

## *Policy Briefing*

# Public Sector Finances and the Crisis

Michael P. Devereux, Clemens Fuest, and Giorgia Maffini

*December 2009*

### Executive Summary

This Policy Briefing addresses three related economic questions of central importance to UK government policy.

*1. Why is the public sector deficit in the United Kingdom much higher than in other countries?*

**The reason for the higher UK deficit can be traced back to the 2007 Comprehensive Spending Review. Despite the United Kingdom was running a deficit of 2.4 per cent of GDP after a long period of strong economic growth, large hikes in total spending (of over 5 per cent per year) were planned for the three year horizon.** The Review indicated that this would be financed by an even faster growth in revenues, generated in turn by fast economic growth. The main factor driving today's deficit is that the optimistic scenario for growth projected in 2007 has not materialised. Revenues have fallen, rather than risen. But the higher spending has taken place despite the downturn in the economy.

By contrast, other countries such as Germany had, prior to the crisis, projected much slower growth in spending (approximately 2 per cent per year). Although 2009 revenues in Germany have also fallen, spending has not increased by as much as in the United Kingdom, and consequently the German deficit is much smaller as a proportion of GDP than that of the United Kingdom. In addition, the public sector budget in Germany was balanced before the crisis.

*2. What can be expected to happen to the UK deficit over the next decade?*

In the Fiscal Responsibility Bill, the government aims to halve the deficit by 2014 and to achieve a balanced budget in 2018. These objectives can be attained with relatively mild restraint in public

spending growth if the forecasted quick recovery of 3.25 per cent real GDP growth set out in the Budget 2009 is realised.

But under less optimistic and probably more realistic scenarios, the targets will be met only by cutting the real level of spending, or by raising taxes. At the average forecasted growth rates of independent forecasters, holding constant real public spending between 2011 and 2018 would be insufficient to meet the targets. Additional tax increases or spending cuts of 3 per cent of GDP in 2012 would be necessary. If growth rates were lower – say at 2 per cent per year – then spending cuts or tax rises would have to be above 4 per cent of GDP to meet the targets.

**Overall, unless GDP growth significantly exceeds current independent forecasts, meeting the objectives of the Fiscal Responsibility Bill would require a policy of fiscal austerity which exceeds the policy of fiscal restraint implemented during the era of the Thatcher government.**

### *3. What actions can and should the government take now?*

The government has set out targets for the fiscal deficit only. **We suggest supplementing these by setting out targets for public spending and revenues as a proportion of GDP.** That would give a better indication of whether the government intends to reduce the deficit through spending cuts or tax rises, and it would represent a more credible commitment.

The economy is currently too fragile to implement spending cuts or tax rises immediately. The costs of harming any economic recovery exceed those of delaying a reduction of the deficit, especially if there is a credible strategy for reducing the deficit over the longer term.

**We would recommend that the UK government announces a rise in the standard VAT rate to take effect in 2012.** We made a similar proposal in 2008. This would be a credible strategy for reducing the deficit. At the same time, such an announcement would create an incentive for consumers to bring forward spending before the tax rise takes effect, thus supporting economic recovery.

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# **Public Sector Finances and the Crisis<sup>1</sup>**

**Michael P. Devereux, Clemens Fuest, and Giorgia Maffini**

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This briefing note addresses three related economic questions of central importance to UK government policy.

1. Why is the public sector deficit in the United Kingdom much higher than in other countries?
2. What can be expected to happen to the UK deficit over the next decade?
3. What actions can and should the government take now?

### **1. Why is the public sector deficit in the United Kingdom much higher than in other countries?**

The UK public sector deficit expected for the near future is much higher than deficits in other EU countries. Figure 1 shows the size of the deficits expected for 2009 for the 15 pre-2004 European Union members. The United Kingdom displays the highest projected deficit as a proportion of GDP, slightly above that of Greece and Ireland. The UK ratio of deficit to GDP is just over 12 per cent. By contrast, France has a projected deficit of just over 8 per cent, Italy at around 5 per cent and Germany just over 3 per cent.

In identifying appropriate policies for the United Kingdom, a useful starting point is to understand why the UK position is so much worse than that of other countries. To understand this, we make a detailed comparison with Germany.

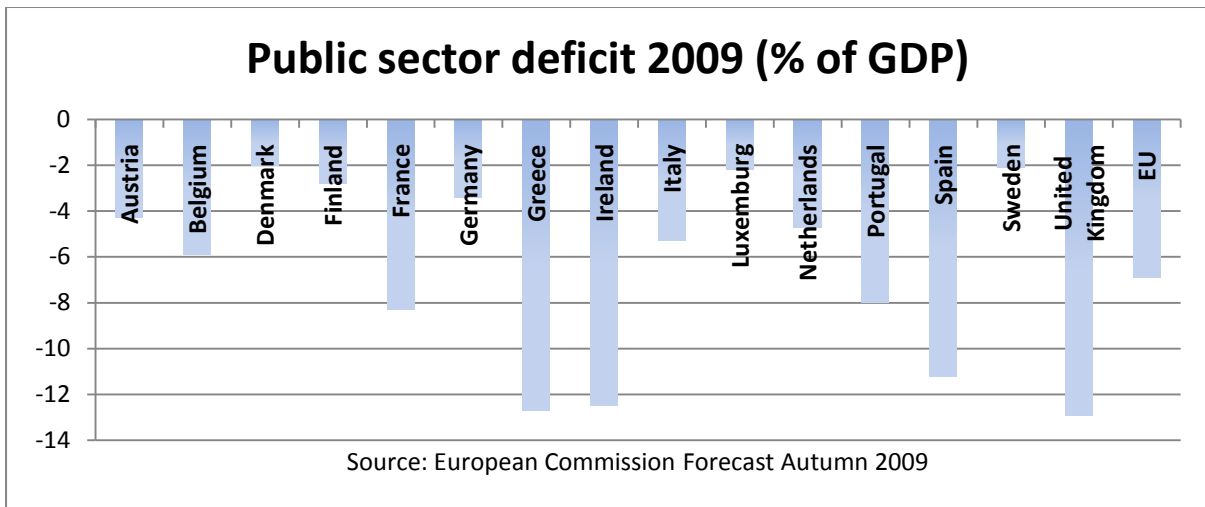
The deficits stem clearly from the financial and economic crisis. But the reason why the United Kingdom is in a weaker position can be traced to the public spending plans set out by the UK government in its 2007 Comprehensive Spending Review before the crisis materialised to its full extent. This is demonstrated in Figure 2, which shows the path of public spending and revenues as

