

# **UK Policy Coordination: The Importance of Institutional Design**

## **Introduction**

In May 1997 the Chancellor announced that responsibility for decisions on interest rates would be given to a Monetary Policy Committee (MPC) of the Bank of England. Until then the Chancellor had been responsible for operational decisions on both monetary and fiscal policy. The purpose of this paper is to examine how this change has affected the coordination and conduct of fiscal and monetary policy. In particular the paper looks at whether, as has been claimed in the economic literature, there are coordination and accountability costs associated with having an independent body in charge of monetary policy. The main conclusion is that the particular design of the UK institutional framework improves coordination while providing the right incentives for effective conduct of monetary and fiscal policy.

This paper considers first the principles behind the design of the UK's macroeconomic framework. It then outlines the theoretical case for giving independence to the central bank. Next it explains how this was done in practice in the UK and assesses its success. There is then a brief description of the new fiscal regime and an assessment of how it is working. The theoretical issues surrounding fiscal-monetary coordination in a system with an independent central bank are then analysed finding that standard results in the literature do not hold when account is taken of the UK institutional arrangements. The way in which coordination takes place in the UK is discussed, with particular emphasis on the role of the Treasury representative on the MPC. Finally there is a brief discussion of arrangements for policy coordination in other countries and a comparison of the potential importance of fiscal policy as a stabilisation tool in the UK compared with the Euro-area.

## I. Principles for Effective Macroeconomic Policy Coordination

The principles behind the Government's approach to the design of the right macroeconomic framework are credibility, flexibility and democratic legitimacy<sup>1</sup>. Rules can provide credibility as long as there is a general belief that they are sensible and will be followed in general. Once this credibility has been established it is easier to accommodate economic shocks consistent with the policy objectives that have been set out. In the absence of such credibility, there is a risk that flexible behaviour will be misinterpreted as either abandoning the rules or adopting new rules. Credibility is also enhanced by having a transparent and accountable framework, which in turn provides democratic legitimacy.

The Chancellor has recognised the importance of transparency and accountability in several of his speeches. In his 1999 Mais lecture the Chancellor stated that "...a credible framework means working within clearly defined long-term policy objectives, maximum openness and transparency, and clear and accountable divisions of responsibility." In the words of Alan Blinder, the former deputy Chairman of the Federal Open Markets Committee, "*A central bank is credible if people believe it will do what it says.*" (Blinder 1999). Transparency in policy ensures that the Treasury and the MPC are better able to anticipate each other's policy decisions.

One feature of good policy design is the ability of the policymaker and institutions to have the flexibility to react sensibly to unanticipated economic shocks. Full discretion is unlikely to result in public trust of policymakers. However, rigid policy rules are also unlikely to help to build credibility if they fail to recognise the particular character of a given shock. Instead, constrained discretion in which there is room for manoeuvre within clearly defined limits allows policymakers to respond appropriately to unanticipated shocks and is most likely to build long-term policy credibility.

A credible policymaker that is subject to a high degree of transparency should have more room to respond sensibly to unanticipated economic shocks. This is because it should be easier to verify, for example, what has caused inflation to deviate from target, and to explain the appropriate policy response to bring it back on course. Without transparency, policy rules such as the inflation target and the fiscal rules in the UK would be less useful because the public and commentators could not judge policy actions against the stated objectives, arousing suspicion about the motives of policy. In practical terms, transparency involves policymakers publishing their analysis of economic prospects and previous economic developments so that the public and the legislature can assess their performance and make them accountable for their actions.

Accountability is an important complement to transparency because it means that sensible sanctions such as a loss of reputation exist as a

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<sup>1</sup> See Ed Balls recent lecture to the Oxford Business School (2001)

deterrent against time-inconsistent behaviour by policymakers. The body with the power to apply such sanctions should have democratic legitimacy and be representative of the legislature. In the UK, the Treasury Select Committee has a central role in holding to account the Treasury for overall economic policy, as well as the Treasury and the MPC in relation to their own particular responsibilities for macroeconomic policy.

Democratic legitimacy is important because policy should reflect a national consensus regarding the appropriate framework for macroeconomic policy and allow for debate about its future evolution. This will in turn maximise the credibility of policy and thus make it easier for policymakers to achieve their stated policy goals by being better able to influence public expectations. In the UK framework, legitimacy is strengthened because the Government sets the price-stability objective and only gives the Bank of England Monetary Policy Committee operational independence to hit the *Government's* inflation target and so the MPC is effectively the agent in this principal-agent relationship. This balance of power and responsibilities removes the scope for tension between fiscal and monetary policy that might occur if the central bank were free to set its own price stability objective.

The objective of UK macroeconomic policy is to deliver high and stable levels of growth and employment. The two main macroeconomic policy instruments are fiscal and monetary policy: fiscal policy has traditionally been set in a medium term framework while monetary policy has been used for short-term demand management. We now examine the literature on time-inconsistency in monetary policy which sparked off the debate about the merits of giving control of monetary policy to an independent central bank free of political pressure.

