

# **Binding the Hands of Government – a credible fiscal rule for the UK**

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by

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## Executive summary

- No fiscal rule can predict the future or guarantee sustainability of the public finances. However, they remain a useful tool to counter the myopic priorities of politicians and voters.
- From around 2002 on Britain stopped reducing its debt and started running deficits. This left the country ill prepared for the arrival of the financial crisis.
- The Golden Rule, Britain's first fiscal rule, failed to bring the budget back into surplus. The regime left no room for error, and gave politicians too much flexibility. Spending plans were based on over-optimistic forecasts.
- We should adopt a less flexible and more credible fiscal rule. We do not need discretionary fiscal policy to 'manage' the economy. Insofar as demand is actively managed, this can be done through monetary policy.
- Britain should adopt a fiscal rule similar to Switzerland's debt brake. We should balance the structural budget every year, rather than over the cycle.
- The rule should be backwards looking. Forecasts that prove over-optimistic should be compensated for by greater austerity in future years.

## Introduction

The origin of fiscal rules lies in the economic difficulties of the 1970s. As growth in the western economies slowed, governments tried to avoid painful structural reform. Increasingly desperate fiscal and monetary stimulus, however, led only to a decade of unemployment and inflation. The post war downward trend in public debt began to reverse. Between the mid 1970s and the mid 1990s ratio of gross debt to GDP nearly doubled in the OECD from around 40 percent to around 75 per cent (Wren-Lewis, 2009).

In response, control of monetary policy was turned over to rules and independent central banks. Similarly, discretion over fiscal policy was constrained. Governments promised to make their budgets balance through new fiscal rules.

While fiscal rules were rare at the national level in the early 1990s, by the end of the decade over 80 countries had their own rules. Over time, those rules became more sophisticated and complex. According to the IMF, in the early 1990s, countries with fiscal rules had on average 1.5 numerical rules. By 2009, the average was closer to 2.5. While fiscal rules are not a silver bullet, they are '[empirically] associated with improved fiscal performance', in particular during large fiscal adjustments (IMF, 2009).

The purpose of a fiscal rule is to defend the long-term interests of the nation against the short-term temptations of politicians and voters. By setting clear guidelines, they increase the chance that governments will make responsible decisions. The challenge in designing an effective rule is to balance its simplicity and credibility against the flexibility needed to respond to short-term events.

Many have argued that the danger of debt is overstated and that the government should instead focus on growth and unemployment. 'Look after unemployment', economist John Maynard Keynes once said in a quote that sums up the attitude, 'and the budget will take care of itself' (Skidelsky, 2011).

Of course, some deficits can be justified. It is reasonable to spread the cost of, for example, a major war over more than one generation. Nevertheless, there are real costs to debt:

1. Debt is a burden on future taxpayers. One argument suggests that debt is not a burden on the economy, as we 'owe it to ourselves'. This is misleading at best. A significant proportion of debt is owed to other countries. Moreover, repaying debt involves higher tax rates, which damage the economy. Finally, while future taxpayers and holders of government debt overlap, they remain distinct groups – debt is owed to taxpayers in general by the holders of debt.

2. Reduced flexibility to respond to emergencies. The higher the pre-existing debt, the less the flexibility a country has to respond to future crises and emergencies. Research by economists Reinhart and Rogoff suggests that debt much beyond 90% of GDP harms an economy (Reinhart et al., 2010), and that a single banking crisis can cause debt to spike by 86% of its pre-existing level in the following three years (Reinhart et al., 2009, p. xxxii). Countries that have maintained a good grasp of their public finances such as Australia, Canada and South Korea had much more 'fiscal space' at the onset of the 2008 crisis than those that did not, such as Greece, Italy and Japan (Zandi et al., 2011).

3. Greater risk of default. At some limit, taxpayers will always prefer to default on their nation's debts than face ever-increased taxes. Suspicion that a country might be near the limit of its ability to repay can increase the risk premium on a nation's debt, leading to a vicious cycle of increasing interest payments, higher deficits, higher taxes and greater public anger. Throughout history, debt crises, such as the current eurozone troubles, the Asian bubble in the late 1990s, or the Mexican Peso crisis have appeared with little warning.

4. Lower growth. High interest rates, in turn, make investment more expensive, 'crowding' it out – or they raise the real exchange rate. Countries with high public debts seem to invest less, and eventually this makes their workers less productive. A 2010 paper for the IMF by economists Manmohan S. Kumar and Jaejoon Woo discovered every 10% increase in the debt-to-GDP ratio lead to 0.2% slowdown in the growth rate with, again, particular bad effects above 90% (Kumar et al., 2010).

5. Unsustainable public spending. It is far easier to add spending than to cut it back. If government spending is unsustainably financed through borrowing, some of the fiscal correction will come in the form of tax increases, growing the size of the state. Over the course of the application of the Golden Rule, the size of the UK government spending grew from roughly 40% to 50% of GDP. The deficit to which this spending gave rise is now being partly closed through tax increases. There is also less political accountability if governments finance spending through borrowing as spending is being financed by burdens being imposed on future generations.

6. Risk of inflation. In theory, a government with its own currency can partially default on its debts by inflating it away. In practice this is difficult to do deliberately. Much of public debt is short term, rolled over every few years. A government that tries to inflate its debt away will soon find itself facing higher interest rates – and will do so for several years after, as it tries to regain credibility for price stability. However, running deficits can still lead to accidental increases in inflation, if not countered by the central bank. The deficits of the 1970s arguably over-stimulated the economy, contributing to the decade's problem with inflation.

An argument against fiscal rules suggests that running greater debt today allows us to invest more. Borrowing to invest makes sense, it is argued. In practice, investment is a small proportion of Government spending, and generally drops during a recession. As a rule, investment rarely improves productivity enough to cover its costs (Fatas, 2005).

A final argument against fiscal rules is that even if a good idea in theory, they fail to work in practice. Simple fiscal rules, it is argued, do not provide enough flexibility to manage the economy through a downturn. On the other hand, complex rules provide too much ambiguity for politicians to manipulate the figures. The first generation of fiscal rules clearly failed to prevent the current debt crisis. Despite Britain's Golden Rule, debt is now projected to pass 70% of GDP by 2015. The eurozone's Growth and Stability Pact has delivered neither. The US debt ceiling crisis in the summer of 2011 did not seem to represent policy making at its finest.

The rest of the paper will be dedicated to addressing this objection. How can we combine enough simplicity to keep a rule credible with the flexibility necessary to manage the economy? Did the Golden Rule fail because no fiscal rule could have worked, or was there something flawed in its design?

We will begin by examining taxation and government spending and then looking at Britain's last set of fiscal rules in greater detail. Finally, we will look at how we could do better in future.