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<sup>1</sup> The views expressed in this note are those of the authors, and not the Centre for Business Taxation, which has no corporate views. The Centre is financially supported by business and by the Economic and Social Research Council; for further details, see <http://www.sbs.ox.ac.uk/centres/tax/about/Pages/Funding.aspx>.

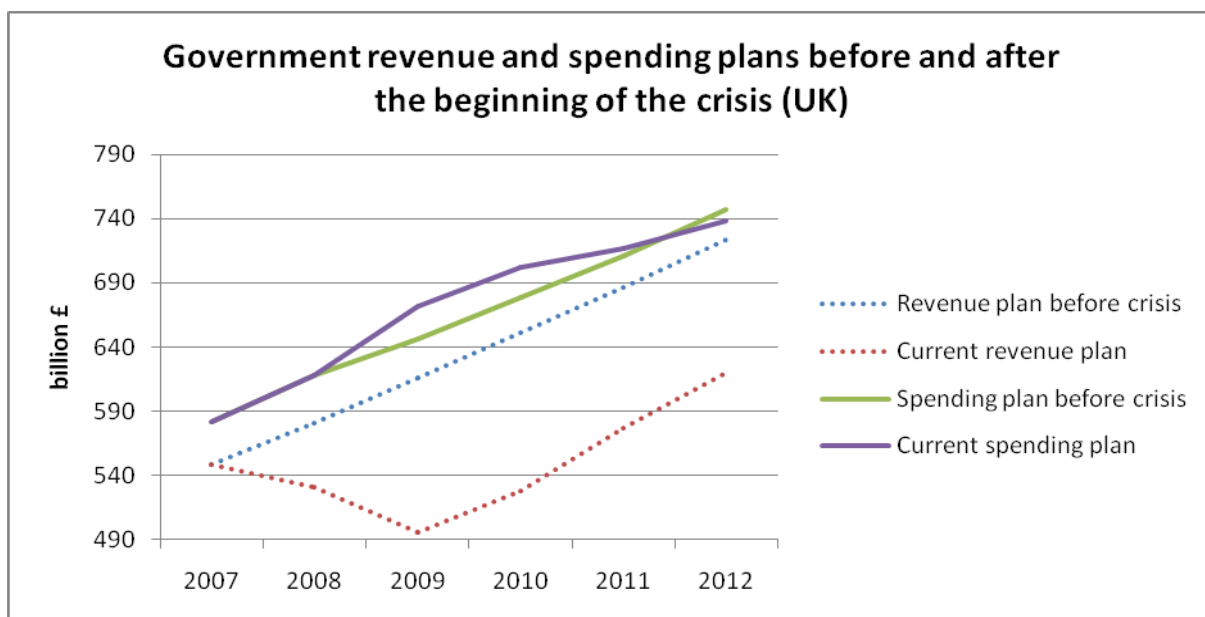
projected in the 2007 review, and how they turned out, with the government's current forecasts beyond 2009.

**Figure 1**



In the 2007 Comprehensive Spending Review, public expenditure was projected to grow strongly from £582 billion in 2007-8 to £678 billion in 2010-11 (solid green line); an average increase of 5.2 per cent per year in nominal terms. This was matched by a projected average annual increase in nominal GDP of 4.8 per cent and in government revenues of 5.9 per cent (blue dotted line). The net effect of these increases was intended to lower the deficit (defined throughout as public sector net borrowing) from 2.4 per cent of GDP to 1.7 per cent of GDP. The projections beyond 2009 reflect an optimistic view that revenues will recover strongly. We return to this below.

