Comparing the delegation of monetary and fiscal policy

Simon Wren-Lewis

Economics Department and Merton College,

Oxford University

An updated version of a paper prepared for the Conference on Independent Fiscal Institutions, organised by the Hungarian Fiscal Council and Academy of Sciences in Budapest, March 2010. My thanks to Julia Bertelsmann, Lars Calmfors, Robert Chote, Alex Cukierman, Jürgen von Hagen, George Kopits, Lajos Ódor, Alice Rivlin and Coen Teulings for helpful comments and discussions.

Abstract

The apparent success of independent central banks in conducting monetary policy has led many to argue that some form of policy delegation should also be applied to the macroeconomic aspects of fiscal policy. A number of countries have recently established Fiscal Councils, although their role is typically to give advice on paths for government debt and deficits rather than decide upon and implement policy. This paper examines how useful a comparison between monetary and fiscal policy can be in motivating and guiding Fiscal Councils. Simple analogies between inflation bias and deficit bias appear misleading, and the motives for delegating aspects of fiscal policy may be rather different from those generally associated with monetary policy. In addition, lack of knowledge about the desirable goals of long run debt policy, compared to a greater understanding of the objectives of monetary policy, may help explain key differences in the nature of delegation between the two.

0. Introduction

Many people (for example Leeper, 2009) have used both the existence and apparent success of independent central banks to argue that a similar idea can be applied to fiscal policy.[1] However no country has set up a body like a central bank that has formal authority over the level of public debt or deficits, in the manner that central banks have control over interest rates[2]. Instead, the institutions called 'Fiscal Councils' that exist in some countries are advisory bodies, with no statutory control. However, this does not mean that comparisons between how monetary policy has been delegated and existing or potential Fiscal Councils are not revealing. Indeed, it may be that examining such differences can shed some light on why the nature of delegation is different in each case. This paper focuses only on the macroeconomic role of a Fiscal Council, and leaves aside the question of whether the Council could also provide microeconomic analysis (as is the case for the CBO in the US and the PBO is Canada, for example).

Section 1 compares how delegation has worked in practice for monetary and fiscal policy. We distinguish a number of stages of the policy making process, from its ultimate objectives, through forecasting, to the public evaluation of decisions. A number of differences in the areas and form of delegation are discussed. This raises the question of whether these differences might stem from different motivations for delegation in each case.

The reason most often cited in the academic literature for the delegation of monetary policy to independent central banks is the problem of time inconsistency and inflation bias. Although it has been suggested that similar time inconsistency problems could account for deficit bias (the trend rise in government debt over time), in Section 2 we show that this is incorrect. Although significant time inconsistency problems associated with inflation do arise in optimal debt policy, they do not account for deficit bias.

Section 3 explores other potential causes of deficit bias that have been discussed in the literature. Some of these suggest that partial delegation (for forecasting, or evaluation) might be sufficient, while others call for more wholesale delegation. These differences in themselves may help account for why the form of delegation varies across Fiscal Councils around the world. The fact that no Fiscal Council has the power to impose deficit targets on their government (in contrast to central banks choosing interest rates) is often put down to the political sensitivity of tax and spending decisions. This section suggests an alternative explanation, which is that no consensus exists about what the objectives of debt policy should be.

This point is explored further in Section 4, which examines reasons why the random walk steady state optimal debt result, which comes from tax smoothing, is not a satisfactory basis for policy. Although issues concerning potential default are important at the moment, in more normal times issues concerning the crowding out of capital may be more critical. Macroeconomic theory has

[1] Recent developments may have called into question this success, but as Wren-Lewis (2010) and others have argued, the zero lower bound for interest rates was always a key caveat for theories of a 'Great Moderation', and so problems associated with hitting this zero bound should not necessarily detract from achievements in more normal times.

[2] The example that comes nearest to a fiscal institution with control over deficits is probably Belgium: see Lebrum (2007). Debrun et al (2009) call an institution with some form of statutory control an 'Independent Fiscal Agency', and they are also sometimes referred to as Fiscal Policy Committees.

models which suggest very different answers on this issue, and our ability to use empirical evidence to decide between them is at present weak. This suggests an important role for a Fiscal Council, in helping to stimulate and evaluate research on this issue. More importantly, when a consensus does not exist on what the optimal policy is, but when there are clearly policies that are not optimal (e.g. unsustainable), an independent institution is invaluable in helping to electorate evaluate the decisions of government.

Section 5 looks at how these issues have influenced the formation of the newest Fiscal Council, the Office for Budget Responsibility (OBR) in the U.K. It is suggested that the structure of this body has focused too narrowly on the delegation of forecasting, and has put insufficient stress on the importance of evaluation. It also raises issues about whether it is best to completely delegate the government's fiscal forecasting to a Fiscal Council, or whether it is preferable for the Fiscal Council to play a more evaluative role by producing forecasts alongside those of government. Crucial here is the issue of ensuring independence. A final section concludes.

1. From objectives to evaluation

In what has been described elsewhere as the consensus assignment (Kirsanova, Leith and Wren-Lewis, 2009), monetary policy is assigned control of inflation and demand by varying interest rates, and fiscal policy (at the macro level) the control of government debt by changing taxes and spending. Careful advocates of this assignment normally add a proviso, which is that it only applies in circumstances where monetary policy is unconstrained, and in particular where interest rates are not at a zero bound[3]. As we have seen over the last two years, when interest rates do hit a zero bound, fiscal policy should step in to the demand management role.[4] Fiscal policy is also the only tool for national countercyclical policy for a member of a monetary union. This something a Fiscal Council will need to deal with, but for expositional purposes it is easier if we start from a position in which the consensus assignment does apply (perhaps because the exchange rate is flexible), and then later go on to deal with the problem of fiscal demand management. [5]

The standard analysis of policy focuses on objectives and instruments. The schema in Figure 1 is more elaborate. First, we distinguish between ultimate objectives (which for monetary policy will include a medium term level of inflation), and the implementation of those objectives (how quickly inflation is brought to that target after a shock, and at what output cost). Second, we explicitly allow for the forecasting process, which is an inevitable part of policy making when there are lags and forward looking behaviour. Finally, we allow for a public evaluation process, by which the success or otherwise of the policy is judged. None of these categories is precisely defined: for example, instead of a separate evaluation category, we could distinguish between implementation and evaluation for each other category.

In the case of monetary policy undertaken by independent central banks, there is normally a mandate set down by government which will discuss ultimate goals. In some cases (e.g. UK) there is an explicit inflation target. However, even with explicit inflation targets it is generally understood that the Bank has discretion over how quickly to bring inflation back to target following some shock, an assessment which will include some implicit inflation/output trade-off.[6] The Bank's interest rate decision will also be guided by an internal forecast, although how this forecast is constructed and the weight put on it varies across banks. In some cases independence has been granted with an explicit evaluation procedure. In the case of the UK, for example, the Governor of the Bank has to write a letter to the Chancellor if the inflation target is missed by more than 1%. More generally, independent central banks are subject to parliamentary scrutiny, although how effective this is probably varies across countries. (By evaluation, we mean a critical discussion of past and current policy at all four levels, using the appropriate academic research.)

---

[3] Or more strictly, where there was not a significant possibility that the zero bound would be hit in the near future, given the implementation lags involved in fiscal actions (see Wren-Lewis, 2010).

[4] There is some controversy associated with this statement, although I have argued elsewhere that there should not be (Wren-Lewis, 2010). Much more controversial is how big any fiscal stimulus should be and how long it should last.

[5] Implicit here is a view that, zero bound problems aside, the consensus assignment should apply in floating exchange rate regimes: see Kirsanova, Leith and Wren-Lewis (2009). If this view is not taken, and if fiscal policy is routinely used as a countercyclical tool, then there are far greater similarities between fiscal and monetary policy.

[6] The conservative central banker literature makes great play over differences between preferences over output and inflation between the government and the central bank. Since Woodford (2003), the macroeconomics literature has viewed this trade off as a more technical problem based on consumers utility.