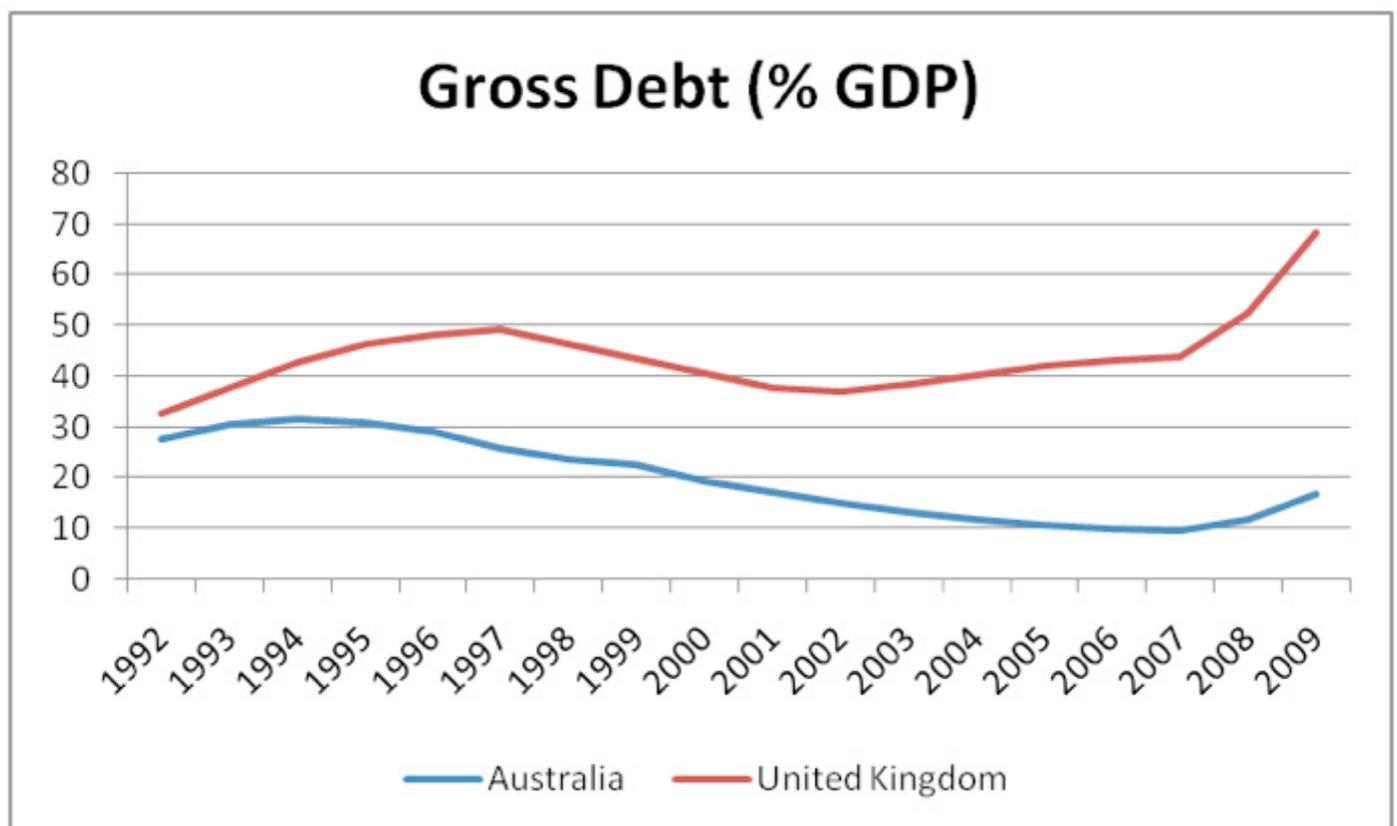
## Tax and spending 1997 to 2010

In 2008, at the start of the financial crisis, the government was forced to formally abandon its fiscal rules. The UK found itself with one of the highest deficits in the G20, at 10% of GDP.

By contrast, on the other side of the world, Australia could hardly have been in a better position. On the eve of the financial crisis in 2007, Australia had a debt: GDP ratio of just 9%, compared with Britain's 44% (IMF, 2012).

The difference need not have been this stark. Fifteen years earlier the economies had been in broadly similar positions. In 1992, Australia's debt was 27% of GDP, while the United Kingdom's was 32% (IMF, 2012).

Over the next fifteen years, the UK ran surpluses in just three years: 1999, 2000 and 2001. Meanwhile, Australia ran surpluses every year between 1997 and 2007. If Britain could have matched Australia's fiscal path it seems, we would have been in a far better position to ride out the crisis (see Figure 1).

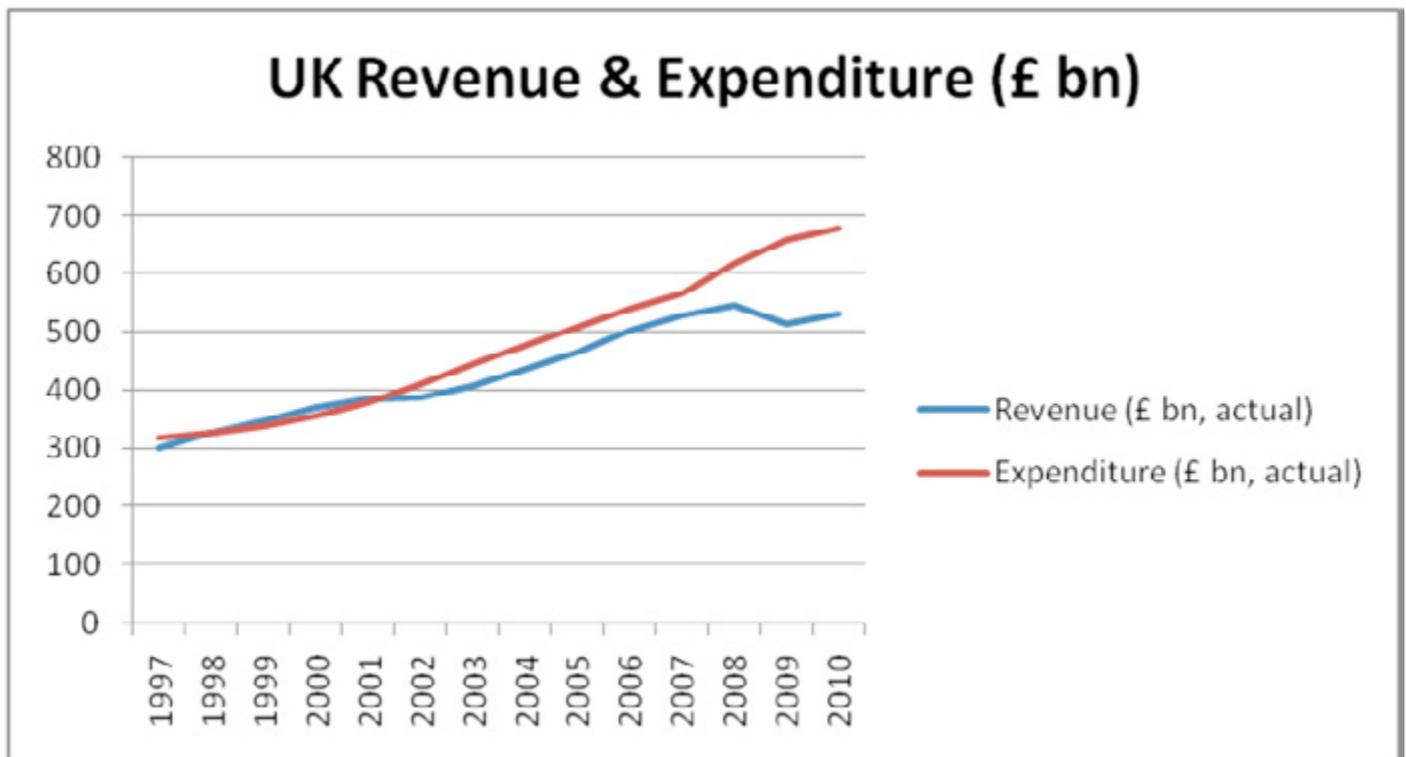


**Figure 1: Debt to GDP ratio for Australia and the UK**

Source: IMF, 2012

It is sometimes argued that the sole reason for the failure of the Golden Rule was the arrival of the financial crisis. This worldwide storm, it is argued, was impossible to foresee. Our normal models assume that tomorrow will be much like today, with minor fluctuations over the course of the economic cycle. By contrast, the financial crisis was what Nassim Nicholas Taleb calls a 'black swan', a low probability event with extreme impact.