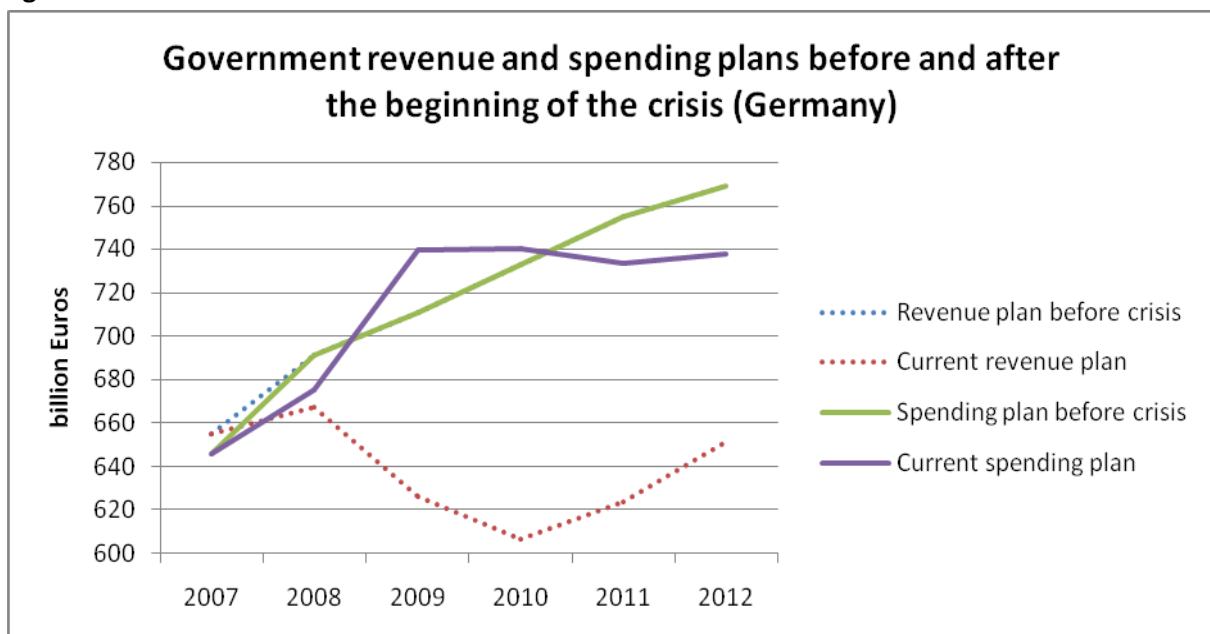
**Figure 2**



The current deficit reflects the optimistic position taken by the government in 2007. As shown in Figure 2, revenues have declined substantially since 2007. However, public spending has been slightly higher than the levels projected in 2007, despite the fact that, in effect, the government could not afford such levels of spending. Had the government projected more modest spending increases in 2007, the deficit would now be smaller. Of course, the beginning of a crisis would have been a bad time for a policy shift to restraint in public spending. The opportunity to do so was missed during the boom years before 2007.

Figure 3 presents an equivalent figure for Germany.<sup>2</sup> From 2008 onwards, expenditure and revenues were projected to be equal: this is why the blue dotted line (planned revenues) and the solid green line (planned spending) coincide from 2008 onwards. At first glance, this development of spending and revenue looks similar to that of the United Kingdom.

**Figure 3**



But there are two differences:

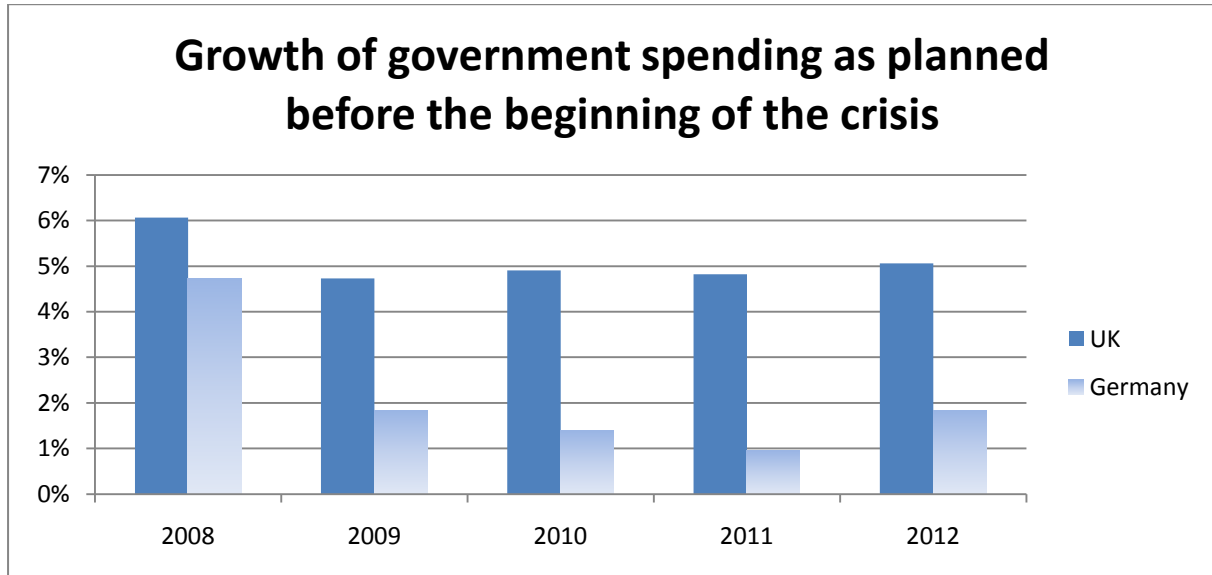
- The initial budgetary position was different as the German public sector budget was balanced in 2007 whilst the UK deficit was 2.4 per cent of GDP.
- In Germany, expected revenue growth had been smaller in previous years. As a result, revenue and expenditure growth planned before the beginning of the crisis was also smaller. Between 2009 and 2012 revenue was predicted to grow at a rate of only slightly above 2 per cent per year.

To make the comparisons more explicit, Figure 4 presents the annual spending increases planned in 2007, before the true extent of the crisis became apparent.

<sup>2</sup> Source: Entwicklung der öffentlichen Haushalte bis 2013, BMF-IA4, 1. Juli 2009. For the planning before crisis: projection based on Finanzplan Bund 2008.

