expectation of spending in 2008–09 and that published in the PBR.

¹ For a more detailed explanation of both these techniques, see C. Giles and J. Hall, 'Forecasting the PSBR outside government: the IFS perspective', *Fiscal Studies*, 19, 83–100, 1998.

² L. Blow and I. Crawford, *The Distributional Effects of Taxes on Private Motoring*, IFS Commentary 65, 1997.

³ M. Chambers, 'Consumers' demand and excise duty receipts equations for alcohol, tobacco, petrol and DERV', Government Economic Service, Working Paper 138, August 1999.

HM Revenue and Customs receipts

For **income tax** (net of tax credits), we forecast £147.1 billion. This is £4.1 billion below the Treasury forecast, and is the result of our following the forecast from the IFS model.

Our forecast for **National Insurance contributions** matches that of the Treasury (£97.7 billion). This is taken on the basis that the current receipts method suggests that receipts will be £96.9 billion, and if receipts over the last three months of this financial year grow at the same rate as seen over the previous three months (relative to the same months a year ago), receipts will come in at £97.7 billion.

We forecast **VAT** receipts of £81.5 billion, which is £1.1 billion below the Treasury's forecast. However, it is above the current receipts forecast – and looking at the monthly data from the last two months of 2008 rather than the last nine (which is what the current receipts method does) suggests that the out-turn could be even worse.

Our forecast for **corporation tax** (net of tax credits) is £45.0 billion. This is slightly (£0.1 billion) above the Treasury's forecast of £44.9 billion. Until we have data on receipts in January 2009 (due to be published in February 2009), the outlook for these receipts is particularly uncertain at the moment. Therefore we decided to put considerably more weight on the Treasury's forecast, which is more pessimistic than that implied by either the current receipts method or our forecasting model.

Our forecast for receipts from **stamp duties** of £7.6 billion is lower than the Treasury's forecast of £8.3 billion. For this, we take account of the Treasury PBR forecast that housing transactions in 2008–09 will be running at just below half their 2007–08 levels, the latest data from the Nationwide house price index, which suggest that prices fell 15.9% in 2008, and the roughly 30% fall in the FTSE-All Share index seen over the first nine months of this financial year. Combined, these suggest that stamp duty revenues will be £0.7 billion lower than forecast in the 2008 PBR.

For capital gains tax, we simply interpolate the Treasury's projected decline from £5.3 billion in 2007–08 to £2.4 billion in 2009–10 giving a projection of £3.9 billion in 2008–09. This is lower than the £4.9 billion forecast by the Treasury, but we note that a similar-sized fall in the stock market in 2001 led to a similar-sized decline in CGT revenues that the Treasury is forecasting over the two years, but that this decline crystallised sooner.

We forecast that **fuel duties** will yield £25.1 billion, which is the same as the Treasury's projection and similar to both the current receipts (£24.9 billion) and the IFS forecasting model (£25.4 billion).

Other government receipts

For all other receipts, we take the Treasury's forecasts for 2008–09.

Government expenditure

We forecast that **current spending** in 2008–09 will be £586.7 billion, which is the same as the Treasury's forecast. So far this year, central government spending is running in line with the forecast from PBR 2008.

We also assume that the Treasury's forecast for £36.5 billion of **public sector net investment** in 2008–09 is accurate.