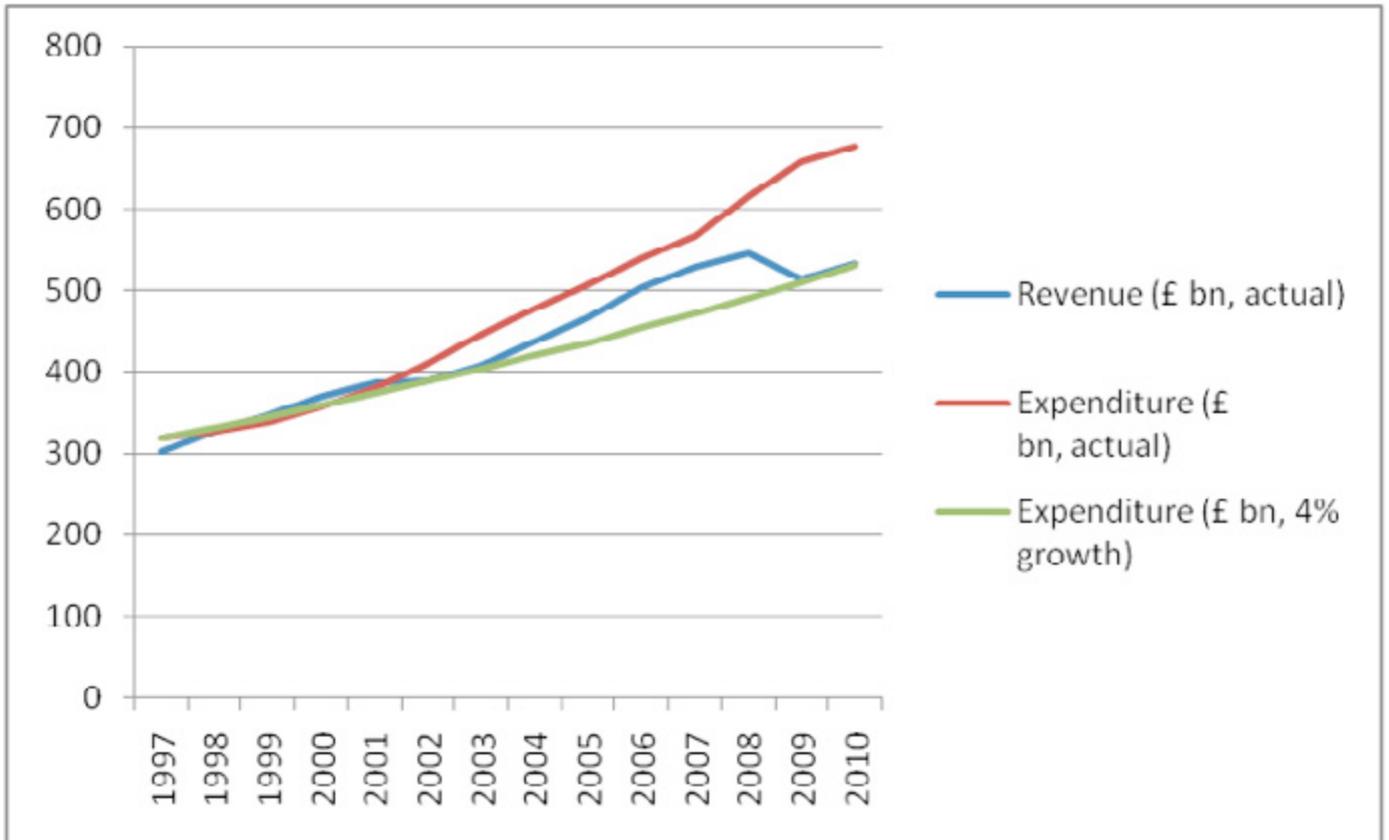
There are two problems with this story. Firstly, the ultimate purpose of a fiscal regime is to ensure enough room for error to survive an extreme event. Fiscal rules that only work in a benign environment are of little use. More importantly, however, one reason that Britain lacked this room for manoeuvre was that our deficit began to grow before the financial crisis as is shown in Figure 2.



**Figure 2: Government expenditure and revenue 1997-2010**

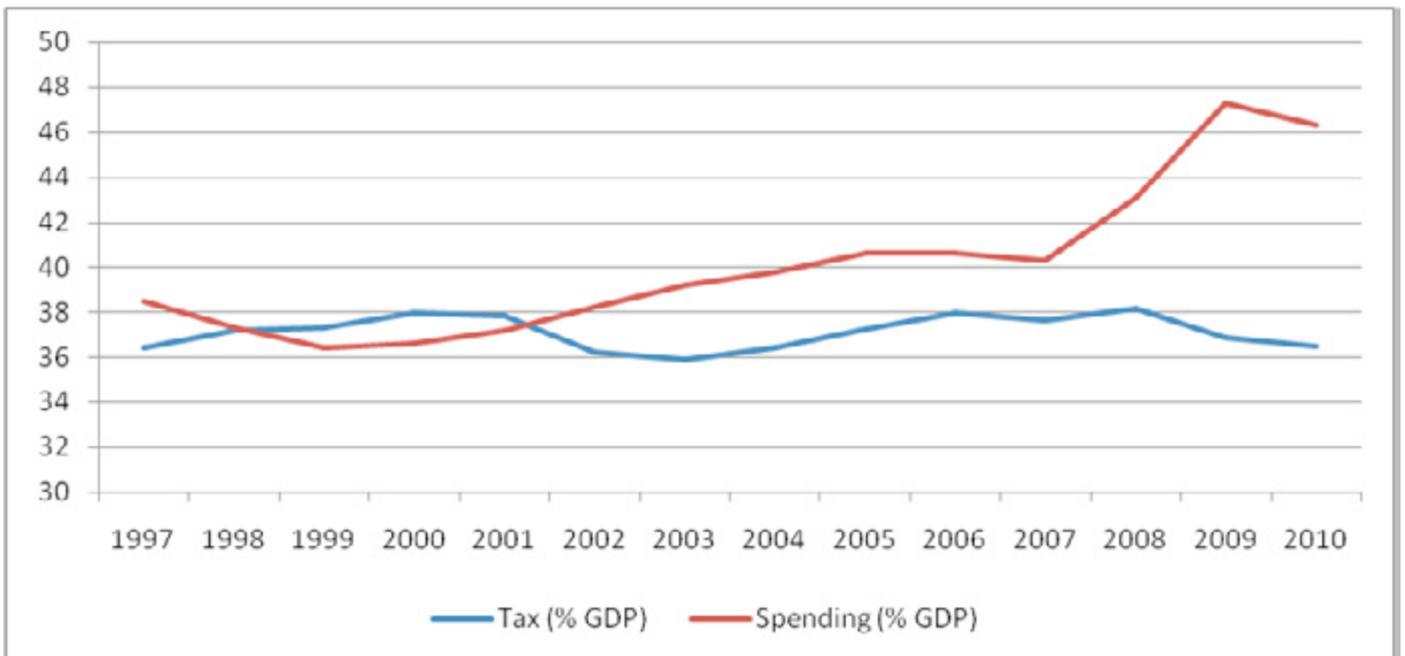
Source: IMF, 2012

As the graph makes clear, the current deficit was formed in two stages. From around 2002 a persistent gap opened between revenue and expenditure which the Treasury did little to close. Then in 2008, the arrival of the financial crisis led to much lower tax revenue while spending continued to grow. This gap was not inevitable. On average, expenditure has grown 6% in nominal terms since 1997. By contrast, if it had grown at no more than 4%, then the UK's budget would now be almost perfectly in balance – even after the financial crash (see Figure 3).