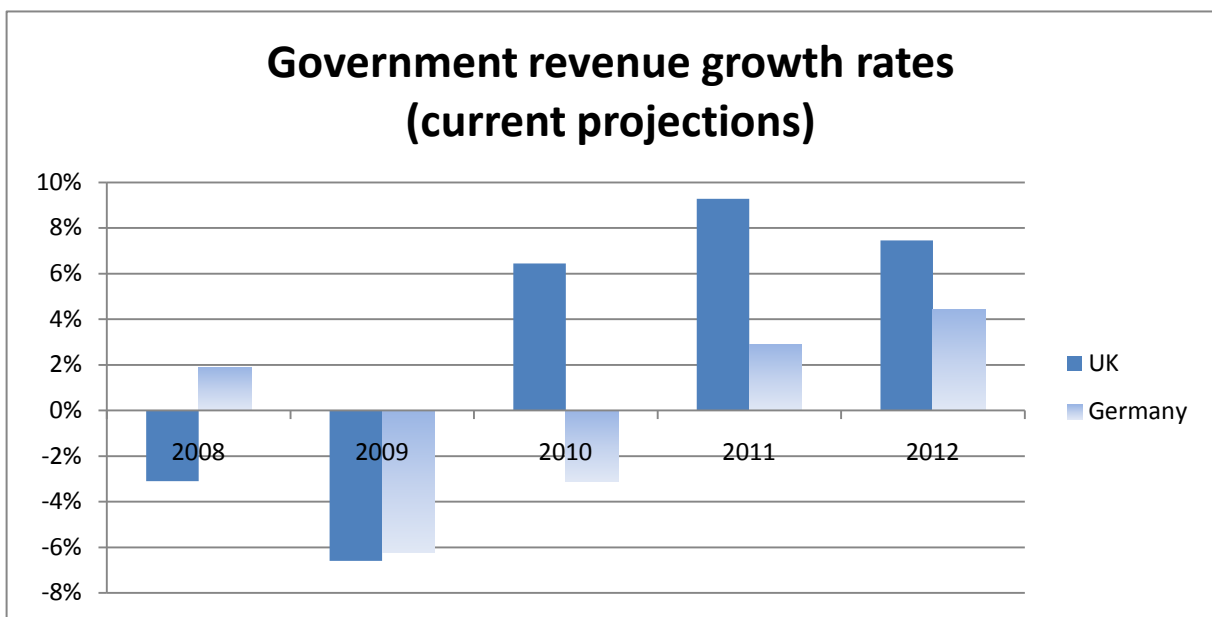
As noted above, UK spending was projected to grow at around 4.5 to 6 per cent per year. By contrast, after an initial fairly steep rise in 2008, the German projection was for a much lower growth rate of between 1 and 2 per cent.

**Figure 4**



By contrast, the reductions in revenues in each country were comparable. Figure 5 shows the outturn year-on-year change in revenues, with a projection beyond 2009. Although revenues fell in the United Kingdom in 2008, indicating that the British economy was hit rather earlier than Germany, the projected percentage fall in 2009 is remarkably similar in the two countries.

**Figure 5**



In sum, paradoxically the very large fiscal deficit in the United Kingdom is due to the UK success in the decade before. Rapid growth over the preceding decade led to pro-cyclical spending and optimistic forecasts of continued growth over the period 2007-8 to 2010-11. These in turn led to large increases in planned expenditure. By contrast, Germany planned much smaller increases in spending over this time period. In outturn, the expenditure in both countries rose slightly more than projected. The outturn revenue growth rates were also similar, apart from the fact that Germany had a revenue increase in 2008 whereas revenue was already declining in the United Kingdom.

## 2. What can be expected to happen to the deficit over the next decade?

The previous section set out reasons why the United Kingdom has currently such a high fiscal deficit. Before addressing how the deficit should be tackled, it is worth identifying the likely development of the deficit over the next decade. The key question is the extent to which the excessive deficit can ultimately be solved by economic growth. Government revenues tend to rise with GDP or more rapidly than GDP, especially in the recovery after a recession. If expenditure is not allowed to increase as rapidly as GDP (so that the ratio to GDP falls over time) then it is at least possible that the deficit could be closed without the need for significant cuts in expenditure.

We consider three alternative scenarios characterised by different assumptions on the real GDP growth rate:

- a) High growth rate of 3.25 per cent from 2011 (based on the government's forecast in Budget 2009),
- b) Medium growth rate of 2.7 per cent from 2013 (based on an average of independent forecasters as cited by HM Treasury in Forecast for the UK Economy 18/11/09<sup>3</sup>),
- c) Lower growth rate of 2 per cent from 2014 onwards.

These assumed growth rates are summarised in Figure 6.

For each of the scenarios, we suppose that the real rate of growth of public spending is held constant from 2012 onwards. The implied rate of growth of spending as a proportion of GDP is shown in Figure 7.<sup>4</sup> We consider that it would be unrealistic to assume that public spending could be cut consistently in real terms. As evidence for this, consider Figure 8, which shows real growth rates in public spending in the United Kingdom since 1978-9. "Real total managed expenditure" is total government spending while "real primary expenditure" excludes interest payments. Each of these measures of spending has fallen in real terms in only 4 years in the last three decades. The Conservative governments of Margaret Thatcher and John Major did preside over periods when real

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<sup>3</sup> [http://www.hm-treasury.gov.uk/data\\_forecasts\\_index.htm](http://www.hm-treasury.gov.uk/data_forecasts_index.htm).

<sup>4</sup> We assume that the elasticity of revenue with respect to GDP is equal to 1.1. Moreover, we assume that there are losses from financial sector interventions amounting to 3.5% of GDP in 2008 (see Budget 2009 Report, p.35), which are realized in 2010.

spending was approximately constant: in the mid-1980s and mid-1990s respectively. But consistent real reductions in expenditure would be unprecedented in recent history.