Table A.3. Forecasts for government borrowing in 2008–09

<i>£ billion</i>	PBR Nov. 2008	Current receipts method	IFS forecasting model	IFS forecast judgement
Income tax (net of tax credits)	151.2	159.9 ^e	147.1	147.1
National Insurance contributions	97.7	96.9	104.7	97.7
Value added tax (VAT)	82.6	80.7	83.0	81.5
Corporation tax (net of tax credits)	44.9	46.2	46.9	45.0
Petroleum revenue tax	2.6	3.8	1.7	2.6
Fuel duties	25.1	24.9	25.4	25.1
Capital gains tax	4.9	n/a	5.8	3.9
Inheritance tax	3.1	3.0	3.1	3.1
Stamp duties	8.3	8.7	7.6	7.6
Tobacco duties	8.2	8.1	8.7	8.2
Spirits duties	2.3	2.4	2.5	2.3
Wine duties	2.8	2.7	2.8	2.8
Beer and cider duties	3.4	3.4	4.0	3.4
Betting and gaming duties	1.5	1.5	1.6	1.5
Air passenger duty	1.9	1.9	2.1	1.9
Insurance premium tax	2.3	2.3	2.6	2.3
Landfill tax	0.9	1.0	1.1	0.9
Climate change levy	0.7	0.7	0.7	0.7
Aggregates levy	0.4	0.4	0.4	0.4
Customs duties and levies	2.6	2.7	2.6	2.6
Total HMRC	447.1	451.1	454.3	440.5
Vehicle excise duties	5.8	5.7	5.7	5.8
Business rates	23.5	23.5	23.3	23.5
Council tax ^a	24.6	24.6	24.6	24.6
Other taxes and royalties ^b	15.7	15.7	15.0	15.7
Net taxes and NI contributions^c	516.6	520.7	523.0	510.1
Other adjustments ^d	28.8	28.8	28.8	28.8
Current receipts	545.5	549.5	551.8	538.9
Current spending	586.7	586.7	586.7	586.7
Current balance	-41.2	-37.2	-34.9	-47.8
Net investment	36.5	36.5	36.5	36.5
Public sector net borrowing	77.7	73.7	71.4	84.3

a. PBR figures are based on stylised assumptions rather than government forecasts.

b. Includes VAT refunds and money paid into the National Lottery Distribution Fund.

c. Includes VAT and the traditional 'own resources' contributions to the EU budget.

d. This line is a sum of accruals adjustments on taxes, tax credits adjustment, interest and dividends, and other receipts, less own resources contribution to EU budget and PC corporation tax payments.

e. Current receipts estimate of income tax revenues includes capital gains tax.

Sources: PBR forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); this table is similar to table B13 on page 203. Authors' calculations.

Government borrowing

As a result of forecasting lower current receipts and the same level of current spending, we forecast a **deficit on the current budget**, of £47.8 billion for 2008–09, that is £6.6 billion more pessimistic than the £41.2 billion deficit forecast by the Treasury.

Since we forecast the same level of net investment in 2008–09 as the Treasury does, our forecast for **public sector net borrowing** (£84.3 billion) is also £6.6 billion higher than the Treasury forecast of £77.7 billion.

A.4 Medium-term forecasts

Any assessment of the fiscal stance should take into account the performance of the economy. Table A.4 presents the macroeconomic forecasts underlying the Green Budget forecasts for the public finances in each of the four economic scenarios used.

For the Green Budget baseline forecast, the Treasury's macroeconomic forecasts are used, where these are available. The main exception to this is that, as discussed in more detail in Chapter 6, we assume that corporation tax receipts over the medium term are weaker than the Treasury has forecast. The Green Budget baseline forecast assumes that national income will shrink by ¼% in 2008–09 and a further ½% in 2009–10. After that it projects growth of 2% in 2010–11 and 3% a year thereafter. This path leads to the estimated output gap not being closed until one year after the end of the forecast horizon, in 2014–15.

Under the first alternative Green Budget scenario (the Morgan Stanley central case), there is slightly weaker growth in national income in 2008–09, slightly stronger growth in 2009–10, and similar in 2010–11 and 2011–12. From 2012–13 onwards, the economy is forecast to grow less strongly, as it is estimated that the economy will have already returned to trend activity (and in fact would move slightly above trend from 2011–12 onwards).

The second alternative Green Budget scenario (the Morgan Stanley 'pessimistic case') assumes that the economy shrinks by ¾% in 2008–09 and then by 2½% in 2009–10. After that, the economy recovers only very slowly, and yet is forecast to be back above trend in 2012–13.

The final alternative Green Budget scenario (the Morgan Stanley 'optimistic case') assumes that the economy grows by 1¼% in 2009–10 and then is able to grow by 3% or more – i.e. faster than estimated growth in trend activity – throughout the period from 2010–11 through to 2013–14.