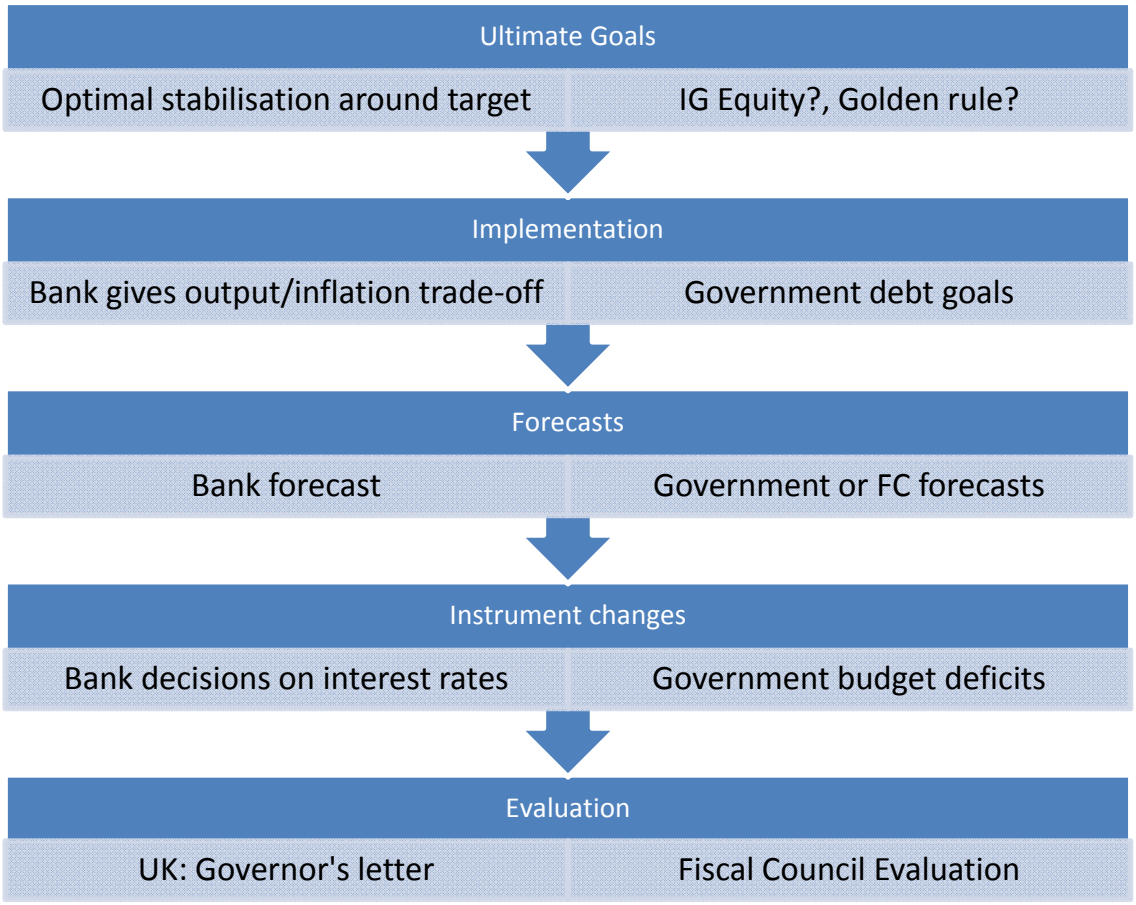


Figure 1 Comparing monetary and fiscal delegation

A comparison of each of these five areas with fiscal policy making reveals the scope for delegation, and some of the key issues that are explored more fully below. First, while there is general agreement about the ultimate objectives of monetary policy, the ultimate goals involved in choosing a path for government debt and deficits are far less clear. Of course even with monetary policy there is still debate, most recently with the suggestion that perhaps inflation targets are too low because this increases the chances of hitting the zero bound. But even if inflation targets were to change, the orders of magnitude involved would not be large. Compare this with government debt. (Section 4 contains a detailed discussion.)There is no general agreement about what levels government debt in relation to GDP should be, or indeed whether this measure is the appropriate fiscal target. Levels of government debt differ widely across countries, while inflation targets (implicit or explicit) across countries are fairly close.

We could define the ultimate objective of both policies is the maximisation of social welfare. However, even if we adopt this unifying device, there are two clear differences between monetary and fiscal policy. First, inflation directly affects social welfare and human happiness. For example, following the work of Michael Woodford, it is now possible to formally incorporate the costs of inflation (when sticky prices are due to Calvo contracts) in a social welfare function based on the utility of the representative agent, where inflation costs are due to the relative price dispersion

generated by positive inflation. At an empirical level, research on happiness consistently finds large and significant negative effects from higher inflation and unemployment. In contrast, the costs of excessive debt are more indirect. To my knowledge no one has added government debt directly into a social welfare function, or measured the impact of high government debt on happiness.

Second, the impact of debt on welfare (aside from crisis periods) is much more long term. This means that any welfare analysis has to take a view on intergenerational equity. One possibility is to assume that agents collectively internalise the welfare of future generations, but this Ricardian model also implies that debt does not matter. Once we depart from a Ricardian world, debt will impact on the long run capital stock. Any evaluation of social welfare will have to address issues of intergenerational equity that can be largely ignored when evaluating monetary policy.

While these issues for fiscal policy remain very uncertain and are not much discussed, there is a great deal of discussion of possible rules for government debt and deficits. But these rules, and their associated targets for debt to GDP ratios and the like, are intermediate targets.[7] The reasons why high government debt is undesirable are well known, but it is much more difficult to then say what these undesirable consequences imply for the optimal level of debt. This uncertainty, I will suggest below, has important implications for any delegation of fiscal policy.

Differences in timing carry over to the forecasting process. Forecasts on which monetary policy decisions are based need go little further than 5 years ahead. In New Keynesian terms, the natural span of any monetary policy exercise is directly related to the period over which prices remain sticky[8]. Forecasts designed to evaluate the sustainability and desirability of debt policy should be much longer term. In their 2010 evaluation of the long term US budget outlook, the Congressional Budget Office (CBO) present projections until 2080.

Monetary policy decisions, at least in normal times, involve a single instrument. Although in the past some central banks have tried using monetary aggregates as intermediate goals, nowadays it is generally assumed in normal times that short term interest rates are the policy instrument. In the case of fiscal policy there are many policy instruments: different tax rates and allowances, different types of spending etc. If we know how changing each tax rate changes debt, then from the point of view of controlling government debt it is irrelevant which particular tax we use. However from a broader social and economic perspective, there is a great deal of interest in which tax is changed. For this reason alone, it is inconceivable that an independent fiscal authority could ever be given the power to choose tax rates, or how much to spend on individual government spending programmes. However in principle, an independent fiscal agency could be given the power to impose a deficit figure on the government, leaving the government to choose how to achieve this deficit.

---

[7] In this schema, we could class the annual budget deficit as the instrument of macroeconomic debt policy, although this would suggest a degree of control that is hardly realistic. (Similar misgivings would apply to treating the money supply as an instrument under monetary targeting, which is why it is normally considered as an intermediate target.) If we did this, the 'implementation' category might seem redundant. However government goals for fiscal policy are normally less precise, for example an objective not to exceed some debt to GDP ratio of the business cycle.

[8] Assuming that we can ignore hysteresis, which may be a dubious assumption (see Ball, 2010, for example). [add ref]

In the case of monetary policy, independent central banks control implementation, the forecast and policy decisions over interest rates. They may also conduct ex post evaluation. In the case of fiscal policy, the extent of delegation is more piecemeal. In many countries Fiscal Councils co-exist with fiscal rules that the government both sets and attempts to achieve. In some cases fiscal councils produce the forecasts on which government budgets are based (e.g. the Central Planning Bureau in the Netherlands and the Office for Budget Responsibility in the UK), but in others they do not.[9] There are no independent fiscal agencies that have the power to impose a deficit target on the government. Indeed, the role of an independent fiscal council may be limited to the last of the five areas considered above. Rather than replace any activity of government in the area of fiscal policy, a Fiscal Council can simply be a public 'watchdog', which comments on government activity in all other areas. (This seems a fair description of how the Swedish Fiscal Council works, for example: see Calmfors, 2010a.) We could describe such a watchdog as the 'delegation of evaluation'.

In this sense, delegation of fiscal policy is a rather more subtle and varied affair than delegation of monetary policy. An interesting question is whether this variation reflects differences in the motivations for delegation, an issue to which we now turn.

[9] Although where they do not, this is sometimes because there is a separate forecasting agency which is recognised as having considerable independence (e.g. Sweden).

2. Time Inconsistent Debt Policy

In this section I argue that the standard academic justification for delegating monetary policy, involving time inconsistency, does not transfer to fiscal policy towards debt.

Much of the discussion around the delegation of monetary policy has focused on 'inflation bias', and the starting point of discussions about the need to control debt has been the 'deficit bias' that we have observed in the OECD as a whole over the last forty years or so. If these two biases have a similar cause, then any solutions to them involving delegation may also be similar. In an exam for undergraduate economists, if you ask a question about why independent central banks are thought to be a beneficial form of delegation, the student will almost certainly see this as a prompt to explain the problem of time inconsistency in monetary policy. The academic literature on this is so large and also so well known that no summary will be attempted here. Instead I will ask whether, if this is what academic economists think is the main reason for the delegation of monetary policy, a similar approach cannot be applied for fiscal policy?

At first sight this line of enquiry seems promising. The potential impatience of politicians is often seen as an important part of the inflation bias story, and this also seems to apply to fiscal policy. The benefits for the politician of cutting taxes or increasing spending are immediate, whereas the costs in servicing higher debt can be put off into the longer term. In addition, just as time inconsistent and time consistent monetary policies can be very different, recent research has shown that optimal policy towards debt under discretionary and commitment will also be quite different (see below). These similarities may have led the UK Chancellor, in the Mais lecture he gave before the election that brought him to office, to claim: "Evidence suggests that many of the same time-consistency problems that lead to inflation bias when politicians are in direct control of monetary policy can lead to deficit bias in fiscal policy."[10] Unfortunately, as I will now show, this claim is wrong.