Figure 6

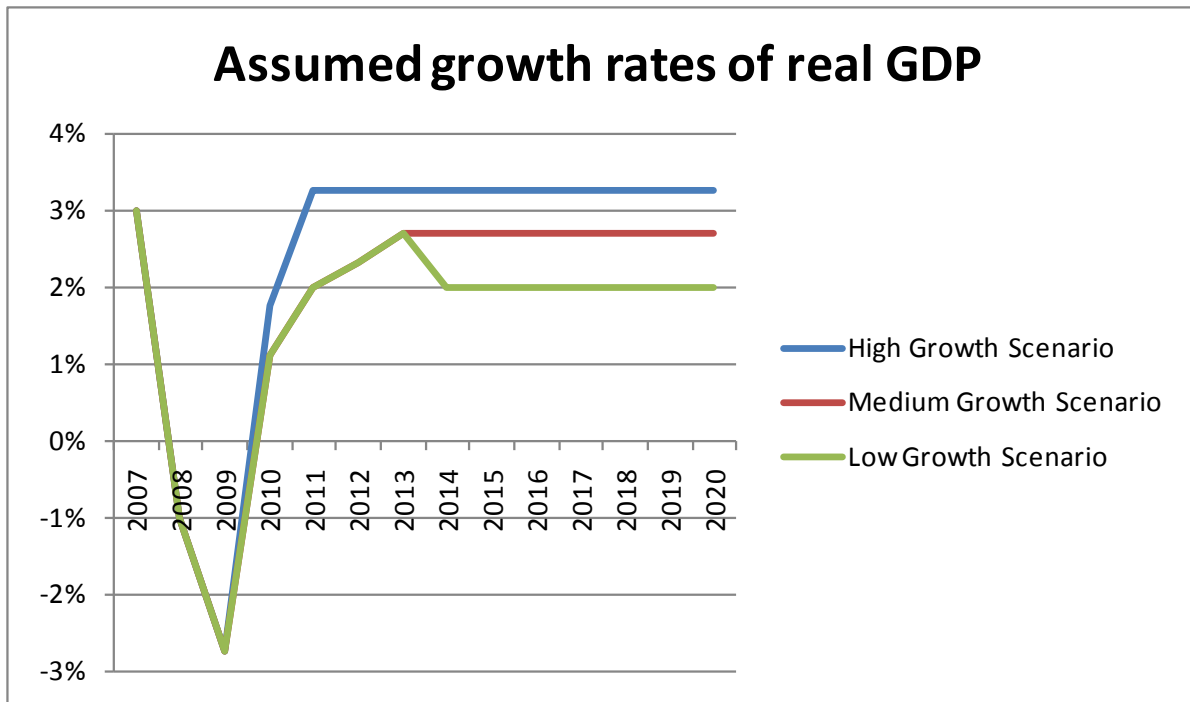
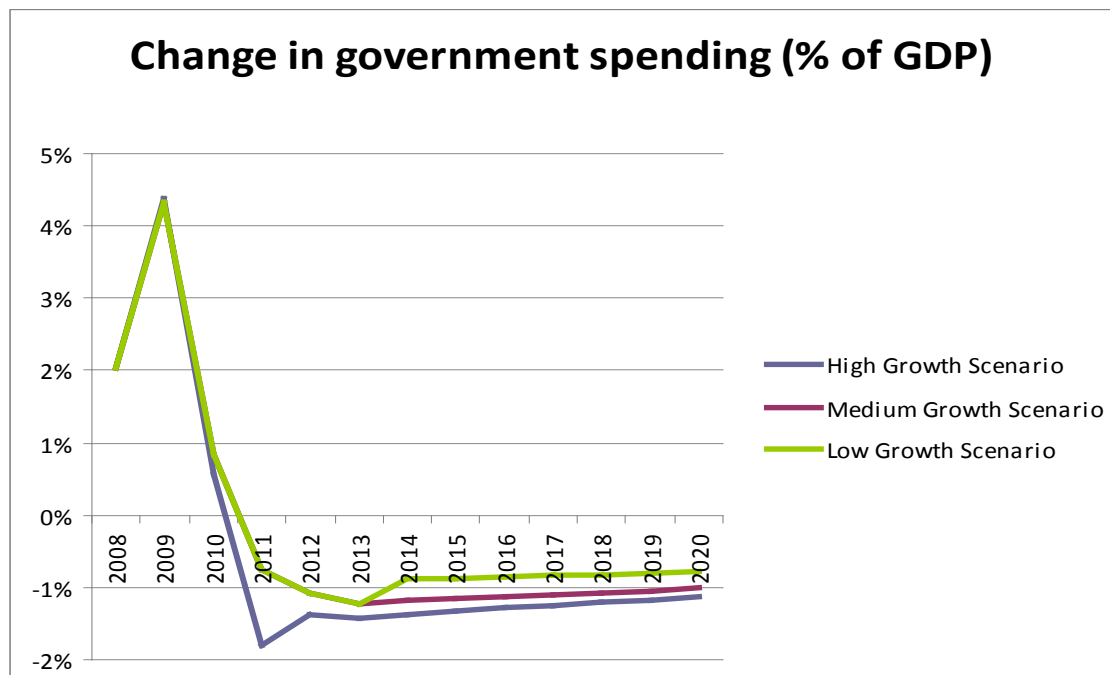
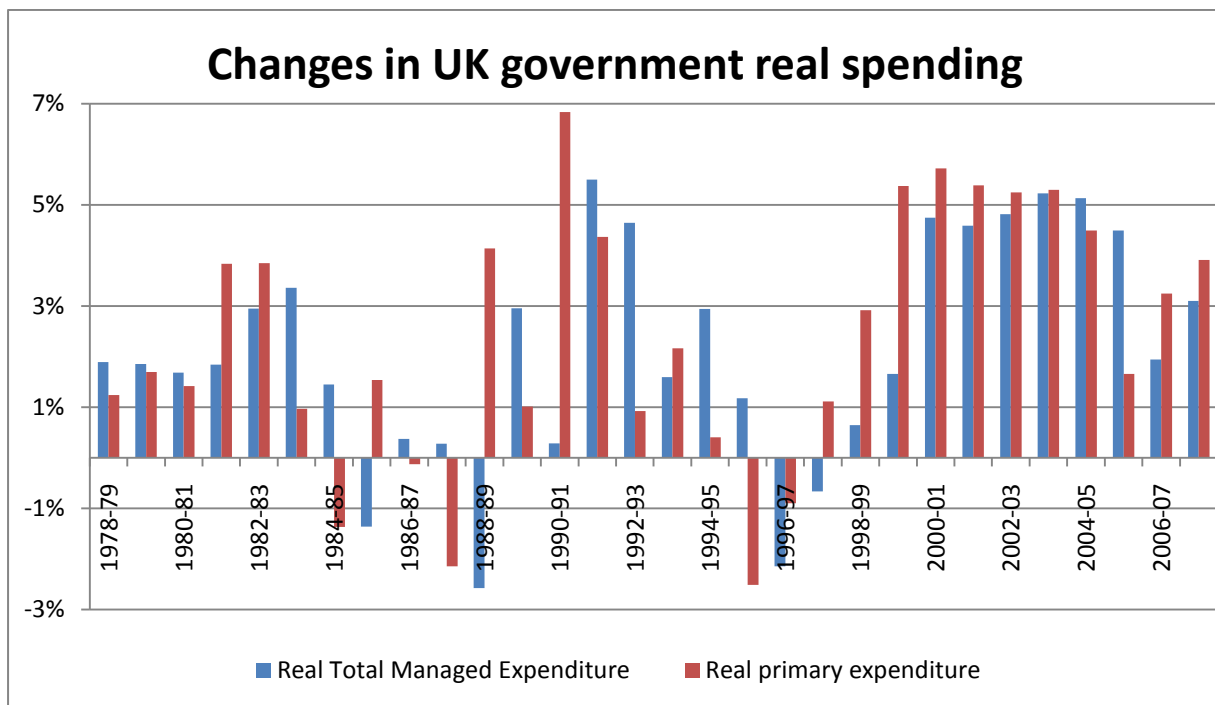