Table A.4. Alternative macroeconomic assumptions underlying medium-term public finances forecasts

<i>Annual % change unless otherwise state</i>	2008	2009	2010	2011	2012	2013
	-09	-10	-11	-12	-13	-14
Green Budget baseline (PBR assumptions)						
Gross domestic product (GDP)	-¼	-½	2	3	3	3
Real consumers' expenditure	¾	-¾	-1½	2¼	3	3
Employment	-½	-1¼	½	1	1	1
Real wages	-1¾	5¼	1¼	¾	1½	1¾
GDP deflator	3¼	1½	2¾	2¾	2¾	2¾
Output gap (% of potential GDP)	-0.3	-1.5	-1.9	-1.3	-0.7	-0.1
Alternative Green Budget scenario I (Morgan Stanley central case)						
Gross domestic product (GDP)	-½	-¼	2	3	2¼	2½
Real consumers' expenditure	½	¼	1	2½	2¾	2
Employment	-½	-1¼	½	1	¾	¾
Real wages	-1¾	5½	-1¼	1½	1½	1
GDP deflator	4	¾	2¾	2¼	2½	2½
Output gap (% of potential GDP)	0.0	-1.5	-1.0	0.2	0.6	0.6
Alternative Green Budget scenario II (Morgan Stanley 'pessimistic case')						
Gross domestic product (GDP)	-¾	-2½	1	2	1 ½	2
Real consumers' expenditure	0	-2½	-¼	1	1¾	1¼
Employment	-½	-2¾	½	½	½	¾
Real wages	-1¾	7	¼	0	-¼	½
GDP deflator	4	-½	1¼	1½	2¾	2½
Output gap (% of potential GDP)	1.0	-2.0	-1.4	-0.1	0.7	1.2
Alternative Green Budget scenario III (Morgan Stanley 'optimistic case')						
Gross domestic product (GDP)	-0	1¼	3	3¾	3	3½
Real consumers' expenditure	¾	¼	1¾	2¾	3	2¾
Employment	-0	1	1¾	2¼	1½	¾
Real wages	3	2¾	3½	3¾	3	3¼
GDP deflator	4	1	3	2½	2½	2½
Output gap (% of potential GDP)	-0.6	-1.4	-0.8	0.4	0.7	1.4

Sources: Authors' calculations; Morgan Stanley; Treasury forecasts from HM Treasury, *2008 Pre-Budget Report*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm).

Appendix B: Headline tax and benefit rates and thresholds

	2008–09 level	2009–10 level ^a
Income tax		
Personal allowance: under age 65	£6,035 p.a.	£6,475 p.a.
aged 65–74	£9,030 p.a.	£9,490 p.a.
aged 75 and over	£9,180 p.a.	£9,640 p.a.
Married couple's allowance, restricted to 10%: aged 65 or over on 6 April 2000 aged 75 or over	£6,535 p.a. £6,625 p.a.	£6,865 p.a. £6,965 p.a.
Basic rate	20%	20%
Higher rate	40%	40%
Tax rates on interest income	10%, 20%, 40%	10%, 20%, 40%
Tax rates on dividend income	10%, 32.5% ^b	10%, 32.5% ^b
Starting-rate limit	£2,320 p.a.	£2,440 p.a.
Basic-rate limit	£34,800 p.a.	£37,400 p.a.
National Insurance		
Lower earnings limit (LEL)	£90 p.w.	£95 p.w.
Upper earnings limit (UEL)	£770 p.w.	£844 p.w.
Earnings threshold (employee and employer)	£105 p.w.	£110 p.w.
Class 1 contracted-in rate: employee – below UEL	11%	11%
– above UEL	1%	1%
employer – below UEL	12.8%	12.8%
– above UEL	12.8%	12.8%
Class 1 contracted-out rate: employee – below UEL	9.4%	9.4%
(salary-related schemes) – above UEL	1%	1%
employer – below UEL	9.1%	9.1%
– above UEL	12.8%	12.8%
Corporation tax		
Rates: small companies' rate	21%	21%
standard rate	28%	28%
Capital gains tax		
Annual exemption limit: individuals	£9,600 p.a.	£10,100 p.a.
trusts	£4,800 p.a.	£5,050 p.a.
Rate	18%	18%
Inheritance tax		
Threshold	£312,000	£325,000
Rate for transfer at or near death	40%	40%
Value added tax		
Registration threshold	£67,000 p.a.	£68,000 p.a.
Standard rate	15% ^c	15% ^c
Reduced rate	5%	5%
Excise duties		
Beer (pint at 3.9% abv)	36p ^d	36p ^d
Wine (75cl bottle at 12% abv)	157p ^d	157p ^d
Spirits (70cl bottle at 40% abv)	622p ^d	620p ^d
20 cigarettes: specific duty	224p ^d	218p ^d
<i>ad valorem</i> (24% of retail price)	129p ^d	127p ^d
Ultra-low-sulphur petrol (litre)	52p ^e	54p
Ultra-low-sulphur diesel (litre)	52p ^e	54p