What is the optimal level of government debt, and how quickly should we try and get there? To the extent that debt is financed by distortionary taxation, then if we could choose our initial level of debt, we might choose a negative level, so that any government spending could be financed from the interest on these assets.[11] However, if we instead inherit a positive level of debt, then it would be undesirable to try and eliminate it, even if it was not the initial level of debt/assets we would have chosen. (This result was first shown in Schmitt-Grohe and Uribe (2004) and Benigno and Woodford (2003). Lambertini (2007) and Eser et al (2009) show that the result also applies in an open economy.) This is sometimes called the random walk steady state debt result, but it is really just an extension of tax smoothing.

To demonstrate this at its simplest, suppose we ignore government spending, and assume debt (which is indexed, and pays a real interest rate) is entirely financed by distortionary taxes. Assume the optimal level of taxes is zero, and their cost is quadratic. The optimal level of debt in the absence of history is also clearly zero, but let us assume that we inherit a positive debt $D_{-1}>0$. Optimal policy involves choosing debt and taxes to minimise discounted costs i.e.

[10] http://www.conservatives.com/News/Speeches/2010/02/George_Osborne_Mais_Lecture_-_A_New_Economic_Model.aspx

[11] Perhaps we would allow some financial debt if this debt was used to finance public sector capital projects, where those projects yielded a financial return, or where intergenerational equity considerations implied that debt finance was desirable.

Minimize $_{i=0}\sum^{\infty} T_i^2/(1+r)^{t-i} = T_0^2 + T_1^2/(1+r) + T_2^2/(1+r)^2 + \ldots$

subject to $D_t=(1+r)D_{t-1}-T_t$ for each period t>=0, where r is the real interest rate. We normalize the impact of distortionary taxes on welfare to one for simplicity.

Writing this as a Lagrangian

$L_0 = (T_0^2 - 2\lambda_0(T_0-(1+r)D_{-1}+D_0)) + (T_1^2 - 2\lambda_1(T_1-(1+r)D_0+D_1))/(1+r) + \ldots..$

then each period the first order conditions will be

$T_t - \lambda_t = 0$

$-\lambda_t + \lambda_{t+1} = 0$

for all t. We can see immediately that the Lagrange multiplier is constant, so taxes will be constant in every period, which if debt is not to explode implies a constant level of debt. So taxes in each period are enough simply to finance the interest payments on the inherited level of debt, and the optimal policy involves keeping debt at this inherited level, whatever this inherited level might be.

For example, accommodation implies taxes have to rise to rD_{-1}. The discounted welfare cost of this is $r(1+r)(D_{-1})^2$. Compare this to the cost of eliminating debt immediately, $(D_{-1})^2$, which is clearly larger for all feasible values of real interest rates.

The implication of this analysis is stark. Debt targets do not make sense in this framework. Instead government debt is a buffer which we should allow to be blown this way and that according to the economic wind. [12]

This random walk steady state optimal debt policy is time consistent (the first order conditions above are identical for all time periods including the first), so there is no problem of time inconsistency here. However, in this example, the only way to reduce debt was by raising taxes. In practice a good deal of government debt is fixed in nominal terms. In these circumstances, we could reduce the debt burden by unexpectedly raising inflation. Come the next period, it would be optimal to reduce debt still further by this means, so policy becomes time inconsistent. Agents assuming rational expectations will anticipate this continuing incentive to raise inflation, and so the optimal policy will (given these expectations) become the time consistent, discretionary solution.

The same point would arise even if all debt is real, but prices are sticky, because in those circumstances the monetary authority can temporarily change real interest rates. Lower real interest rates have a similar effect in reducing the debt burden, but because it influences inflation, any attempt to reduce debt this way will also be time inconsistent when inflation is determined in a forward looking manner. With a forward looking Phillips curve, the cost of any policy changes that influence inflation and hence welfare will differ in the first period compared to all others.

As a result, as Leith and Wren-Lewis (2007) show, following a positive shock to debt the time consistent policy has to involve debt returning to its initial, pre-shock level i.e. it has to be a debt

[12] This benchmark result also explains why governments might not worry about what the optimal level of debt is, even when debt targets are imposed, because the least damage is done by having a target equal to the inherited debt stock.

targeting policy rather than a debt accommodation policy. If it was not, then there would always be a first period incentive to move debt slightly towards its initial level, and so the policy would be time inconsistent. Leith and Wren-Lewis (2007) also show that the costs of not being able to follow the steady state random walk result are significant, in part because in this closed economy setting debt is adjusted very rapidly under discretion.

So the time consistency problem for optimal debt policy has some clear similarities with the same problem for monetary policy. Under sticky prices the source of the problem can be the same (a forward looking Phillips curve), and the costs of not being able to commit to the time inconsistent policy can be significant. But there are two basic problems. First, this is not a story of deficit bias. Second, the impatient fiscal policy maker, unlike their monetary counterpart, has an incentive to stick to the time inconsistent plan.

The optimal time inconsistent debt policy, as we have already noted, does not involve returning to a debt target. The time consistent policy does. So we cannot claim that the problem of time inconsistency and lack of commitment, at least in this context, causes deficit bias.[13] Deficit bias is all about an upward drift in debt levels over time, so it is hardly consistent with a situation where policy makers are forced to rapidly return to a debt target.

This fact also reveals the second problem, which is that an impatient fiscal policy maker will tend to stick to the time inconsistent plan. The benefits of not doing so are long term: after a positive debt shock, the time inconsistent plan tries to initially reduce the steady state rise in debt. The costs of departing from the time inconsistent plan are short term, involving whatever measures (including higher inflation) are required to initially reduce debt. Although there may be some cases where there is an incentive to renege, typically an impatient policy maker's incentives are to stick with the time inconsistent plan, which is perhaps why we do not see policymakers rapidly reducing any positive shocks to debt. This is the exact opposite of the monetary policy case.

So while there may well be a time inconsistency problem associated with inflation and debt, that has similarities to the problem of inflation bias, it is unlikely to lead to deficit bias. We need to look elsewhere for explanations for deficit bias. But before doing so, we need to make one important point. If fiscal policy is also being routinely used for countercyclical policy, because for example the country is part of a monetary union, then *that aspect* of fiscal policy clearly involves inflation bias and time inconsistency. Indeed, most of the literature on inflation bias merely postulates a policy maker that can control inflation by some means, and this could equally well be fiscal policy as much as monetary policy. However, our principle concern in this paper is with fiscal policy as a means of controlling debt, not demand and inflation.

[13] As time consistency problems are endemic in models with forward looking behaviour, there may be other stories about deficit bias that could involve time inconsistency problems (such as hyperbolic discounting, which we discuss below), but we focus on the case closest to the monetary policy literature here for obvious reasons. We should also note the straightforward point that if fiscal policy was used for countercyclical purposes, then the standard story involving inflation bias transfers automatically.

3. Motives for delegating fiscal policy

There are a large number of reasons discussed in the literature that might lead to deficit bias, and that therefore could provide a case for the delegation of policy. (For two useful surveys, see Debrum (2009) and Calmfors (2010b).) Our discussion of these will focus on two issues. First, are these problems peculiar to fiscal policy making, or might they also apply to monetary policy? Second, do particular reasons for deficit bias imply varied characteristics for delegation, bearing in mind the diversity of Fiscal Councils already established?

Impatience

One possible explanation for deficit bias is impatience. This can work at the level of individuals or governments. Of course it is nearly always governments that take fiscal decisions, but we can distinguish between cases where governments simply carry out the electorate's wishes, and other cases where deficit bias arises from the way government interact with the electorate. An example of the former is where agents have hyperbolic discount functions rather than conventional exponential discount functions. (See in general Laibson (1997), and Rogoff and Bertelsmann (2010) for an application to deficit bias.) To use a simple analogy, if we don't think about it too much, we will be tempted to eat that extra pastry (a tax cut or additional spending today), but if someone (a Fiscal Council) reminds us that we are already overweight (debt is too high), we might not. Here a Fiscal Council could play a public information type role, although we also need an additional story about why the government is ineffective, reluctant or unable to play this role.

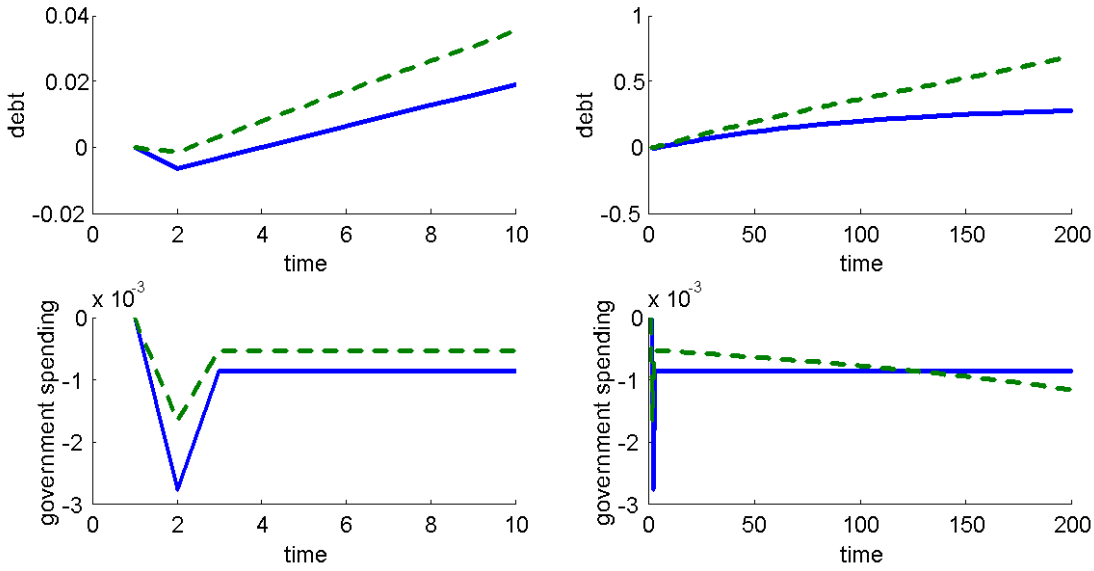
A more common explanation for deficit bias is that governments are more impatient than the electorate. As we noted above, a benchmark result for debt policy is that optimal steady state debt follows a random walk following any shock. What if the policymaker is a little more impatient than the private sector (i.e. not quite benevolent)? The following analysis is taken from Kirsanova, Leith and Wren-Lewis (2007), and uses the closed economy model of Leith and Wren-Lewis (2007).