Figure 7



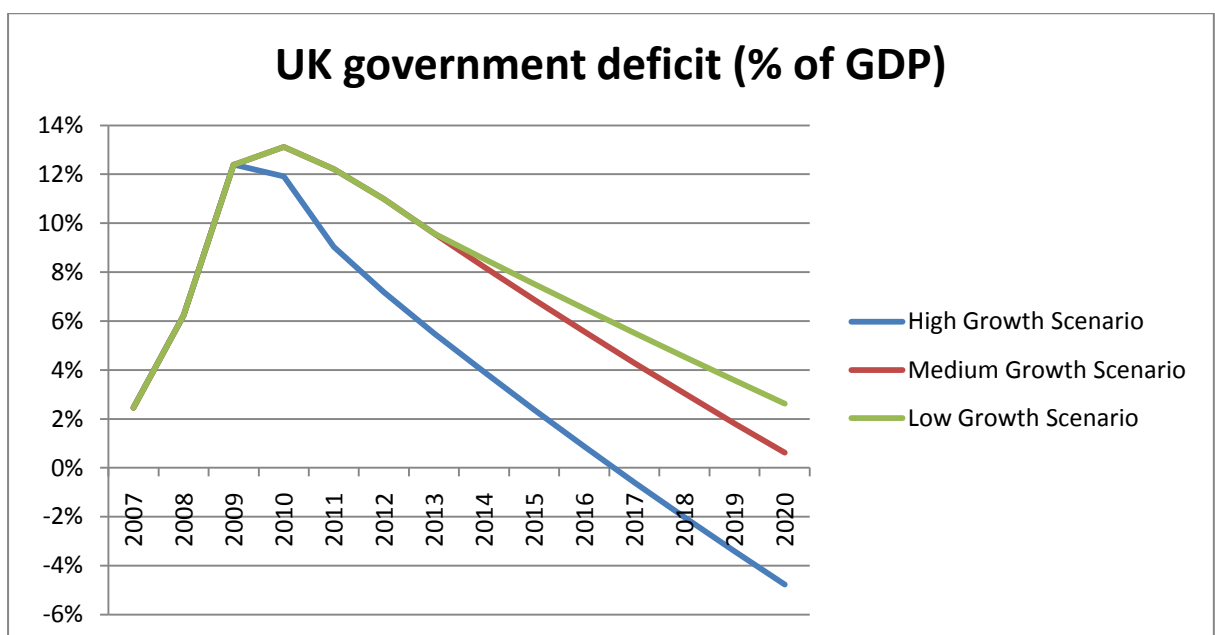
**Figure 8**



The path of the fiscal deficit in each of the three scenarios described above is shown in Figure 9.

In the optimistic scenario (a), the deficit would be reduced in line with the recent Fiscal Responsibility Bill. The deficit would be reduced to around 4 per cent of GDP by 2014-5, and there would be a small surplus in 2017-8.

**Figure 9**



The medium growth rate scenario is instead based on an average of independent GDP growth and inflation projections. As shown in Figure 6, these projections are for real growth rates of 2.7 per cent from 2013; perhaps still a relatively optimistic forecast. This scenario shows that even a slightly lower growth rate would have a significant effect on the path of the deficit. The deficit would still be above 8 per cent of GDP in 2014-5, and there would still be a fiscal deficit in 2020-1. This is not consistent with the government's plans as set out in the Fiscal Responsibility Bill.

The path of the deficit is of course worse under the lower growth scenario, but perhaps surprisingly, there is not too much difference from the medium growth case. This happens because the two scenarios only differ from 2014.

In sum, the objectives of the Fiscal Responsibility Bill could be achieved if growth rates match the government's optimistic forecasts, of around 3.25 per cent, and real spending levels are held constant. This growth rate would even permit spending to rise slightly in real terms. Given the average of independent forecasts or a lower growth rate, however, it would not be possible to maintain current spending levels in real terms while meeting the objectives for the fiscal deficit. In that case, it would be necessary at some point to raise taxes.

### **3 What actions can and should the government take now?**

#### **a. The costs of maintaining a high fiscal deficit**

What are the costs of maintaining such high levels of debt? The most obvious cost is that of servicing the debt through interest payments. At the end of 2009, the yields on 10 year bonds issued by the UK government are around 3.8 per cent. Yields on shorter-dated bonds tend to be lower than this, although payments on older debt tend to be higher. In 2008-9, interest payments were about 5 per cent of government debt. The interest on newly issued debt is currently lower, but this may change quickly. At a deficit of around 12 per cent of GDP, and if the level of interest rates for newly issued debt is equal to, say 4 per cent, this implies that the additional interest costs associated with one year's deficit are likely to be of the order of 0.5 per cent of GDP. These costs clearly cumulate over time.

The cost will rise as interest rates are likely to rise above their current low levels as the quantitative easing programme is withdrawn. The interest rate facing the UK government also depends on the market perception of the risk of its debt, which in turn depends on the size of the outstanding debt as a proportion of GDP, but also on the rate at which that debt is increasing, and on the state and prospects of the economy. It also depends on the state of the guarantees for bank debt which could in principle result in large liabilities, but which are not reflected in the measures of the current stock of public debt.