**Figure 3: Hypothetical path of expenditure and revenue**  
Based on: IMF, 2012

The deficit in the public finances came more from decisions on spending than tax. Throughout the period from 1997 to 2008, tax revenues were around 37% of GDP. After 2001 however, spending was consistently higher than this:



**Figure 4: Government spending and tax revenues (% GDP)**  
Source: IMF, 2012

Indeed, if the government had simply had a spending rule rather than a fiscal rule – for example for spending to be no more than 37% of GDP all would have been well. This might have made sense. Government spending tends to be ‘stickier’ and harder to adjust than taxes for both institutional and political reasons. Most budget problems arise due to spending increases that are difficult to reverse. A spending rule would have ensured that spending remained sustainable, while allowing taxes to fluctuate to deal with short-term recessions. It would, however, have struggled to provide enough flexibility to cope with cyclical changes in spending on welfare.

The Treasury, however, chose a far more complex system than a spending rule or cap on expenditure growth. We will now examine the actual fiscal rules in more detail.

## Why did the fiscal rules fail?

It is not enough to simply say that the fiscal rules failed because government spending was too high. The purpose of fiscal rules is, in fact, to contain spending – or at least ensure that the gap between taxation receipts and spending does not grow too wide.

The system created by Gordon Brown and his advisor Ed Balls consisted of two primary rules (HM Treasury, 2008):

- The Golden Rule: ‘over the economic cycle, the Government will borrow only to invest and not to fund current spending’.
- The Sustainable Investment Rule, that ‘public sector net debt as a proportion of GDP will be held over the economic cycle at a stable and prudent level’.

That prudent level, in practice, was taken to be a total debt of no more than 40% of GDP.

The rules had several further safeguards in place:

- The 40% cap. The Golden Rule on its own would allow almost unlimited borrowing as long as it could be justified as ‘investment’. By limiting total debt to a constant 40% of GDP, the Sustainable Investment Rule ensured that this borrowing could not exceed the real growth rate for the economy – around 2.5% a year.
- Expenditure limits. The Treasury brought in a system of three-yearly spending reviews. Not only did this bring more predictability to the setting of departmental expenditure limits, it prevented the Treasury from spending any windfall gains.
- Growth Figures. The Treasury opted for deliberately pessimistic assumptions about the underlying growth rate of the economy.
- Independent accounting. While the Treasury was allowed to use its own forecasts, its assumptions and working were double checked by the National Audit Office.

Most independent institutions complimented the new fiscal rules, believing them to be a real advance on what had gone before. In 2001 the IMF, for example, reported that ‘the previous fiscal regime was flawed, in that it lacked transparency and frequently resulted in a looser fiscal stance than announced. The emphasis in the new fiscal framework on transparency, accountability, and cautious forecasting assumptions has addressed, and should continue to address, these shortcomings’ (IMF, 2001).

Later, in November 2006, the respected think tank the Institute for Fiscal Studies reviewed the Government’s finances. The report back was glowing: ‘Under the present forecasts, the government is set to meet its rules over both the current cycle and future economic cycles’. This represented ‘historically low levels of borrowing’ (Emmerson et al., 2006, p. 14).

Unfortunately, these assessments failed to prove accurate. While the Treasury's rhetoric may have highlighted prudence and cautious assumptions, its actual decisions seemed to rely on the economy never running into trouble.

For the first few years, the system did appear to be working. Between 1997 and 2001 Gordon Brown implemented a cumulative fiscal tightening of 4.5% of GDP, and was able to announce at each budget that growth and borrowing had outperformed his earlier forecasts. Despite the widespread belief that the underlying performance in the economy had improved and that the trend growth had increased, the Treasury based its projections on a cautious growth rate of 2.25% a year (Budd, 2010).

The November 2001 Pre-Budget Report was the government's first failure to meet his own predictions. The mini boom at the end of the millennium came to an end with the bursting of the dot com bubble and the shock of September 11<sup>th</sup>. Despite this, the government announced a significant rise in health spending, only partially meeting the cost with increased National Insurance contributions. Over the next six years, the government generally failed to meet its predictions while the deficit continued to grow.

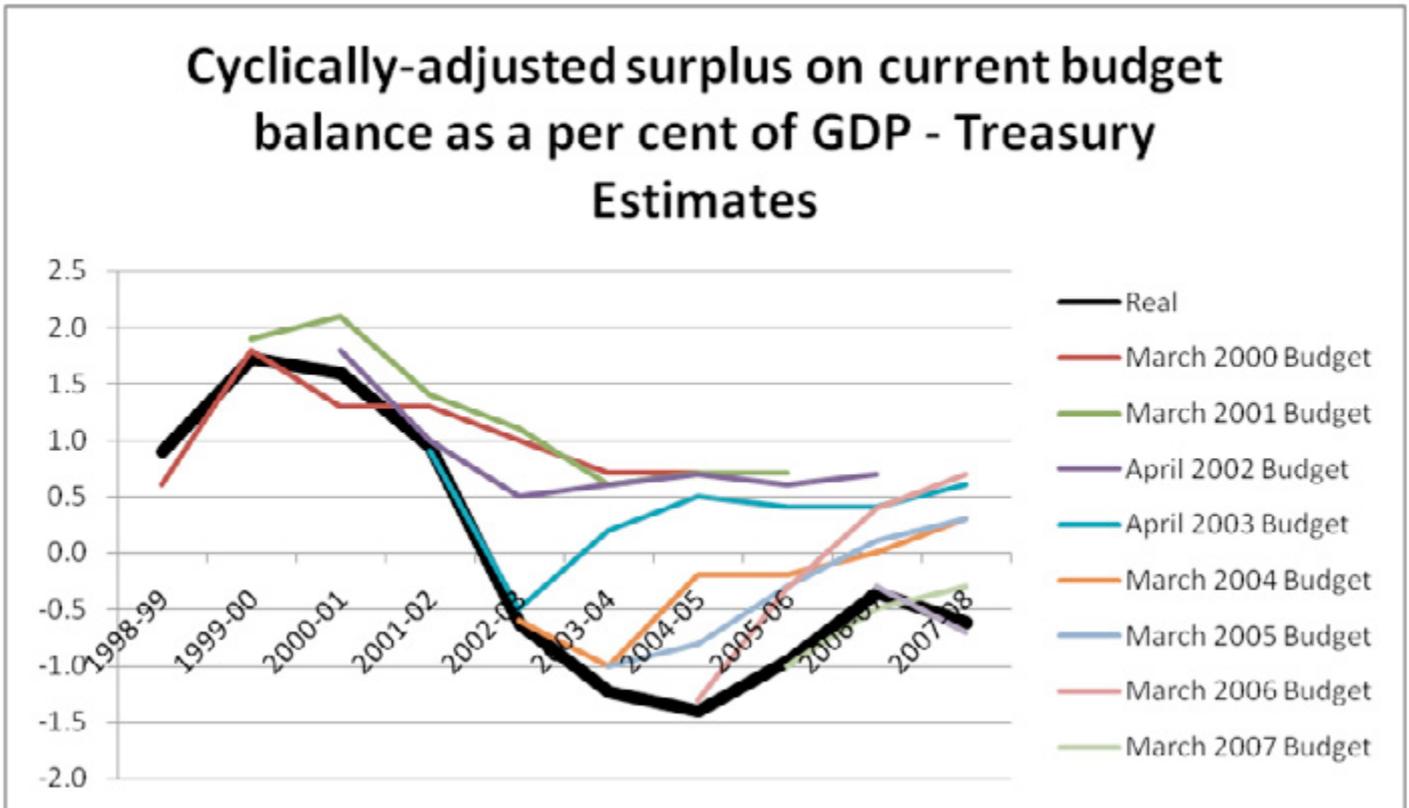
So why did the system not force the books back into balance? Why did Britain not follow Australia's path?