Suppose we have a benevolent monetary policy maker, but a mildly myopic fiscal policy maker, who together play Nash. The fiscal authority's annual discount rate is approximately 6%, compared to 4% for the monetary authority and the private sector. We consider only one fiscal instrument, government spending, but deviations from the initial steady state in government spending are costly for welfare because of over/under provision of public goods. Figure 1 plots the reaction of the fiscal instrument and debt to a cost-push shock, and compares it to the same shock when the fiscal authority is benevolent.

The solid line represents the outcome when we have benevolent fiscal and monetary policy makers, and this outcome follows the random walk result, for reasons already discussed. The dashed line represents the outcome from a Nash game between fiscal and monetary policy makers, where the only difference between the two is that the fiscal authorities have a higher discount rate. In this case, debt steadily increases, and does not (and will not) reach a new steady state.[14]

[14] Although this solution is explosive (as inspection of eigenvalues confirm), the rate of increase in debt is less than the rate of discount, so welfare costs will still be finite. As a result, we can compute optimal paths, although with obvious qualifications related to linearisation. With stronger discounting, the increase in debt and other macro variables would explode more rapidly, and the social costs of this would be infinite.

Figure 1 Debt following a cost-push shock under optimal cooperative policy and under Nash with myopic fiscal policy makers*



Solid line = cooperation, Dashed line = Nash. *period=quarterly.

The reason is straightforward. Government spending needs to fall to provide funds to service the higher debt level. Impatience by the fiscal authorities means that they cut spending by less than is required to stabilise the debt stock. As Figure 1 shows, this will eventually imply that larger cuts are required, but mild myopia means that these future cuts are valued less than smaller cuts in spending in the short term.

Such a result might seem inevitable, once it is recognised that the socially optimal response with a non-myopic fiscal policy maker is a random walk in debt. However, this simple intuition ignores the actions of the other player. For the monetary authority, explosive debt is costly, because it is maximising social welfare. In principle, it can use monetary policy to influence the budget deficit to prevent the explosion in debt happening. In fact, even in the socially optimal case it does this to some extent (see Leith and Wren-Lewis (2007) for a detailed analysis of when and why this happens). However, Figure 1 shows that, when the fiscal authority is short-sighted, it is not optimal for the monetary authority to try and reduce interest rates *sufficiently to prevent* an explosion in debt. (Of course, any attempt by the monetary authority to do so would encourage an even looser fiscal policy, so it's a game they may not be able to win.)

Kirsanova, Leith and Wren-Lewis (2007) also show that the welfare costs (using, of course, the private sector's discount rate) of this shock when the fiscal policy maker is impatient is almost double that under a completely benevolent policy (i.e. with random walk steady state debt). However, a policy that imposed a very strict debt target (i.e. targets that had to be achieved quite

rapidly) could involve an even greater social loss. In other words, strict debt targeting to disarm a mildly impatient fiscal policy maker could produce a cure worse than the disease.

This example on its own cannot account for deficit bias, because following a debt reducing shock we would get a symmetrical outcome: debt would fall, but rather than stay low as the optimal policy would imply, it would continue to fall in a mildly explosive manner. However if we add to this the simple point that a mildly impatient government would also tend to favour tax cuts (or higher spending) now compared to higher taxes (lower spending) later, then if this preference was not penalised by the electorate (see below) we would get deficit bias.

Impatience by governments plays a key role in an alternative inflation bias story. This is based on a backward looking Phillips curve, and a myopic policy maker who goes for short term increases in output and inflation which over time shift inflation expectations towards the inflation bias level. This account of inflation bias receives less attention in the current academic literature than the one based on time inconsistency, as the New Keynesian Phillips curve has largely eclipsed its backward looking predecessor. With a forward looking Phillips curve, the amount of inflation bias is unaffected by the government's impatience: impatience only influences the ability of the government to commit to an inflation target (see Kirsanova, Vines and Wren-Lewis, 2009).

If the problem of deficit bias is caused by impatient governments, then a potential solution is to delegate decisions on the deficit to a more patient non-elected policy maker or institution. However, the problem might also be solved by the creation of a public watchdog, which could apply pressure on governments to avoid the outcomes of impatience. Kirsanova et al (2007) also show how, if the presence of a Fiscal Council could be proxied by an additional term in excess debt in the social welfare function (representing the political pressure it could bring to bear on the fiscal policy maker), then something very close to the benevolent outcome could be achieved. The watchdog has the beneficial outcome of making outcomes coincide with social rather than government preferences.

Impatience is just one example where the interests of the government may not correspond to those of the electorate. Politicians may be interested in spending money on prestigious projects or on particular interest groups, but it may be hard for the electorate to know when this is happening. An electorate that is aware of this possibility may put pressure on governments to cut taxes, to avoid money being wasted in this way (Alesina et al. (2008) and Andersen and Westh Nielsen (2010)).

Electoral competition

Implicit in this impatient government story is that the electorate is unable to elect a patient government. A story that looks similar but which does not involve impatience directly, and which has policy makers preferences perfectly aligned with those of a section of the electorate, concerns competition between two political parties in a democracy. Here parties can differ in their preferences either over types of public goods or over the size of government, but where these parties fully reflect the preferences of their section of the electorate. This set-up was originally formalized by Alesina and Tabellini (1990) and Persson and Svensson (1989). In this theory, governments do not fully internalise the cost of debt, because those costs may be borne by an opposing party if the government is not re-elected. Indeed, it may be advantageous for a

government to increase debt to constrain the actions of a future government with different political preferences. In this framework each party would show no impatience if it could be certain to be in power forever (its non-benevolence would instead be reflected in its preferences for particular public goods or the size of government). The apparently short sighted behaviour comes from the fact that it might not be in power in the future.

An issue with these original formulations is that they used real models, so that all government debt was in real terms. In reality most government debt is defined in nominal terms. This fact could fatally undermine these models of deficit bias if prices were not sticky, because governments could simply alter the level of debt by using surprise inflation (assuming monetary policy was not delegated to an independent central bank). If this were the case, debt cannot be used strategically as a state variable, so no debt bias will arise on this account. Of course inflation is not costless, so an important question is whether the combination of nominal debt and sticky prices can recreate the use of debt as a strategic variable.

Leith and Wren-Lewis (2009) suggest the answer is yes, but the size of the resulting deficit bias may not be that large. Instead the main costs involved in having competing political parties appears to involve a political business cycle, where in particular alternating between parties that like big or small government causes significant costs to social welfare through cyclical movements in inflation and output designed to influence the level of debt. However, this is not an issue that Fiscal Councils have been set-up to deal with. Perhaps the best that can be said is that more research on the impact of competing parties within the context of models with nominal debt and sticky prices needs to be done.

Common Pool Theory

An alternative account of deficit bias is common pool theory (see, for example, Von Hagen and Harden (1995), Eichengreen et al (1999) and Krogstrup and Wyplosz (2006)). As public projects or tax cuts may favour relatively small groups, those groups lobby for these with insufficient regard to the full budgetary costs now as well as in the future. Often common pool theories focus on the fact that many decision makers (e.g. spending ministries) may be involved in formulating budgets, and these decision makers fail to internalise the overall costs of higher spending and debt. One of the potential strengths of this theory is that it suggests a direct link between different types of institutional set-up within government, and the extent of deficit bias. It is also unique to fiscal policy, as there is no equivalent problem if the government sets monetary policy. It also suggests why delegation of advice and evaluation may be effective: such advice, and the political authority that goes with it, may be enough to give sufficient additional power to the finance ministry. (The argument is similar to the case of an impatient government above.)

However, it might be a mistake to conclude from theories of this kind that corrections to the balance of power within governments could on their own solve the problem of deficit bias. Over the last decade the UK has had a period in which the finance minister has had unprecedented and unbroken power, has imposed strict rules on the behaviour of debt, within a system of government in which the finance ministry already had considerable authority. Despite this, there is a general view outside government that the structural deficit increased in such a way that those rules would have been broken even if the credit crunch had not happened. (See, for example, recent Green

Budgets published by the Institute for Fiscal Studies, or National Institute Economic Reviews published by NIESR.)