Continues

Continued

	2008–09 level	2009–10 level ^a	
Air passenger duty			
Destinations within the EU:	economy	£10	£10 ^f
	club/first class	£20	£20 ^f
Destinations outside the EU:	economy	£40	£40 ^f
	club/first class	£80	£80 ^f
Betting and gaming duty			
Gross profits tax		15–50%	15–50%
Spread betting rate:	financial bets	3%	3%
	other bets	10%	10%
Insurance premium tax			
Standard rate		5%	5%
Higher rate (for insurance sold accompanying certain goods and services)		17.5%	17.5%
Stamp duty			
Land and buildings:			
residential threshold		£175,000 ^g	£175,000 ^g
non-residential threshold		£150,000	£150,000
rate: up to threshold		0%	0%
threshold–£250,000		1%	1%
£250,000–£500,000		3%	3%
above £500,000		4%	4%
Stocks and shares: rate		0.5%	0.5%
Vehicle excise duty			
Graduated system (for new cars from 1 March 2001)		£0–£400 p.a. ^h	£0–£405 p.a. ^h
Standard rate		£185 p.a.	£190 p.a.
Small-car rate (engines up to 1,549cc)		£120 p.a.	£125 p.a.
Heavy goods vehicles (varies according to vehicle type and weight)		£165–£1,850 p.a.	£165–£1,850 p.a.
Landfill tax			
Standard rate		£32 per tonne	£40 per tonne
Lower rate (inactive waste only)		£2.50 per tonne	£2.50 per tonne
Climate change levy			
Electricity		0.456 p/kWh	0.470 p/kWh
Natural gas		0.159 p/kWh	0.164 p/kWh
Coal		1.242 p/kg	1.281 p/kg
Liquefied petroleum gas		1.018 p/kg	1.050 p/kg
Business rates			
Rate applicable for high-value properties ⁱ in:	England	46.2%	48.1%
	Scotland	46.2%	48.1%
	Wales	46.6%	48.9%
Council tax			
Average rate band D council tax in England and Wales		£1,354 p.a.	Councils to set
Income support / income-based jobseeker's allowance			
Single (aged 25 or over)		£60.50 p.w.	£64.30 p.w.
Couple (both aged 18 or over)		£94.95 p.w.	£100.95 p.w.
Basic state pension			
Single		£90.70 p.w.	£95.25 p.w.
Couple		£145.05 p.w.	£152.30 p.w.
Winter fuel payment: for those aged 60–79		£250	£200
for those aged 80 or over		£400	£300

Continues

Continued

	2008–09 level	2009–10 level ^a
Pension credit		
Guarantee credit for those aged 60 or over: single	£124.05 p.w.	£130.00 p.w.
couple	£189.35 p.w.	£198.45 p.w.
Savings credit for those aged 65 or over:		
threshold – single	£91.20 p.w.	£96.00 p.w.
threshold – couple	£145.80 p.w.	£153.40 p.w.
maximum – single	£19.71 p.w.	£20.40 p.w.
maximum – couple	£26.13 p.w.	£27.03 p.w.
withdrawal rate	40%	40%
Child benefit		
First child	£20.00 p.w. ^j	£20.00 p.w.
Other children	£13.20 p.w. ^j	£13.20 p.w.
Child tax credit		
Family element (doubled for first year of a child's life)	£545 p.a.	£545 p.a.
Child element	£2,085 p.a.	£2,235 p.a.
Disabled child element	£2,540 p.a.	£2,670 p.a.
Working tax credit		
Basic element	£1,800 p.a.	£1,890 p.a.
Couples and lone-parent element	£1,770 p.a.	£1,860 p.a.
30-hour element	£735 p.a.	£775 p.a.
Disabled worker element	£2,405 p.a.	£2,530 p.a.
Childcare element:		
maximum eligible cost for one child	£175.00 p.w.	£175.00 p.w.
maximum eligible cost for two or more children	£300.00 p.w.	£300.00 p.w.
proportion of eligible costs covered	80%	80%
Features common to child and working tax credits		
First threshold	£6,420 p.a.	£6,420 p.a.
First threshold if entitled to child tax credit only	£15,575 p.a.	£16,040 p.a.
First withdrawal rate	39%	39%
Second threshold	£50,000 p.a.	£50,000 p.a.
Second withdrawal rate	1 in 15	1 in 15
Maternity benefits		
Sure Start maternity grant	£500	£500
Statutory maternity pay: weeks 1–6	90% earnings	90% earnings
weeks 7–33	£117.18 p.w., or 90% earnings if lower	£123.06 p.w., or 90% earnings if lower
Maternity allowance	£117.18 p.w.	£123.06 p.w.