The system suffered from three major flaws:

- There was no room for error. If you considered 1997-2007 as one long business cycle, it has been argued that the government just about kept to the letter of its rules (Budd, 2010). Gross debt in 2007 remained lower as a percentage of GDP than in 1997. In reality, this set far too low a standard and left the Government no buffer to fall back on. When tax revenues from financial services proved unsustainable, so did the government's tax revenues.
- Too much flexibility. The terms of the rules allowed Labour to run whatever annual deficits it liked, as long as it could offset them against either earlier surpluses or predicted surpluses to come. The Treasury changed its definition of when the cycle began, and the underlying trend growth number on which its earlier estimates had been based. These new calculations were all audited by the National Audit Office, but many were nevertheless suspicious that the new corrections favoured the Treasury. It proved easier to change the definition of the economic cycle than to change the course of spending.
- Optimistic forecasts. The Treasury persistently over-estimated how soon the economy would recover and the budget would return to surplus.

The final point was especially crucial. The Golden Rule allowed the government to run deficits as long as it could project surpluses in the near future. Furthermore, extending the definition of the cycle (forwards or backwards) allowed the government to borrow more or less in a particular year by taking credit for past surpluses or predicted future surpluses.

In each new budget the government promised their books would balance tomorrow – but tomorrow never seemed to arrive as is shown in Figure 5.



**Figure 5: Budget surplus actual and predicted (coloured lines refer to predicted surplus in future years at the time of the budget indicated)**

Source: OBR, 2011c

The Golden Rule failed because it left no room for error, it provided too much flexibility to the government and it relied on over optimistic forecasts. In the next section, we'll look at how each of these problems could be overcome.

## Returning to balanced budgets

The UK has run balanced budgets in the past. Between 1830 and 1913, the UK budget deficit averaged close to zero. The UK ran a deficit of greater than 1% of GDP in only four years between 1816 and 1899 and, excluding interest payments, the average primary budget surplus was 4.6% (Ferguson, 2001, p. 126).

The reason the UK was so successful in eliminating budget deficits was that it followed a very simple rule, balancing its cash budget annually.

Any fiscal rule has to make a trade off between simplicity and flexibility. Simple rules, such as the implicit Victorian balanced budget rule, are easy to monitor. This ensures that the government can be held to account for its spending decisions. On the other hand, rules that are flexible give the government a freer hand to respond to economic circumstances.

Whether flexibility is needed depends on one's view of the role of fiscal policy. If prices are flexible so that unemployment remains low and does not rise consistently after economic shocks, discretionary 'demand management' is of little use. If prices are sticky, many economists – especially 'new Keynesian' economists – would suggest that discretionary monetary or fiscal policy might be helpful. There is still further a debate about whether fiscal policy or monetary policy is the best tool in a recession. If it is believed that monetary policy can manage the economy, or that discretionary fiscal policy has no effect, the case for simpler and more disciplined rules becomes accordingly stronger.

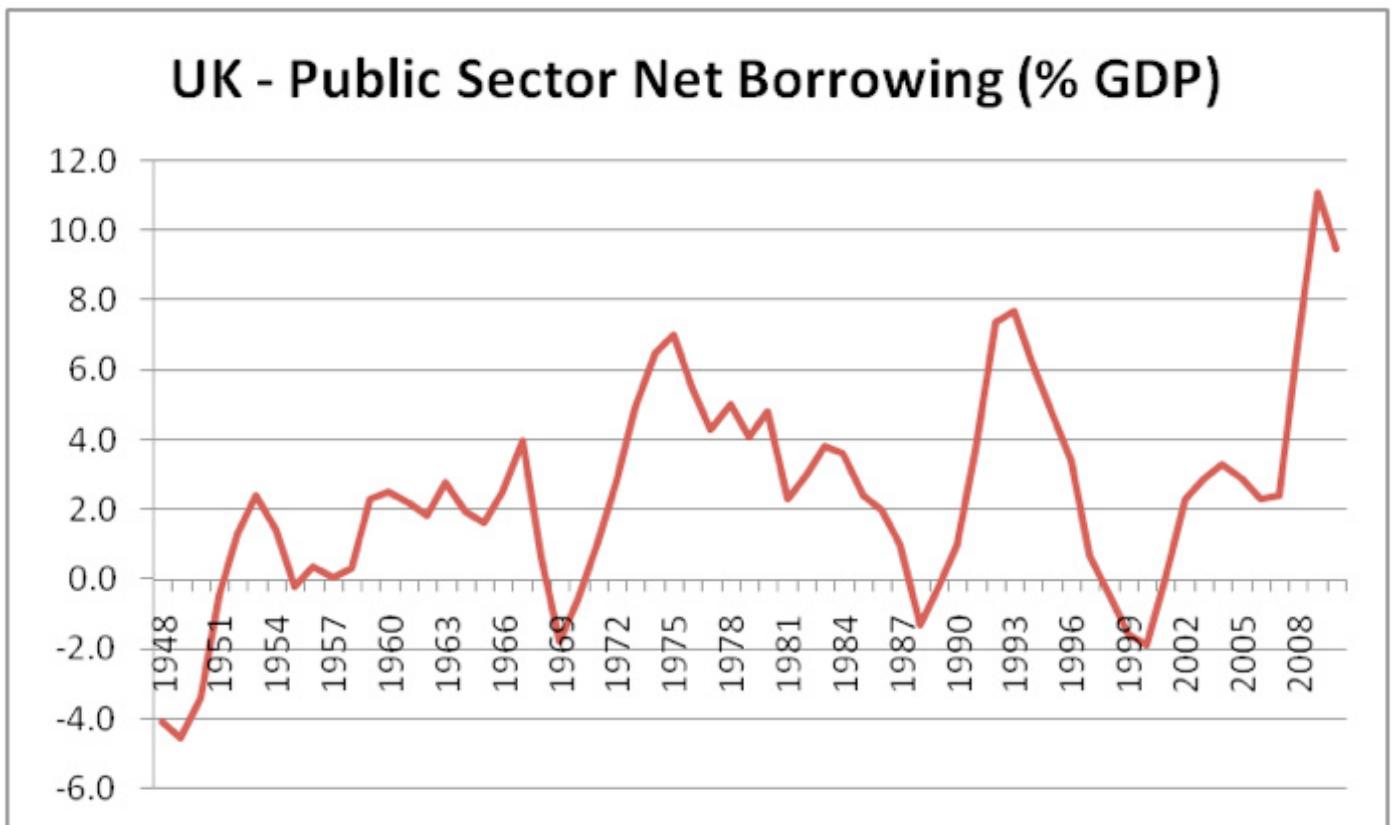
A spectrum exists between simplicity and flexibility. While the Golden Rule contained more discipline than a wholly discretionary policy, it lacked the discipline of, say, Switzerland's debt brake, let alone that of Victorian Britain. Figure 6 shows this.

| Belief about when to use fiscal policy | Fiscal policy has no effect | Allow automatic stabilisers  | Sometimes need discretionary fiscal policy | Always use fiscal policy discretionary fiscal policy to 'manage' the economy |
|--|-----------------------------|------------------------------|--|--|
| <b>Fiscal rule?</b>                    | Annual balanced budget      | Structurally balanced budget | Balance over the business cycle            | None   |
| <b>Example</b>                         | Victorian Britain           | Switzerland 'Debt Brake'     | UK's former Golden Rule                    | 1960s US   |

Figure 6: Fiscal rules appropriate for different prior beliefs about the role of fiscal policy

Britain's record of balanced budgets in peacetime effectively came to an end with the arrival of Keynesian thinking. Running a deficit, it came to be believed, was essential for managing demand in the economy and securing full employment. That intellectual consensus was buttressed by, in an increasingly democratic age, a desire to prioritise unemployment and growth over fiscal prudence – the case that there was no trade-off between fiscal prudence and growth being a difficult one for politicians to make in practice. Intellectually, fiscal policy was seen as more powerful than monetary policy.