Informational Problems

Another class of theories of deficit bias focus on informational problems. One example is over-optimism about future growth, either by the electorate (who elect a government that reflects this optimism), or by the government relative to the electorate. This over-optimism about future growth can lead to deficit bias because future tax receipts will not be as high as is hoped. Politicians may overestimate their ability to influence the growth rate, and may pressurise otherwise more realistic civil servants to produce forecasts based on this over-optimism. If this is the source of deficit bias, then delegating just the forecasting process to an independent agency would be appropriate. (There are parallels with an argument sometimes put forward for why, in monetary policy, a government would target output above the natural rate. Rather than standard explanations related to tax or monopoly distortions, it could be that governments overemphasise their ability to increase the natural rate.)

Maskin and Tirole (2004) talk about the danger of elected representatives 'pandering to popular opinion'. Although this phrase is often used, it appears a little paradoxical, as we would normally want governments to reflect public opinion. However, a key point about representative democracy is that the electorate normally delegates decision making to representatives, whose job it is to take 'good decisions' that the individual elector has neither the time nor probably the competence to make. In this sense, representative democracy presumes lack of information on the part of the electorate, and this lack can be exploited by government. Can this idea be applied to debt policy?

In the core models that macroeconomists now use, a government that cut taxes in a way that led to permanently higher debt would be penalised by the electorate, because the electorate would calculate that the tax cut reduced social welfare. Although we might hope that this were generally the case, many might suspect that in reality it is not always so (Debrun et al, 2009, but see Alesina et al, 1998, and Feld and Kirchgassner (2001)). It may be possible to construct models where specific tax cuts gain votes even though all agents are rational and fully informed, but it may also be that all agents are not fully rational and informed. This may be an example where pandering to popular opinion produces bad government. Makin and Tirole (2004) note "Nonaccountability is most desirable when (a) the electorate is poorly informed about the optimal action, (b) acquiring decision relevant information is costly, and (c) feedback about the quality of decisions is slow." While the first two probably apply to any macroeconomic policy decision, the third is more relevant to fiscal than monetary policy, given the longer time frame involved.

However, the implications of this are not necessarily to remove these decisions from elected representatives. It may instead be enough to improve the information available to the electorate (i.e. to negate point (c) in the list above). If the electorate is made aware, by a Fiscal Council, that a tax cut is not a free lunch, it may make a more rational, informed judgement. It has been suggested that the requirement in the Netherlands that parties submit their budget proposals to evaluation by the Central Planning Bureau has had the effect of reducing attempts to 'bribe the electorate' before an election.

Exploiting future generations

The second argument for delegating decision making to unelected representatives examined by Maskin and Tirole (2004) was that it might avoid minorities being exploited. In the case of fiscal policy there is an obvious group who could play the role of a minority here (although only a minority in the sense that they do not have a vote), and that is children and the unborn. If the existing electorate does not act as if they care sufficiently about future generations, then there is a clear motive for encouraging the government to behave in the mildly myopic manner illustrated in the simulations above. Debt allows the current generation to take resources from future generations (Musgrave, 1988). This aspect of fiscal policy is almost completely absent from monetary policy.

Why would delegating fiscal decisions to unelected representatives help avoid this intergenerational transfer? Maskin and Tirole (2004) argue that officials want to leave a legacy. In that sense, they will care about what future generations will think of them. This motive does not apply to the current generation as a whole, because each member of a generation is small, and therefore their contribution to a generation's legacy is inconsequential. Indeed, we hardly ever talk about the legacy of a generation.

This argument suggests complete delegation of decisions over government debt and deficits. If each generation is selfish, delegation of advice alone will do nothing to prevent future generations being exploited: indeed, by making clear that such exploitation is possible, it could encourage it. Delegation of advice alone would only make sense if agents are not selfish when the full consequences of their behaviour are made apparent to them, but are inclined to allow more selfish motives to prevail otherwise.

Different forms of delegation

With these many different potential sources of deficit bias, it is perhaps not surprising that different forms of delegation have been tried in different countries. The need to produce independent forecasts is emphasised for the most recent Fiscal Council to be formed, the Office for Budget Responsibility (OBR) in the UK. The new government blamed overoptimistic forecasts by their predecessors for the large increase in UK debt, and so the responsibility for producing the budget forecasts has been delegated to the OBR. In contrast, the Swedish Fiscal Council does not produce forecasts, largely because the arm of government that produces forecasts in Sweden is seen as sufficiently independent. Instead it has, among other things, commented on the appropriateness of the government's fiscal rules, and the scope for discretionary countercyclical fiscal policy in the recession. It is not clear whether the OBR in the UK will do either of these things.

However, as we noted earlier, no Fiscal Council has the power to impose deficit targets on the government. In contrast, delegation of monetary policy has not involved advisory bodies or watchdogs, but has instead involved giving control of monetary policy to central banks, subject often to mandates that range from the fairly precise (a government determined inflation target) to the vague. Could this difference reflect different motives for delegation in each case?

An answer will depend on which causes of deficit bias we focus on. (Let us assume, for the sake of argument, that the rationale for central bank independence reflects the problem of inflation bias, as reflected in the academic literature.) If the only cause of deficit bias was over-optimism in

the production of long term forecasts, then as we noted above the only delegation required involves forecasting: the level of the deficit can still be set by government. More generally, informational problems causing deficit bias will tend to suggest independent watchdogs rather than complete delegation. However, if we believed that deficit bias was the result of deliberate exploitation of future generations by the present, complete delegation of deficit policy would be a more natural response.

The suggestion often made is that even indirect control over taxation is too sensitive to entrust to a non-elected body: as the slogan puts it, 'no taxation without representation'.[15] The problem with this argument is that it should also apply to monetary policy. This is because changes in interest rates can create redistributions in income that may be just as large as those that result from changes in taxes. Changing interest rates, when this was done by governments, was a very political decision. The fact that there are roughly as many gainers as losers from such changes seems beside the point. (If we take an intertemporal view, the same is true of tax changes.)

An alternative reason why it is easier to countenance complete delegation of monetary policy than the macroeconomic aspects of fiscal policy may come from comparing the different objectives, rather than the instruments, of that policy. Alesina and Tabellini (2007) discuss some of the criteria for successful delegation. One of these is that there should be a broad consensus on what constitutes 'sound policy' in any particular domain. With monetary policy, there is a broad consensus that inflation should be on average low, and in certain cases the inflation target is set by governments. [16]There is of course a preference choice about how much inflation or output should be allowed to vary in the short run, but the scope for choice here may be small (see Bean (1998)), and may be dominated by politically neutral issues involving competency in forecasting and assessing the impact of interest rate changes.

In the context of public debt, the extent of consensus seems to be much more limited. There is clear agreement that debt should follow a sustainable path i.e. that fiscal actions (rather than inflation) should ensure that the government's intertemporal budget constraint holds. However, there is less agreement on what an optimal path for debt might be. Should steady state debt follow a random walk, as the literature cited above suggests, or should there be a target for debt? If the latter, what should that target be? This lack of agreement makes delegating *decisions* over debt problematic, but it increases the need for good independent *advice and evaluation*. It is to these issues that we now turn.

[15] This argument has been forcefully made to me by MPs of the UK Treasury Select Committee when I proposed that they consider delegating certain fiscal powers.

[16] Although low inflation is generally agreed to be good, there is less consensus about where the major costs of inflation come from. There is a good deal of debate about which inflation measure should be targeted, with a number of considerations suggesting that output rather than consumer price inflation should be used (Kirsanova et al, 2006).

4. Debt targets

Even if we take our end-point as just before the recent recession, government debt across the OECD area roughly doubled over the previous 30 years. To my knowledge, no one has suggested a reason why this trend rise in debt might be even close to an optimal policy. This suggests that there can be general agreement that some paths for government debt are undesirable. Another way of saying this is that there is general agreement that deficits should be 'sustainable'.

However, there are an infinite number of sustainable debt profiles. In this section I want to suggest that although in theory we know what factors might allow us to narrow down our choice, we are a long way from being able to quantify what the optimal debt profile might be. In other words, an optimal path for debt and deficits probably exists, but we have very little idea what it is. This is rather different from monetary policy, where there is a broad consensus about what the medium term inflation rate should be, and we like to think we understand the short term trade-offs involved in staying close to this path.

In section 1 we briefly outlined the rationale behind the steady state random walk debt result. One obvious reason for qualifying this model of optimum debt is if debt is sufficiently high that it attracts a default premium in order to be financed. This is clearly a major concern at the moment. However, for most countries this situation is also hopefully unusual: most of the time we would want debt levels to be well below levels that might attract a default premium. Indeed, as Debrun et al (2009) note, it is the discontinuous nature of market discipline on excessive debt that helps allow the problem of deficit bias in the first place.

However, the possibility of default may play a more influential role if we believe that occasionally the economy will be hit by large negative shocks of the type just experienced, particularly if we require an expansionary fiscal policy to compensate for hitting a zero bound for interest rates in such situations (Wren-Lewis (2010)). In such circumstances we would want to ensure that in normal times debt was well away from any level at which it might attract a default premium, to avoid getting pushed into that area if a large negative shock hit.