## **II. Why an independent Central bank?**

The general result in the public policy literature is that a policymaker with full discretion will be time-inconsistent when outcomes are subject to private sector expectations (see Kydland and Prescott, 1977). Before presenting the standard model of time-inconsistent monetary policy a clear definition of time inconsistency is appropriate. A policy that the policymaker finds optimal today will influence the actions of the general public. Once the public has acted the policymaker may no longer find the original policy to be optimal and therefore renege on its original policy. A rational public will anticipate the change in policy, undermining the policymaker's ability to commit credibly to its original decision.

The time-inconsistency result can be shown in the case of monetary policy by means of a small model like the one below (see Barro and Gordon 1983a,b or Mankiw 1988 for an overview).

## Inflation bias under discretionary policy

In the following discussion the central bank is assumed to be under the control of the government and simply implements the monetary policy decisions passed down to it. The central argument in the literature is that under discretion monetary policy will be subject to an inflation bias. In the model below, equation 1 implies that output will be greater than the natural rate,  $y^N$  only if there is an inflation “surprise”,  $\tilde{\pi} > E(\tilde{\pi})$ . For a *discretionary* policy, the authorities minimise their quadratic loss function defined by (2)<sup>2</sup> subject to the “surprise” supply function given by equation (1) – this is a constrained minimisation problem. The authorities choose  $\tilde{\pi}$  taking the private sector’s inflation expectations,  $E(\tilde{\pi})$  as given. This can be thought of as a sequential process in which the authorities assume the private sector forms its expectations of inflation prior to the authorities’ choice of  $\tilde{\pi}$ .  $\tilde{\pi}$  is a random supply disturbance with mean zero and constant variance and  $y^*$  is the target rate of output which is greater than the natural rate.

$$y - y^N = \tilde{\pi} - E(\tilde{\pi}) + \tilde{\epsilon} \quad (1)$$

$$L = (\tilde{\pi} - \tilde{\pi}^*)^2 + \hat{\alpha}(y - y^*)^2 \quad (2)$$

where

$y$	is actual output
$y^N$	is the natural rate of output
$y^*$	is the target rate of output
$\tilde{\pi}$	is actual inflation rate
$\tilde{\pi}^*$	is the target rate of inflation

The constrained minimisation is done by substituting from (1) for  $y$  in equation (2) and then differentiating with respect to  $\tilde{\pi}$  giving the following first order condition:

$$\tilde{\pi}(1 + \hat{\alpha}) - \tilde{\pi}^* - \hat{\alpha}E(\tilde{\pi}) + \hat{\alpha}\hat{\alpha}(y^N - y^*) = 0 \quad (3)$$

Thus if agents have rational expectations so that  $E(\tilde{\pi}) = \tilde{\pi}$  then substituting this in to expression (3) gives the following realised inflation rate in any given period (equation 4):

$$\tilde{\pi} = \tilde{\pi}^* - \hat{\alpha}\hat{\alpha} + \hat{\alpha}(y^* - y^N) \quad (4)$$

where

$$E(\tilde{\pi}) = \tilde{\pi}^* + \hat{\alpha}(y^* - y^N) \quad (5)$$

An inflation bias is generated if the central bank targets output higher than the natural rate ( $y^* > y^N$ ). Then the third term on the right side of expression (4) is strictly positive and is the **inflation bias (indicated in bold)**.

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<sup>2</sup> The loss function is quadratic in output and inflation. This means that the marginal loss when inflation and output are away from target is symmetric around this target but increasing in the level of the deviation.

Expression (5) shows that on average inflation is equal to the target rate for inflation plus any inflation bias when  $y > y^N$ .

Intuitively, under discretion, the private sector knows that the central bank has an incentive to stimulate output once wages have been set and so there is a mark-up on the target inflation rate which is just enough to offset the payoff from boosting output temporarily above the natural rate.

### The first-best policy

In this model, the first-best outcome is for the central bank to follow a rule  $\check{\pi} = \check{\pi}^*$  and the output target is equal to the natural rate ( $y=y^N$ ). With rational expectations this rule then implies that inflation is on target on average;

$$\check{\pi} = E(\check{\pi}) = \check{\pi}^*$$

In any given period the realised inflation rate will be the target plus the unanticipated supply shock,  $-\hat{a}$

$$\check{\pi} = \check{\pi}^* - \hat{a}$$

### How does the literature deal with the inflation bias?

The inflation bias is generated by the assumption that the policymaker will target a level of output or employment above what the market would deliver without policy intervention. In the literature, this assumption is usually justified on welfare and efficiency grounds; that imperfections in the goods and labour markets would result in an inefficiently low natural rate if left to the market alone. Accepting this argument, then in order to eliminate the inflation bias it is not enough to make the central bank independent. It must also be more inflation averse (Rogoff, 1985) or face a higher marginal cost of inflation than the Government (Walsh, 1995).