Britain therefore sacrificed the virtues of the balanced budget, and ran a deficit for nearly all of the post-war period as can be seen in Figure 7.



**Figure 7: UK government borrowing in the post-war period**

Source: IFS, 2011

By the end of the twentieth century however, the economics profession had moved on from the most simplistic forms of Keynesianism. The record of discretionary fiscal policy was poor. Even ignoring arguments to do with 'crowding out', democratic legislatures find it difficult to quickly pass stimulus packages, or to find enough 'shovel ready' projects to invest in. The spending often only comes fully online after the recession has already ended. Studies of the eurozone show that a significant proportion of discretionary fiscal policy since 1992 has made the business cycle worse (Candelon et al., 2010). Furthermore, increased public sector spending at least partially crowds out the private sector, reducing the 'multiplier' effectiveness of any stimulus. Estimates vary, but, in some situations, the fiscal multiplier would seem to be zero.

By contrast, monetary policy could act instantly, did not require the running up of debt and could be managed by non-partisan central banks that had been given independence and a set of monetary rules or inflation targets. 'By 1995', says left-wing economic historian Brad DeLong, 'it was difficult to find an article in the American Economic Review or the Journal of Political Economy or the Quarterly Journal of Economics saying that...fiscal policy had any significant role to play in stabilising aggregate demand' (DeLong, 2012).

This easy consensus came to an end after the financial crisis, when interest rates across the world dropped to zero. Some economists argued that monetary policy was trapped by the zero lower bound for interest rates - a 'liquidity trap.' However, there is little evidence that such liquidity traps really exist. As economist Paul Krugman pointed out in the 1990s, as long as a central bank could credibly promise to inflate in future, even zero interest rates should not stop monetary policy from working (Krugman, 1998). Moreover, manipulating interest rates is only one means of conducting monetary policy. As Milton Friedman argued, and Ben Bernanke was later to agree, in the extreme the Government could simply print money and 'helicopter drop' it to their citizens. Ultimately monetary policy depends on the ability to create inflation, and few central banks have struggled to create inflation when they really tried to.

The full debate about the relative effectiveness of monetary and fiscal policy goes beyond the scope of this paper. However, for the purposes of our discussion, we will assume that monetary policy is effective, and that so-called 'liquidity traps' are a distraction. Under this assumption, the original Keynesian rationale for running discretionary deficits disappears. Problems in the economy either require monetary stimulus or they are 'real' problems that require changes to other policies to ensure growth and employment. Even if you do believe in the possibility of liquidity traps, in normal economic conditions such as when the Golden Rule was operating Britain has clearly not been in one. Even putting Monetarist and Classical approaches to one side, under standard 'new Keynesian' macroeconomics there was no need for discretionary fiscal stimulus. Gordon Brown's miniature stimulus in 2002 was undertaken when interest rates were at 4%, far above any zero lower bound.

The running of some deficits arguably still does more good than harm. When an economy is growing rapidly, income from tax revenues is relatively high, while spending on benefits is relatively low. In a recession, the reverse occurs. These phenomena are known as automatic stabilisers. Over the course of the economic cycle, it should net to zero without deliberate intervention by governments. Because of this, the automatic stabilisers have little effect on the long-term sustainability of the country. Without the cyclical deficit we would see continually fluctuating tax rates and public sector employment which does not make sense. <sup>1</sup>

If the economy is growing at its long run average, there should be no automatic stabilisers. The so-called 'cyclical' deficit will be zero. Any deficit that does exist will be 'structural', and will require conscious intervention by government to correct.

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<sup>1</sup> Indeed, perhaps 'automatic stabilisers' is a misnomer. More accurately, the government is simply ensuring that tax rates do not have to vary from year to year in order to meet a given year's spending – in the same way that somebody who was self-employed would not vary their consumption exactly in line with their earnings, but try to achieve some smoothing.

## A structural balance rule

A modern version of the Victorian balanced budget is a pledge to balance the structural budget each and every year. This is the principle embodied in the 'debt brake' form of fiscal rule adopted by Switzerland and later in Germany.

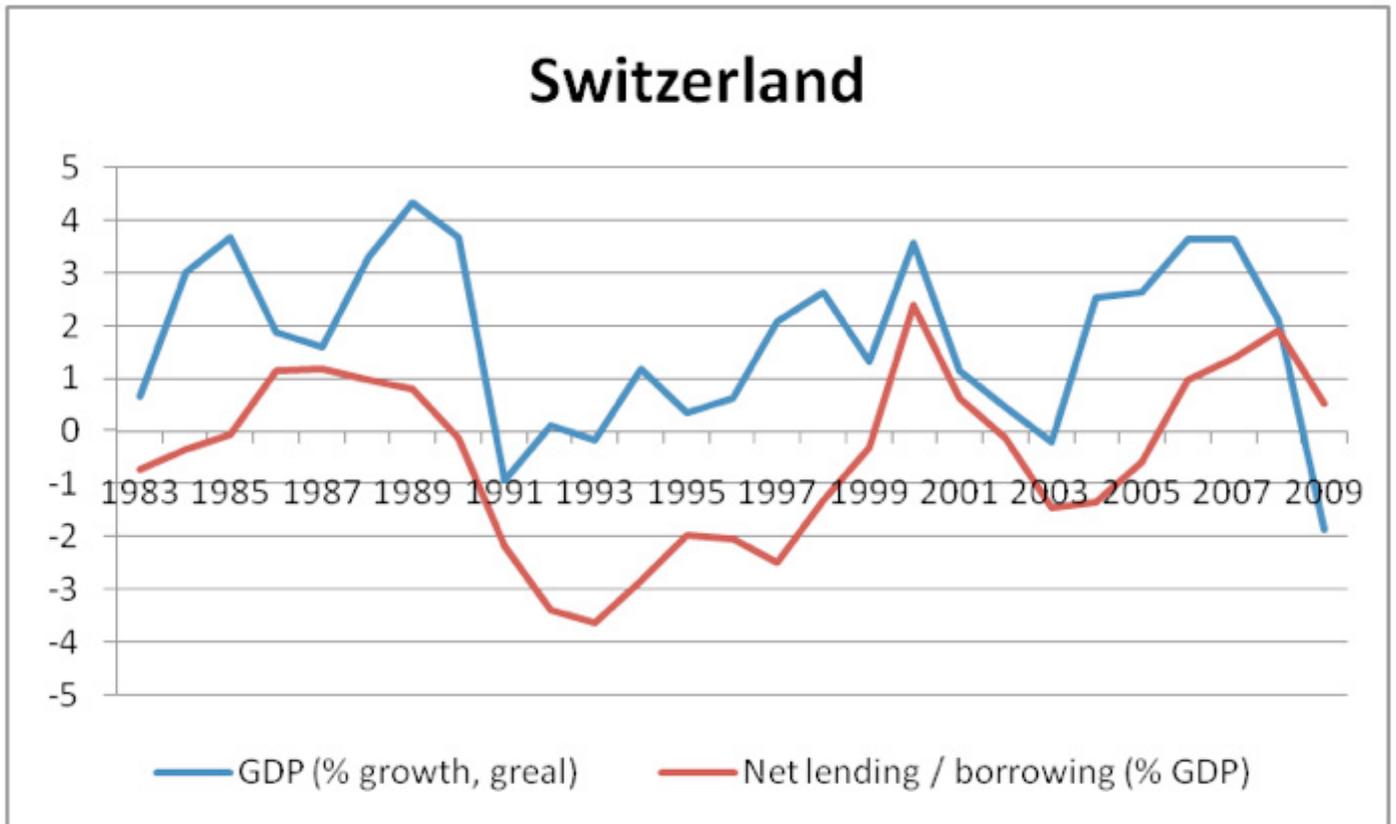
Over the 1990s, Switzerland saw a steady increase in its debt levels. In response, in 2001 the Swiss government introduced a new 'debt brake' constitutional amendment, requiring a balanced structural budget. The amendment proved popular with the public, receiving support from a comfortable majority of 85% of the electorate.