Asymmetric shocks, or countercyclical action when a zero bound for interest rates are hit, will imply a departure from the random walk result in any case. As Mash (2010) shows, standard tax smoothing arguments will imply the need for debt to fall in normal times in such situations.

Besides default, the most widely cited reason to ignore the random walk steady state debt result is overlapping generation effects on capital. In models like Schmitt-Grohe and Uribe (2004) and Benigno and Woodford(2003), consumers are Ricardian, and so any impact on capital only comes through higher distortionary taxes. In a two period overlapping generations model, where the second generation is retired and all generations are selfish, we get a very different result. The stock of capital in that model is simply a by-product of the need for the young to save for their retirement. Government debt substitutes that role, so any increase in government debt will crowd out capital one for one. In addition, lower capital will reduce first period wage income, so savings will fall further. Although lower capital will raise interest rates, if utility is log this will have no impact on the amount saved.

In an OLG model, the level of capital without any government debt is unlikely to be optimal. In principle we could have too much capital (dynamic inefficiency), although the general view is that this is unlikely. As a result, the extent of crowding out of capital by debt implied by the simple two period OLG model is substantial. It therefore follows that a clear candidate for a debt target would be the level of debt that got us as close to the optimum (golden rule) level of capital as possible. Once again, that target could well involve the government having assets rather than debt. However, getting there would impose a net cost on the transition generations, which is why we do not describe having too little capital as dynamic inefficiency.

Even if we accept that current generations do not care at all about future generations, the assumption that the period of retirement is as long as the period of work is too extreme. Once we allow agents to receive some wage income in the second period, then any change in interest rates will have a mitigating impact on savings. We can see this most clearly in an alternative overlapping generations model, due to Blanchard and Yaari. In the model of perpetual youth, there is a constant probability of death, but agents continue to work in every period of their lives. Aggregate consumption is given by

$$C_t = (p + \theta)(H_t + A_t)$$

where p is the probability of death, θ is the rate of time preference, A are financial assets, and H is human capital given by

$$\frac{dH_t}{dt} = (r_t + p + \alpha)H_t - w_t$$

where r is the real interest rate, α is the rate of decline of individual income, and w are wages. α>0 allows us to crudely capture retirement in this model by allowing wage income to decline with age.

In a very simple closed economy version of this model, the aggregate steady state relationship between aggregate consumption and asset holding is given by the following expression:

$$C(r + \alpha - \theta) = A(p + \theta)(p + \alpha)$$

For given parameters, if real interest rates and consumption were unchanged (which they will not be), any increase in debt will crowd out capital one for one. As a result, consumption will actually fall, amplifying this crowding out, just as it did in the two period model. However, any increase in interest rates will increase the overall demand for assets, providing a countervailing effect.

Consider the simple calibration outlined in Table 1. (The equations above are supplemented by the government's budget constraint

$$\frac{dB_t}{dt} = r_t B_t - G_t + T_t$$

and we have

$$\frac{dK_t}{dt} = F(K_t) - C_t - G_t$$

together with an equation that says assets equal capital plus government debt.) Consider first the standard calibration with this model, with α =0. We choose a capital output ratio of four, which with 5% annual depreciation and 4% impatience implies a real interest rate of 5%. We start with a stock of debt equal to 100% of GDP. Now reduce government debt to zero. Interest rates fall to 4.8%, but

this is sufficient to reduce desired assets by almost the decline in government debt itself. As a result, capital increases by only a little over 3%, and steady state consumption rises by just 1%. This gain is still worth having, but it is much less than the gain implied when we had more than one for one crowding out of capital by debt.

If we raise α to 3% a year to proxy the effect of retirement on income, then the impact of abolishing debt on steady state consumption roughly doubles. With this parameterisation, however, capital may exceed the consumption maximising level, so we would not necessarily want to reduce debt so much. What these simple calibrations show is that the extent of capital crowding out is very sensitive to the OLG model we use, and its parameterisation.

Table 1 Calibrated Blanchard Yaari Model

	Base calibration	Impact of abolishing debt
Capital stock	1	3.13%
Output	0.25	1.24%
Government Debt	0.25	-0.25
Private consumption	0.15	1.02%
Government consumption	0.05	0
Real interest rates (pa)	0.05	-0.002
Depreciation rate	0.05	0
Impatience	0.04	0
Probability of death	0.02	0

In reality we probably think that people do leave bequests in order to increase their children's utility, but perhaps not to the extent implied by the representative agent model.[17] (This may not just be because agents are not caring enough, but also because bequests may be taxed, and the proceeds of this tax do not go only to new generations.) As a result, government debt probably does crowd out capital, but by an amount that remains very uncertain. We are therefore a long way from being able to pin down any value for the optimum level of debt, even in the confines of these very simple cases where there is no government capital, no future commitments associated with pensions etc.

Even if we can narrow down what the long run optimal debt level might be, there is the additional question of how quickly do we try and approach it. Tax smoothing considerations still apply, so any approach is likely to be gradual, but what exactly is gradual? This will depend on just how costly departures from the optimum level of capital are. These are complex issues, which research has only begun to address.[18] As a result, there is at present little consensus as to what constitutes 'sound policy', which was one of the requirements Alesina and Tabellini (2007) suggest for the successful *delegation of decisions*. However, the same argument can be used to make a positive case for *delegation of evaluation and advice*. It will be very difficult for the public alone to judge how successful a government's fiscal policy at the macroeconomic level has been. (As we noted at the start of this section, there are some policies that are not optimal given current knowledge.) Even if governments are completely benevolent, a Fiscal Council could play a useful role

[17] If agents do, collectively, fully internalise the utility of future generations, this does mean that this utility is discounted at the rate of time preference. It is far from clear whether society should accept this discounting of future generations' utility, as the debate on climate change has highlighted.

[18] An attempt to do so is contained in the 2010 long term budget projections by the CBO, the US Fiscal Council.

in helping to establish this fact, and assess whether policy has been appropriate given the shocks that have hit the economy. Optimal fiscal policy, perhaps more than optimal monetary policy, is unlikely to be able to be embodied in simple rules. This is one of the main arguments that Kirsanova, Leith and Wren-Lewis (2007) put forward for establishing Fiscal Councils. (See also Wyplosz, C (2005), and Debrun et al, 2009.)

While helping the electorate evaluate government's macroeconomic fiscal decisions (and thereby improve the quality of those decisions) is a key role for any Fiscal Council, such a body could also play a useful role in helping stimulate and summarise research. One of the striking features of delegated monetary policy is how well central banks network in processing academic research, but at present there is no formal apparatus to network Fiscal Councils. A delegated body may be preferable to government in this role because an independent body would be better able to take an objective view of research, and for this reason researchers may be happier to undertake research commissioned by a Fiscal Council rather than government.

5. Implications for Fiscal Councils

The previous sections suggested two main points. First, although explanations for deficit bias were various (and differed significantly from at least the standard explanation for inflation bias), they often suggested delegation of advice and evaluation rather than delegation of decisions. In some contexts there might be an argument for the delegation of forecasts. Second, the lack of any consensus over what optimal debt policy might be would make the delegation of fiscal decisions problematic, but strengthens the case for the delegation of advice.

It would be a fascinating exercise to see how these two arguments compare to the practice of how existing different Fiscal Councils operated, but that is a task well beyond the scope of this paper. Instead I will look at just one example, which is the newly formed Office for Budget Responsibility in the UK. This example is interesting in part because its initial structure appeared to borrow from the model of monetary policy delegation. It also raises some potential tensions between the delegation of forecasting and policy advice.

The Conservative Party first proposed establishing an Office for Budget Responsibility (OBR) in 2008. Before the election in 2010, an 'interim' OBR was established, which would provide a forecast of the government accounts immediately after the election, and subsequently a post-Budget forecast after an initial 'emergency' budget. At the time of writing, discussions are in progress on how the 'permanent' OBR will be structured, but its role in providing the governments forecasts looks set to remain.

A key task of the OBR is to evaluate whether the budget has a better than 50% chance of achieving a forward looking mandate set by the Chancellor. This mandate involves eliminating the 'structural' budget deficit within 5 years. Such an evaluation is directly implied by the OBR's own post-budget forecast (which is published at the same time as the budget proposals are announced). However, for the moment, there is no clearly defined role for the OBR to comment on the desirability of achieving the Chancellor's mandate, or whether this mandate is an appropriate goal for policy.

There are obvious parallels with monetary policy delegation here, with of course the difference that the government rather than the OBR decides the budget. We could equate the Chancellor's deficit mandate with the inflation target. The OBR comments on the chances that they will be met, given its own projections of the public accounts in the light of reasonable forecasts for the economy. The three leading members of the OBR are even called a 'Budget Responsibility Committee', mirroring the Monetary Policy Committee of the Bank of England (although, unlike the MPC, with no 'external' members). Just as the Bank of England takes the inflation target laid down by the UK government as given, so the OBR does the same for the deficit mandate.