One way of assessing that perceived risk is to look at the spreads of credit default swaps (CDS) on sovereign debt (see the case of the United Kingdom and Germany in Figure 10). This provides an approximate guide to the value of the risk premium demanded on government bonds, though it is by no means a perfect measure. The current UK government 10 year CDS spread is around 0.8 per cent

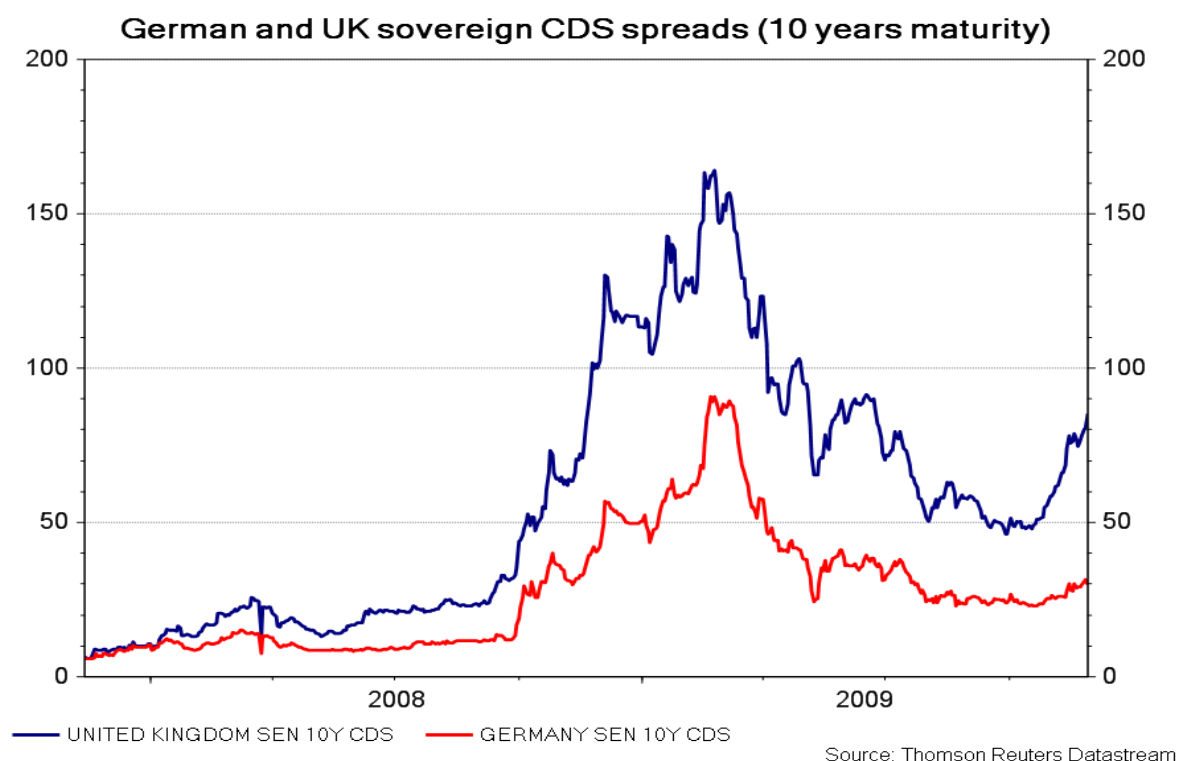
(0.7 per cent for the 5 year UK government bonds), implying that due to risk, the interest rates faced by the government are 0.8 per cent higher.

The cost to the government in terms of higher interest payments due to the risk reflected in these CDS spreads is, however, modest relative to the overall cost of servicing the debt, and is already included in the interest costs described above. The cost to governments of the risk premia associated with these CDS spreads apply only to new debt, and not to the stock of debt. New debt includes both new borrowing, and the replacement of debt which matures.

Of course, the longer that these risk premia are maintained, the more their cost will build up as more of the stock of debt is issued at relatively high risk premia. With the exception of Greece and Ireland, in November 2009, the spreads of CDS on UK government bonds have widened more than for any other country tracked by the *iTraxx SovX index*. To reduce these risk premia in the short, medium, and long term, it is necessary for governments to demonstrate that they have credible plans to reduce the deficits in the medium term, thereby reducing the possibility of eventual default.

One option to reduce the deficit would be simply to point to the type of calculations set out above: with economic growth and limits on expenditure expansion, deficits will eventually be closed. But other policies may also be required, as discussed in the next section.

**Figure 10**



**b. What should be targeted?**

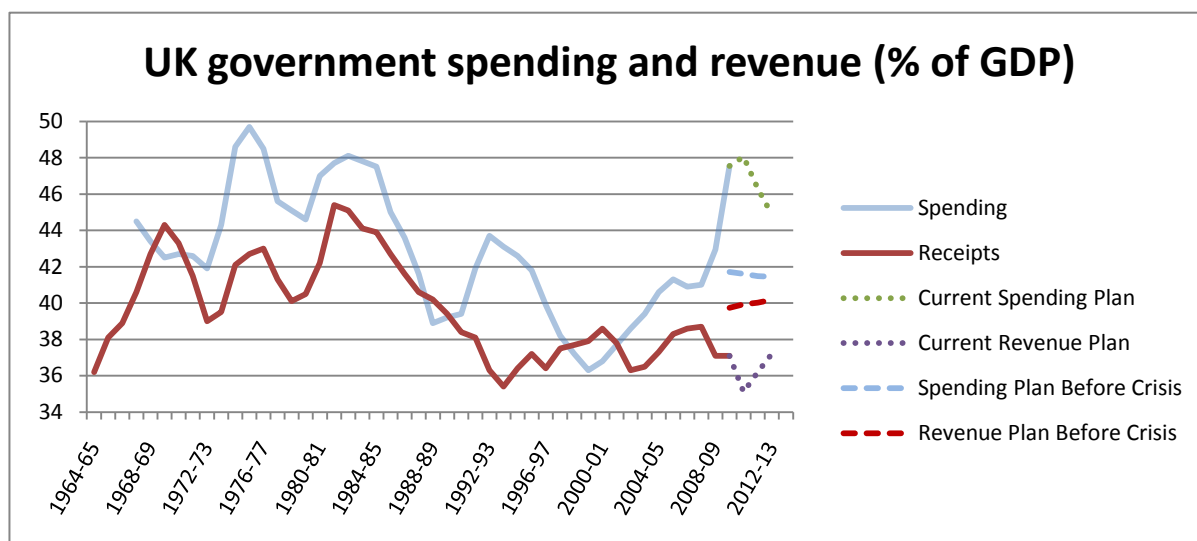
In its Fiscal Responsibility Bill, the government has set out targets for cutting the fiscal deficit over the next decade. Beyond 2012, the composition of the budget tightening in terms of tax increases and (or) spending cuts, however, has not been specified.