**Figure 8: Gross debt in Switzerland**

Source: IMF, 2012

The rule was fully implemented in 2006, and so far seems to have helped stem the nation's problem with deficits (see Figures 8 and 9). The structural balance rule, in practice, ensures that spending grows no faster than tax revenues. It is a more sophisticated version of the spending caps examined earlier. Growth of government spending in Switzerland has slowed from 4.3% per year in 2003 to 2.6% now. (Mitchell, 2012)

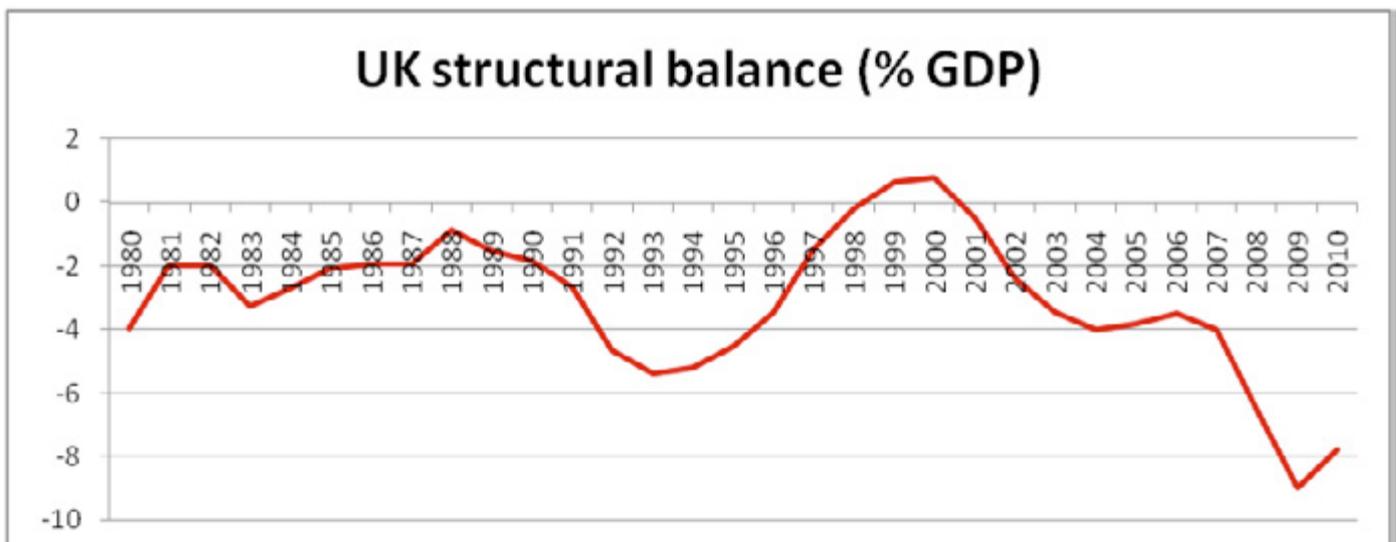


**Figure 9: GDP growth and government borrowing in Switzerland**

Source: IMF, 2012

One common misconception is that UK's Golden Rule sought structural balance as well. The Golden Rule actually sought balance 'over the economic cycle'. It still allowed discretionary stimulus in any particular year. Stimulus today would be (theoretically) paid for by austerity tomorrow.

A structural balance rule, by contrast, seeks to continually balance the budget each and every year. The UK has rarely met this standard (see Figure 10).



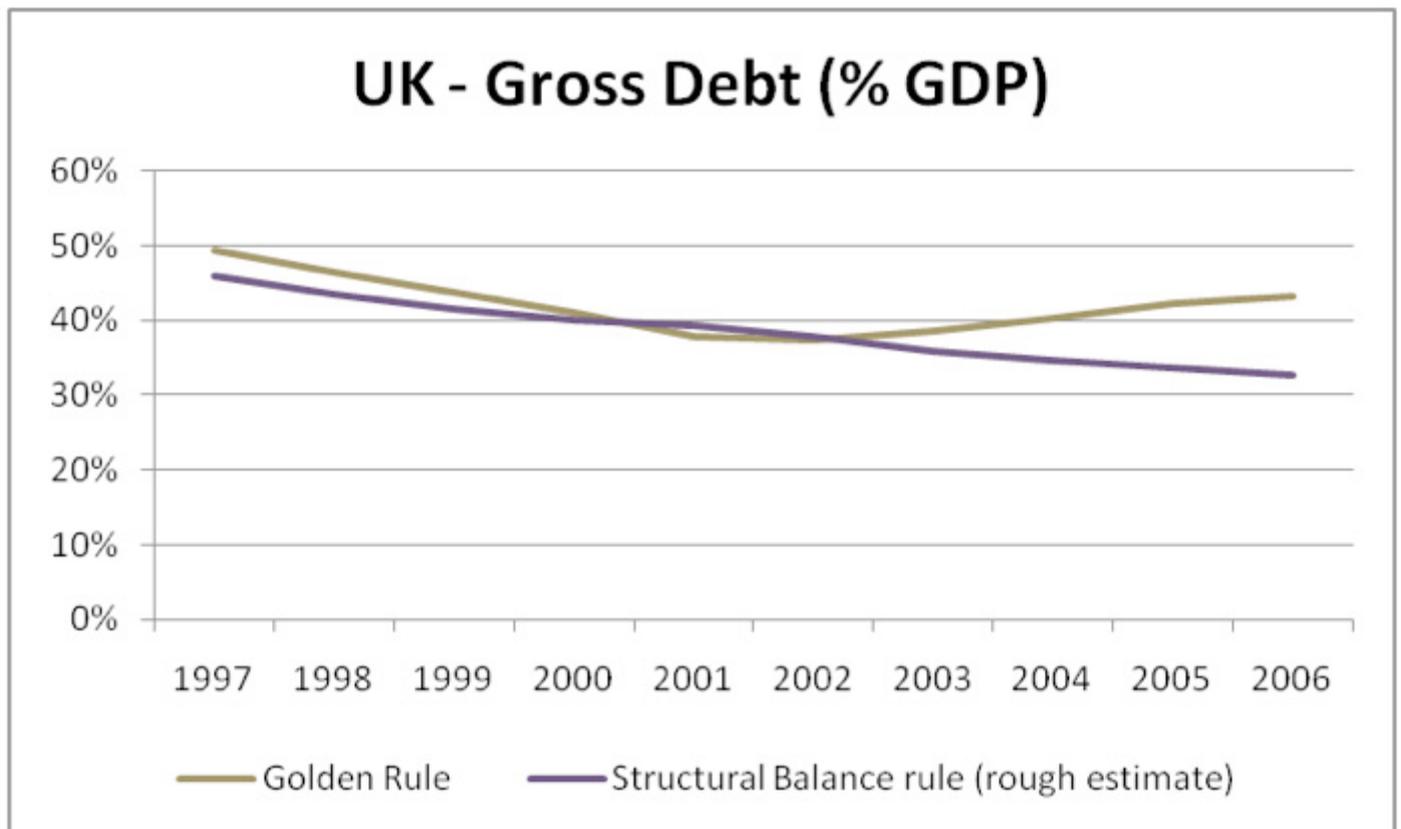
**Figure 10: UK structural balance**

Source: IMF, 2012

One advantage of a structurally balanced budget is that it provides room for error. As long as the economy grows, a structurally balanced budget ensures that the debt shrinks as a proportion of GDP. By contrast, the Golden Rule sought to maintain debt at a level no higher than 40% of GDP, but it did not actively seek to shrink it, allowing the buffer from growth to be spent on investment.