It should be clear from the discussion above that such parallels are misleading. Section 1 argued that the inflation target could be seen as an ultimate goal for monetary policy, whereas targets for the deficit were a means to an end. Section 3 showed that there was very little consensus about what optimal paths for government debt (and hence deficits) might be. As a result, there was a clear role for a Fiscal Council to provide advice on desirable deficit and debt paths, and to evaluate any goals for these set by the government. As the Institute of Fiscal Studies has commented (Chote et al, 2010), 'it would seem appropriate (and helpful for external credibility) if an OBR were to assess

publicly whether it believes any changes to the rules it is tasked with policing are consistent with the ultimate objective of long-term sustainability'. Of course, 'long-term sustainability', taken literally, is a very weak criteria: debt may be sustainable at very high levels, even if it crowds out capital and reduces national prosperity. Let us assume what is meant here is a more general aim of finding paths for debt that improve social welfare.

I believe it is very important that any Fiscal Council does comment on the desirability of any debt or deficit targets (or more generally, any fiscal rules) that the government sets. This is because the optimality or otherwise of particular fiscal rules is to a considerable extent a technical matter, involving macroeconomic theory and evidence. The last few decades in the United States suggests that politicians may not be very good at evaluating such technical advice, choosing instead what is politically convenient. (Krugman (1994) documents the treatment of the Laffer curve under Reagan. The belief that cutting taxes increases revenues still appears to be well entrenched within the Republican party. This may be an example of 'pandering' as discussed in Maskin and Tirole (2004).) A Fiscal Council can have a central role in evaluating these technical issues, and providing a politically neutral public account of them.

However, for a policeman to comment on the desirability of the laws they are employed to enforce can cause difficulties. In a political context, comment can be misread as criticism. Again the current UK debate is indicative. One of the dividing lines between the two main political parties during the election was the timing and speed of reductions in government debt. (Both agreed debt should come down, and both were reluctant to spell out a complete menu of how this would be achieved in terms of specific taxes and items of spending.) If a UK Fiscal Council were already in place, then its comments on this issue would be highly political.

But perhaps this hypothetical example is internally inconsistent. If a UK Fiscal Council were already in place, and had given advice on the speed and timing of debt reduction, it might not have become such a central issue of political debate. Or perhaps its advice, although it might have clarified the debate, would still leave plenty of room for legitimate political argument. In the absence of a Fiscal Council, the public debate has been at a fairly basic level.[19]

A similar point can be made in the context of a member of a monetary union. There is no analytical macroeconomic reason why fiscal policy cannot both be used for countercyclical purposes and long run control of debt be maintained (although many coordination issues arise, which have been discussed in a large literature), but the public debate often confuses the two. A Fiscal Council, by setting out the issues clearly, could substantially improve the public debate.

There are good reasons for thinking that it is possible to give advice both on whether government targets will be achieved, and whether those targets are sensible, not least from the experience of Fiscal Councils that already exist. (See, for example, the 2009 Reports of the Swedish

[19] Evidence for this is the recent 'battle of economists letters': an initial letter from some 20 or so well respected, mainly academic, economists largely supporting the Conservative Party's line was followed by two letters from around 80 others arguing the opposite. The debate could be summarised as cuts now would hurt the recovery, but cuts later would risk financial ruin. Hopefully the existence and advice of a Fiscal Council would allow a rather deeper debate. In this context we can note that the Swedish Fiscal Council argued in its 2009 report that there was more scope for countercyclical fiscal action during the recent recession.

fiscal Council.[20]) These two types of advice do not have to be given at the same time. The Fiscal Council can also make it clear where the political aspects of its advice come in (such as any implications for intergenerational equity, for example), leaving plenty of scope for additional political judgement. It is also worth noting that, although in the UK the inflation target is chosen by the government without formal advice from the Bank of England, elsewhere the (often implicit) inflation target is chosen by the central bank. In the case of New Zealand, one of the pioneers of inflation targeting, the inflation target is 'jointly negotiated' between the central bank and government.

Furthermore, it seems unlikely that a policy of not commenting on the desirability of any government mandate is tenable in the longer term. In the UK, the mandate is the elimination of the 'structural' deficit within 5 years. Here structural in effect means cyclically adjusted. Suppose, a year or so before the five years is up, some non-cyclical event occurs which temporarily reduces tax revenues. As a result, without corrective fiscal action the mandate would not be met. In such circumstances, it would seem sensible to largely ignore this outcome, and take little or no corrective fiscal action, allowing the deficit to temporarily rise. If the government did this, would it really want the OBR to just report that the mandate had not been fulfilled, giving no further comment on whether this was sensible or not?

As we have already noted, the OBR is tasked with providing the pre and post budget forecasts because of a belief (which is not just confined to the Conservative Party) that previous government forecasts were over-optimistic because of pressure from politicians. In 1997 the new Labour government, and its Chancellor Gordon Brown, set out two fiscal rules for macroeconomic policy towards debt and deficits. In some ways these rules represented an improvement on those operated by the European Commission as part of the Growth and Stability Pact (Wren-Lewis, 2003), and subsequent revisions to this pact can be seen as narrowing these differences (although they may also have weakened its effectiveness: see Beetsma and Debrun (2007)). However, by the middle of the last decade there was a growing consensus, led by the Institute for Fiscal Studies and the National Institute for Economic and Social Research, that government fiscal projections were becoming over optimistic, allowing growth in public expenditure that was not sustainable in the long run. As a result, they suggested, the rules would soon be broken. The credit crunch arrived before we could be certain that these suspicions were correct, but this view that the government fell victim to wishful thinking in making its own forecasts (and that future governments may do the same) motivates the strong role for forecasting in the OBR. (The UK experience here is almost certainly not unique: see Jonung and Larch (2006).) In any case, as we noted above, it is very difficult for a Fiscal Council to make a meaningful assessment of the sustainability of government plans without having some forecasting expertise.

If we accept all this, a choice nevertheless remains. One possibility is to have the Fiscal Council replace the forecasts previously done by government. That is literally what has happened in the UK. An alternative possibility would be to let the finance ministry continue to produce pre and post budget forecasts, but allow the Fiscal Council to produce its own alternative projections as a check on these. This is a choice between delegation of control and delegation of evaluation.

[20] http://www.finanspolitiskaradet.se/download/18.75eae27c1223be52adb800042551/Summary+2009b.pdf

One problem with the second alternative is that it involves a great deal of duplication.[21] In addition, some fiscal expertise is bound to remain within government, and the Fiscal Council might find it difficult to access this if it was involved in producing a competing forecast. However, there are clear arguments going in the opposite direction, the most important of which concerns independence. For delegation of forecasts to have any point, the delegated body must be independent of government. A body whose only function is to produce budget forecasts, which inevitably involves closely working with finance ministry officials, may find it difficult to achieve or maintain independence. There will certainly be times during which its independence will be questioned, as events following the UK's emergency budget showed. Thus there are arguments on both sides, and there are also examples of each case among existing Fiscal Councils. (The CPB in the Netherlands produces the government's forecast, but the CBO does not.) What is clear is that a Fiscal Council that has budget forecasting delegated to it must work hard to ensure its independence.

Assessing and fostering independence has been much discussed in delegating monetary policy to central banks, and many similar concerns apply to Fiscal Councils (such as the length of tenure of those running the institution). Some issues are more important for Fiscal Councils, such as the security of funding from aggrieved governments. In practice many existing fiscal councils have not had a problem establishing their independence from government, because they soon found themselves publishing evaluations of government policy that were seen, by their governments at least, as critical. This suggests that one way of establishing independence for a Fiscal Council that provides official budget forecasts is that it also plays an evaluation role. Another possibility is suggested by the CPB, which as well as providing the forecasts for government, also offers to cost opposition policies before an election, an offer that is normally taken up. Finally the CPB also notes, on its website, that "In the end, our independence is guaranteed best by the scientific quality of the work we accomplish." Scientific quality will never be established through the production of short term forecasts. Instead, it requires analysis of longer term trends in the economy.

The UK government, before the creation of the OBR, published fiscal projections for the next 50 years, and this seems like an appropriate horizon for assessing sustainability[22]. As the previous section suggested, ultimate targets for government debt may be quite low (or even negative), but they should also be reached gradually. The latest projections published by the CBO go to 2080. Only be going well beyond a five year horizon do the liabilities implied by public health care and pension schemes become apparent. This suggests that it may be a misdirection of resources for a Fiscal Council to spend much time undertaking short term macroeconomic forecasts, although it clearly should spend time examining the fiscal implications of any projection. It is highly unlikely to be better at forecasting short term GDP or inflation than the central bank, and it lays itself open to the danger of having its forecasting ability ridiculed as projections for short term government deficits turn out to be wide of the mark. It might be wiser to use the short term forecasts of others. One obvious possibility, but not the only one, is to use the central bank's own forecast. Given the public

[21] Under the previous government, forecasts were audited by the National Audit Office. However, there is a clear difference between deciding whether a forecast is reasonable (because reasonable forecasts are a set greater than one), and deciding what the best forecast is. The latter requires considerably more resources.
[22] Particularly if any assessment is to include liabilities implied by pensions provisions.

interest in short term forecasting, it would be wise if the Fiscal Council avoided getting distracted by that interest.