a. 2009–10 figures take pre-announced values where available and estimated results of standard indexation otherwise.

b. Offsetting tax credit available, which reduces effective tax rates to 0% and 25%.

c. The 15% rate applies from 1 December 2008 until 31 December 2009. Before and after these dates, the standard rate of VAT was/will be 17.5%.

d. The 2008–09 figures apply from November/December 2008 rather than the beginning of the tax year. The 2009–10 figures assume indexation in line with negative (–2¼%) RPI inflation in the year to September 2009, plus the government's commitment to a 2% real increase in the case of alcohol duties.

e. Applies from 1 December 2008 rather than the beginning of the tax year. From April to November 2008, the duty was 50p per litre.

f. Air passenger duty due to be reformed from November 2009.

g. £175,000 threshold applies from 3 September 2008 to 2 September 2009. Before and after these dates, the threshold was/will be £125,000, or £150,000 in designated disadvantaged areas.

h. Highest rate applies only to cars registered on or after 23 March 2006. For cars registered before this date, the highest rates are £210 and £215 for 2008–09 and 2009–10 respectively

i. Applies where rateable values are at least £21,500 in Greater London, £15,000 in the rest of England, £29,000 in Scotland and £5,000 in Wales. Lower rates apply below these thresholds.

j. Applies from 1 January 2009. Prior to this, the rates payable since April 2008 were £18.80 and £12.55 per week.

Sources: See next page.

Sources: Various HM Treasury and HM Revenue and Customs Press Releases, March 2008 and December 2008; HM Treasury, *Pre-Budget Report 2008*, November 2008 (http://www.hm-treasury.gov.uk/prebud_pbr08_index.htm); HM Treasury, *Tax Ready Reckoner and Tax Reliefs*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_taxreadyreckoner_287.pdf); <http://www.hmrc.gov.uk>; <http://www.dwp.gov.uk/mediacentre/pressreleases/2008/dec/NewBenefitRates.pdf>; <http://www.dvla.gov.uk/media/pdf/leaflets/v149.pdf>; <http://www.local.communities.gov.uk/finance/busrats/bri72008.pdf>; <http://www.scotland.gov.uk/Topics/Government/local-government/17999/11199>; <http://wales.gov.uk/publications/accessinfo/drnewhomepage/busindustrydrs/2008/nondommultiplrates09-10/?lang=cy>; <http://www.cipfastats.net/uploads/MainTables282200824916.pdf>; <http://www.hmrc.gov.uk/budget2008/bn84.pdf>; <http://www.hmrc.gov.uk/pbr2008/pbrn27.pdf>; <http://www.hmrc.gov.uk/pbr2008/pbrn28.pdf>; <http://www.hmrc.gov.uk/pbr2008/pbrn19.pdf>.

For descriptions of the tax and benefit systems, see appendix of S. Adam, J. Browne and C. Heady, *Taxation in the UK*, 2008

(<http://www.ifs.org.uk/mirrleesreview/reports/uktax.pdf>) and C. O’Dea, D. Phillips and A. Vink, *A Survey of the UK Benefit System*, IFS Briefing Note 13, 2007 (<http://www.ifs.org.uk/bns/bn13.pdf>) respectively.

For a summary of the main tax measures introduced in each Budget and Pre-Budget Report since 1979, see http://www.ifs.org.uk/ff/budget_measures.xls.

For estimates of the effects of various illustrative tax changes on government revenues, see HM Treasury, *Tax Ready Reckoner and Tax Reliefs*, November 2008 (http://www.hm-treasury.gov.uk/d/pbr08_taxreadyreckoner_287.pdf).