What would Britain's finances look like if we had implemented a structural balance rule instead of the Golden Rule?

It is impossible to answer this question precisely. However, we can make a rough calculation. Britain's gross stock of debt in 1996 was £377bn or 48% of GDP. If we add up the cyclical deficits and surpluses to 2006, they net to £41.8bn. That implies total debt would have been roughly £433bn, or 33% of GDP. In reality, by 2006 total debt was actually £573bn, or 43% of GDP (IMF, 2012). This is shown in Figure 11.



**Figure 11: UK gross debt, % GDP, with and without a structural balance rule**

Based on: IMF, 2012

There is no perfect means of distinguishing between the structural and the cyclical deficits. Economists have long studied the best way of separating out the long-term 'trend' growth in the economy from fluctuations in the business cycle, the so-called 'output gap'. The Office for Budgetary Responsibility (OBR) suggests three broad methods of determining this (OBR, 2011b):

- Estimating long term growth. The long-run trend of the economy is distinguished from short-term fluctuations by running historical growth data through a statistical filter.

- Estimating the production function. The supply potential of the economy is calculated by adding up estimates of available labour, capital and productivity.
- Estimating spare capacity. Spare capacity is statistically derived from a range of cyclical indicators, including business survey data, earnings growth and unemployment rates.

Each method has its drawbacks, and no consensus exists on the best choice. Switzerland's fiscal rule makes use of a statistical filter known as Hodrick-Prescott, while Germany uses the production function approach (IMF, 2009, p. 55). The OBR relies mainly on its judgement of the cyclical indicators to measure the output gap.

None of these methods produces an automatic, unambiguous estimate of the right answer. Past mistakes in calculating the output gap were responsible for many of the excessively inflationary policies of the 1970s. The Financial Times' Economics Editor Chris Giles goes so far as to complain about '[the] obsession with talking about the "structural" or "underlying" budget deficit as if we have the faintest idea what it is' (Giles, 2010).

This complaint goes too far. There is no perfect measure of inflation or unemployment, and statistics on growth rates continue to be updated many years after their first estimate. The concept of a structural deficit is widely understood, has a long track record and is widely calculated by both national and international organisations. Just as no fiscal rule can be perfect, no measure of sustainability can be perfect either. That does not mean that structural deficits are not our best rule of thumb metric for how sustainable a government's choices are. Clearly, however, the process of how the structural deficit is forecast is important.

Optimistic forecasts are a problem for governments worldwide. Economist Jeffrey Frankel has studied the difference between official forecasts of government borrowing and the actual balance by looking at the data for 33 countries. He found that the greater the uncertainty, the more governments took the opportunity for optimistic thinking. He found an upward bias of 0.2% of GDP for one-year forecasts of the budget balance, 0.8% for two-year forecasts, and 1.5% for three-year forecasts. This bias is shared by both developed and developing countries. The UK and USA proved even worse, suffering, on average, a 3% upward bias over their three-year forecasts. As Frankel points out, this is largely equivalent to the entire deficit. Frankel did discover one of class of offenders worse than the UK: the member of the eurozone's Stability and Growth Pact. When these countries looked set to exceed the pact's debt limits, Frankel discovered that they were more likely to adjust their forecasts than their spending plans (Frankel, 2011). Many economists have discovered significant evidence of creative accounting in the eurozone (Hagen et al., 2004).

The creation of the independent Office for Budget Responsibility (OBR) has increased the transparency and credibility of the UK's accounts and forecasts. Nevertheless, no matter how non-partisan, it has no special power to judge the underlying growth rates in the economy. It is stretching credibility to believe that the OBR would have forced a significantly more responsible spending path in the early 2000s. Certainly, during the 'Great Moderation' the technocratic institutions of the Treasury, the IFS, the OECD, the IMF and the Fed all failed to spot the bubble that was about to burst.

## Refining a structural balance rule to reduce cumulative errors

Economist Robin Hanson suggests a possible complement to a QUANGO such as the OBR: the creation of a prediction market (Hanson, 2011). No one expert or institution can have all the knowledge necessary to make fully accurate predictions. Social scientist Philip Tetlock spent two decades tracking the predictions of political experts, and found that they perform scarcely better than random guessing. The predictions of the average expert performed worse than a simple algorithm that the future would resemble the past (Gardner et al., 2011).

Markets are the main means which we use to aggregate information across the economy into a single price. Rather than rely on bureaucratic process, a market creates the incentives for everyone to search for better information. Real consequences exist for getting a prediction wrong. Prediction markets are 'forums for trading contracts that yield payments based on the outcome of uncertain events.' (Arrow et al., 2008).

The government could subsidise a prediction market on the future growth rate of the economy. Such prediction markets are already used internally by companies such as Google, General Electric and IBM (Arrow et al., 2008). Such markets have been shown to predict elections better than opinion polls; Oscar results better than columnists; and Hewlett Packard printer sales better than official forecasts (Hanson, 2007, p. 6).

Regardless of how we generate the data, no forecast will be perfect and mistakes will be made. Most fiscal rules are forward looking: they recommend the actions that will bring the budget back to balance in the medium term, while doing their best not to damage the economy in the short term. The danger with such rules is that, if forecasts are persistently optimistic, total debt can gradually ratchet upwards.

By contrast, another interesting feature of the Swiss debt brake is its 'error correction' mechanism. Deviations from structural balances are collected into a notional compensation account. This balance is taken into account when setting the following year's targets, and when the deficit proves greater than 6% of expenditure the excess must be eliminated within three annual budgets. The idea is that mistakes in forecasting should not have long lasting effects on the Swiss debt

A British debt brake would restore the credibility of Victorian balanced budgets while retaining the flexibility of automatic stabilisers. Such a system provides a clear indicator of whether the Government is spending too much or not. In the medium term, debt should shrink as a proportion of GDP, creating fiscal space to respond to emergencies. Estimates of the structural deficit come from an independent body, and can be double checked by a prediction market. If they prove mistaken, however, the government is forced to correct the overspend with spending restraint in future years.

## Conclusion

There is a trade-off between the simplicity of any measure of sustainability and the degree to which it is comprehensive. If we were an omniscient planner, then we could foresee the future path of growth, demographics, and politics. We might then be able to estimate whether the government's finances were sustainable, and whether they fairly shared burden and benefits between the generations. In reality, we cannot approach this level of sophistication. We have no idea what the rate of growth will be in ten years from now, let alone what 'black swans' might emerge in the twenty-first century.

Fiscal rules can never be entirely comprehensive. For example, they do not stop a government from increasing implicit liabilities (such as future pensions) whilst taking measures that raise more government revenue now.<sup>2</sup>

However, we should not let the perfect be the enemy of the good. Fiscal rules cannot rely on accurate predictions of the future, but they can counter our instinct to only focus on the present. The Golden Rule ultimately failed because it sought to maintain enough flexibility to allow the government to run its own discretionary fiscal policy. In an economy such as the UK, with its own currency and monetary policy, this power is not needed and does more harm than good. Our proposed debt brake and error correction mechanism would be more effective.

Overall, it can be said that if the current structural deficit is eradicated, that will be a significant achievement. Even better, however, would be to tie the hands of future governments to make sure that once gone, it does not return.

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<sup>2</sup> For example, the Hungarian and Argentinian governments have nationalised private pension assets, used the money to reduce the debt and given members of these plans promises to pay future government pensions instead. In a less dramatic way, it is likely that the current government will abolish contracting out from pensions, thus raising tax revenues but increasing government pension obligations.

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