However, central to the Fiscal Council's views about the long term sustainability of debt will be its assessment of the level and growth of productive potential. It would equally be a mistake, in my view, for the Council to delegate that assessment to others. As these assumptions are so critical, the Council needs to take ownership of its views on this matter. Equally, it will need to make its own assessments of the medium term levels of taxes that go with these output projections, and also what government plans imply for public spending in the medium term. If the resources are available, these projections should be made in house.

So it would make sense for the Fiscal Council to use the short term forecast of others, but make its own medium to long term projections. Are these two goals contradictory? In principle, they are not. Unless we think that hysteresis is endemic and important in macroeconomic behaviour, then it is possible to assess medium term levels of most key macro variables without having any view of the path taken to get there. In essence, we require a supply side forecast for the medium term, and we do not need to worry about short term movements in demand. The recent recession is probably an exception to that rule, but hopefully such large demand shocks will not happen too often.

One variable which is of course hysteretic, in that its medium term level depends on short term developments, is the level of public debt. For this reason alone, the Fiscal Council cannot avoid the need to make some assumptions about the short term (or more specifically, the extent and duration of any short term deviations from its assessment of medium term trends). However, it should not be too difficult for the Council to splice on an outside assessment of the strength and duration of the cycle to its own medium term projections. Given the uncertainty involved in short term deficit projections, it would also seem wise to examine alternative forecasts for this right from the start.

It therefore seems important that the 'permanent' OBR should have the mandate and resources to give advice and conduct evaluations of government goals for debt and deficits as well as providing the government's budget forecast. Its resources should focus on the assessment of medium term trends, and not short term forecasts.

5. Conclusions

Comparing monetary and fiscal policy delegation is useful, if only because it shows in what ways an over simplified equating of the two may be misleading. Take for example the reason why we might want to delegate policy, or policy advice, to an independent body in the first place. Section 2 argued that explanations based on time inconsistency, so popular for monetary policy, do not simply carry over to fiscal policy. Deficit bias may have rather different causes from inflation bias, as Section 3 detailed. There is also much less consensus about what appropriate targets are for government debt than for inflation. This alone may justify maintaining political control over deficit decisions, while being able to completely delegate monetary policy decisions.

Section 4 examined what factors might be involved in trying to assess appropriate paths for government debt and deficits. The benchmark theory, implying a random walk in steady state debt, strongly indicates why any adjustment in debt should be slow and conditional on shocks hitting the economy, factors which themselves increase the need to a Fiscal Council as an embodiment of a longer term view. However this theory assumes households who are effectively infinitely lived, which is unlikely to be realistic. Overlapping generation models suggest debt will crowd out capital in the longer run, although how large this effect is depends on the model being used. Unless the stock of capital in the economy is above optimal levels, this suggests that optimal debt stocks are likely to be low, and possibly negative. Being able to respond to hitting a zero nominal interest rate bound by using countercyclical fiscal policy without worrying about default also suggests the need for a low ultimate objective for government debt. However the benchmark random walk model would still suggest that the approach to this ultimate objective should be slow and erratic.

Section 5 brings this discussion to bear on what a Fiscal Council might do, with particular reference to the UK's new Office for Responsibility. If fiscal forecasts undertaken by government are thought to be persistently over-optimistic, there is a case for delegation, although it is not clear whether the fiscal council should provide the forecast used by government, or whether it should just evaluate that forecast by producing its own. However, a Fiscal Council that just provided the government's forecasts will find it difficult to establish both independence and authority. This paper has suggested there are strong reasons why an independent body should also provide advice on and evaluate government debt policy, an activity which would help establish both credibility and independence.

References

Alesina, Alberto and Guido Tabellini (1990) "A Positive Theory of Fiscal Deficits and Government Debt", *Review of Economic Studies* 57: 403-14.

Alesina, A. and Tabellini, G. (2007) Bureaucrats or politicians? Part 1: A single policy task. *American Economic Review* 97: 169–179.

Alesina, A., Perotti, R. and Tavares, J. (1998) The political economy of fiscal adjustments. *Brookings Papers on Economic Activity* 1: 197–248.

Bean C. 1998 "The new U.K. monetary arrangements" *Economic Journal* 108: 1795-1809.

Beetsma, R.M.W.J. and Debrun, X. (2007) The new Stability and Growth Pact: a first assessment. *European Economic Review* 51: 453–477.

Benigno, P. and M. Woodford (2003), "Optimal Monetary and Fiscal Policy: A Linear Quadratic Approach", NBER Macroeconomics Annual.

Calmfors, L. (2010a), The Swedish Fiscal Policy Council – Experiences and Lessons. Paper to Conference on Independent Fiscal Policy Institutions, March 18-19, Fiscal Council Republic of Hungary, Budapest.

Calmfors, L. (2010b), The Role of Independent Fiscal Policy Institutions, Report to the Prime Minister's Office in Finland.

Chote, R, Emmerson, C and Shaw, J (eds) Green Budget 2010, Institute for Fiscal Studies

Debrun, Xavier, David Hauner, and Manmohan Kumar (2009), "Independent Fiscal Agencies", *Journal of Economic Surveys* 23(1): 44-81, February.

Eichengreen, B., Hausmann, R. and von Hagen, J. (1999) Reforming budgetary institutions in Latin America: the case for a national fiscal council. *Open Economies Review* 10: 415–442.

Eser, F, Leith, C and Wren-Lewis, S (2008), When Monetary Policy is all you need, Oxford University Discussion Paper No 430.

Feld, L.P. and Kirchgassner, G. (2001) 'Does direct democracy reduce public debt? Evidence from Swiss municipalities.' *Public Choice* 109: 347–370.

Jonung, L. and Larch, M. (2006) Improving fiscal policy in the EU: the case for independent forecasts. *Economic Policy* 21: 491–534.

Kirsanova, Tatiana, Vines, David, and Wren-Lewis, Simon (2009) "Inflation Bias with Dynamic Phillips Curves and Impatient Policy Makers," *The B.E. Journal of Macroeconomics*: Vol. 9

Kirsanova, T, Leith, C and Wren-Lewis, S (2006), Should Central Banks Target Consumer Prices or the Exchange Rate?, *Economic Journal*, vol 116 pp 208-231

Kirsanova, Tatiana , Campbell Leith and Simon Wren-Lewis (2007), "Optimal Debt Policy, and an Institutional Proposal to help in its Implementation", in J. Ayuso-i-Casals, S. Deroose, E. Flores, and L.

Moulin (eds) "The role of fiscal rules and institutions in shaping budgetary outcomes", European Economy Economic Papers 275, April.

Kirsanova, T, Leith, C and Wren-Lewis, S (2009) Monetary and Fiscal Policy Interaction: The Current Consensus Assignment in the light of Recent Developments, *Economic Journal,* vol 119 pp 482-496.

Krogstrup, Signe & Wyplosz, Charles, 2006. "A Common Pool Theory of Deficit Bias Correction," CEPR Discussion Papers 5866.

Krugman, P. (1994), Peddling Prosperity

Lambertini, L (2007) Optimal Fiscal Policy in a Monetary Union, mimeo

Lebrun,I (2007) "Fiscal councils, independent forecasts and the budgetary process: lessons from the Belgian case" in J. Ayuso-i-Casals, S. Deroose, E. Flores, and L. Moulin (eds) "The role of fiscal rules and institutions in shaping budgetary outcomes", *European Economy Economic Papers* 275, April.

Leeper, E.M. (2009), Anchoring Fiscal Expectations, Reserve Bank of New Zealand Bulletin, forthcoming

Leith, C and Wren-Lewis, S (2007), Fiscal Sustainability in a New Keynesian Model, Oxford University Discussion Paper No. 310

Leith, C and Wren-Lewis, S (2009), Electoral Uncertainty, the Deficit Bias and the Electoral Cycle in a New Keynesian Economy, Oxford University Discussion Paper No. 460

Maskin, E and Tirole, J (2004) The Politician and the Judge: Accountability in Government The *American Economic Review*, Vol. 94, No. 4. (Sep., 2004), pp. 1034-1054.

Mash, Richard (2010) 'Tax smoothing and asymmetric shocks' mimeo.

Musgrave R. 1988, `Public Debt and Intergenerational Equity', in K. Arrow and M. Boskin, (eds) MacMillan, The Economics of Public Debt, London.

Persson, T. and L. E. O. Svensson (1989), "Why a Stubborn Conservative would Run a Deficit: Policy with Time-Inconsistent Preferences", *Quarterly Journal of Economics*, Vol. 104, pp 325-345.

Schmitt-Grohe, Stephanie and Uribe, Martyn (2004), Optimal Fiscal and Monetary Policy Under Sticky Prices, *Journal of Economic Theory*, vol 114 pp 198-230

Von Hagen, Jürgen, and Ian Harden (1995) "Budget Processes and Commitment to Fiscal Discipline", *European Economic Review* 39(3): 771-779.

Wren-Lewis, S (2003), Changing the rules, *New Economy*, vol 10 pp 73-78

Wren-Lewis, S (2010) 'Macroeconomic Policy in light of the Credit Crunch: the return of counter cyclical fiscal policy?' *Oxford Review of Economic Policy*, forthcoming

Wyplosz, C (2005) "Fiscal Policy: Institutions versus Rules" *National Institute Economic Review*, 191, 70-85