Figure 11 gives a long term perspective of UK government spending and revenues as a proportion of GDP, including a projection until 2012-13. The current level of spending is high, but not unprecedented: it reached such levels following the oil crisis in 1973-4, and remained there for some time. It was eventually reduced in the 1980s as the Thatcher government held spending approximately constant in real terms for several years. A further sharp fall took place under the Major government in the first half of the 1990s, and initially continued under the Labour government after 1997. As a proportion of GDP, the rise in spending under the Labour government until 2008 was relatively modest, with the ratio standing at 41 per cent until the crisis of 2008-9.

Revenues have generally moved in line with spending, though have typically been lower. Since the early 1990s, revenues have been between 36 per cent and 38 per cent of GDP, and have only fallen a little during the recent crisis.

In our view, the government should set a target for the ratio of spending and tax revenues as a proportion of GDP. Realistically, the spending target should match a feasible level of revenues. If we take the average ratio of revenues to GDP over the last twenty years, the target would need to be less than 40 per cent - and probably as low as 38 per cent. Such a reduction in spending would not be unprecedented. The ratio of spending to GDP now is comparable to that in 1982-3, at around 48 per cent. The then government reduced the ratio to 39 per cent within around 7 years by holding spending constant in real terms.

**Figure 11**



Such a policy would, though, require almost all of the adjustment to come through a reduction in spending. A more credible strategy would be one in which part of the adjustment also comes through higher taxes. For example, a target of between 40 per cent and 42 per cent for both spending and revenues would require a more modest reduction in spending, though also a rise in revenues.

### c. Options for reducing deficits

The most obvious problem facing the government in trying to reduce the deficit – by cutting spending or raising taxes - is that it may generate a contractionary effect reducing or even overturning any economic recovery. Given the depth of the recession, the government should be extremely cautious in raising taxes or cutting expenditure in the short run. The costs associated with a delay in such policies are relatively small compared with the possible costs of restricting economic growth.

In addition, there are benefits of waiting until more information is available on the extent of recovery and the rate of economic growth. If growth does indeed meet the government's forecasts, then the targets for the deficit can be met without cutting the real value of spending.

But there is another important timing issue. Most economic theory is based on the notion that economic agents are forward-looking, and that their actions now depend on how they expect income and other economically relevant variables to develop over time.

Consider, for example, the possibility that a government may try to develop a credible strategy for reducing its deficit by announcing a rise in income tax. If implemented at once, then the rise would be expected to generate a reduction in private spending, which would be a negative shock to the economy. Now compare that option with an announcement that the rise in income tax will take effect in one year's time. In this case, the government would be delaying the reduction of the deficit in the hope of allowing the economy to recover further before implementing the change. The problem with this is that individuals who face a future rise in their income tax would be likely to reduce their spending now. The reduction may not be as large as if the income tax rise were implemented immediately, but it might still be quite significant.

There is also the possibility that individuals would seek to bring income forward from the following year, in order to benefit for the lower tax rate while it lasts. This could provide a stimulus to the economy. But shifting income across years is generally much harder than shifting consumption. So it seems implausible that this effect could outweigh the effects on the economy of the reduced spending. For this reason, the announcement of a future income tax rise may not be an attractive alternative to the announcement of an immediate income tax rise. A similar argument would apply to many other ways in which governments could seek to reduce their deficits.

However, there are exceptions to this. The clearest exception concerns taxes on consumption, such as VAT and excise duties. Suppose the government announced that the rate of VAT would rise in one year's time. This could provide an important fiscal stimulus, since there would be a clear incentive to bring forward spending to take advantage of the lower VAT rate before it was increased. This would provide an immediate fiscal stimulus, despite raising additional revenue in the medium term. An additional advantage of changing the rate of VAT is that – unlike the case of income tax and corporation tax, for example – such a tax reform should not induce individuals or corporations to move abroad. This is because the tax is primarily determined by the location of the consumer.

Announcing a future rise in the VAT rate mirrors the fiscal stimulus measure announced by the UK government in December 2008 when the VAT rate was cut from 17.5 per cent to 15 per cent for a fixed period of about one year. Arguably the most effective element of this stimulus was its fixed

time period. A permanent reduction in the VAT rate may not have had a large effect at the point at which the country entered a recession. But the fact that the rate will increase again is likely to have had a more significant impact on private spending in 2009.

A final Figure, Figure 12, revisits the path of the deficit (comparable to Figure 9) if a rise in VAT equal to 1.5 per cent of GDP were implemented in 2012. The Figure does not take into account any behavioural change induced by the announcement of the reform, or the reform itself. However, this relatively modest tax rise – combined with holding spending constant – moves the path of the deficit closer to the targets of the Fiscal Responsibility Bill. Achieving these targets would require a tax increase in 2012 of 3 per cent of GDP in the medium growth scenario and a tax increase of more than 4 per cent of GDP in the low growth scenario.

**Figure 12**