In the Rogoff model the inflation bias is offset by appointing a central banker who is more inflation averse than society, but at the cost of sub-optimal output stabilisation. Consequently there is a trade-off between credibility and flexibility – the more conservative the central bank the more its anti-inflation policy is believed. This is a somewhat counter-intuitive result because in the real world a sensible central bank would need to take account of the impact of its policy actions on output volatility. Failure to do so would see it lose public support. In the Walsh model a linear penalty increases the marginal cost of inflation which exactly offsets the inflation bias – one way of making this penalty operational might be to link the compensation of the central bank Governor to inflation outcomes.

A body of literature developed after the earlier theoretical work to investigate whether countries with an independent central bank did in fact have lower inflation on average as the theory implied. Cuckierman (1992) finds that inflation was lower on average in countries with independent

central banks without any evidence that output was lower. Other studies such as Doyle and Weale (1993) show that this empirical result only holds in the 1970s when inflation was generally high (partly due to the oil shocks) but is much less clear-cut in the fixed exchange rate era or after 1979 when governments began to implement disinflationary policies. Posen (1993) argues that the degree of central bank independence and the average level of inflation are both a function of a society's inflation aversion. Results from regressions of inflation on an index of central bank independence may not capture this causal link if indices of independence did not capture this inflation aversion. These indices are typically constructed using information from legislation that defines the legal status of the central bank which may not reflect the true degree of inflation aversion in society.

Two important questions have been raised concerning the interpretation of the inflation bias result in the model outlined above. First, Alan Blinder has argued that there is clear evidence from the behaviour of central banks in recent years, beginning with the disinflation of the early 1980s and the maintenance of low inflation today, that central banks do not have a systematic inflationary bias – in other words they do not target anything other than the natural rate of output. The second puzzle, raised by McCallum (1995), is why making the central bank independent does not merely relocate the time inconsistency problem to the Government, which is always able to revoke independence if it so desires. Why can the Government credibly pre-commit to independence but not to an inflation rate?

#### The fallacy of targeting output higher than the natural rate

McCallum (op cit.) and Bean (1998) agree with Blinder and argue that there is no obvious pay-off for an independent central bank in aiming for output higher than the natural rate (even if the latter is inefficiently low because of, say, market distortions). Governments need to stand for re-election whereas central banks will be judged on achieving their inflation objective. Bean (1998) suggests that a more probable source of the time-inconsistency problem is government attempts to boost output through a range of policies - monetary, fiscal and structural - that deliver a payoff to the Government in terms of re-election by persuading the public that these policies have been successful in raising potential output. The Government's loss function can then be represented by the following relationship so that its expected losses decline with the level of output  $y$ .

$$L = \delta^2 + \hat{\alpha}y^2 - \alpha y$$

Bean argues that once monetary policy is delegated to an independent central bank the last term drops out because it will not enjoy a payoff from boosting output beyond the natural rate as such a policy would undermine its credibility as an inflation fighter. Therefore, it is the act of delegating monetary policy to an independent central bank that overcomes the time-inconsistency problem, not any particular characterisation of the central bank's preferences over output and inflation.

## Does independence resolve or relocate time-inconsistency problem?

McCallum (op cit.) questions this literature on a second issue: why is the Government able to make a credible pre-commitment not to revoke independence but is not able to pre-commit to low inflation (ex-ante) if it were setting monetary policy. The answer lies in the fact that the cost of renegeing on independence is much higher than occasionally attempting to “fool” wage setters about the commitment to low inflation. In a world of uncertainty in which agents do not have complete information about the central bank’s inflation preference and the model of the economy it is easier to observe whether the Government has renegeed on independence rather than trying to verify whether it has renegeed on its inflation objective<sup>3</sup>. If the expected cost of renegeing on a commitment increases with the probability of being caught cheating then renegeing on independence is a much more serious issue than renegeing on an inflation rate.

In the UK, the Bank of England Act 1998 sets out the legal basis for the independence of the Bank of England Monetary Policy Committee. This makes explicit that the Government can take operational control of monetary policy only in “extreme economic circumstances” under the reserve powers of the Treasury (section 19, Bank of England Act 1998). Clearly the set of conditions under which the Government could then take operational control of monetary policy are very limited, and would require very compelling arguments for doing so to avoid a loss of reputation for economic management.

### **III. Putting the principles into practice: The MPC**

In May 1997 the Monetary Policy Committee was established and given the responsibility of setting interest rates to hit a symmetric inflation target set by the Government<sup>4</sup>. It has nine members, four external and five internal to the Bank under the Chairmanship of the Governor of the Bank of England and, in addition, a non-voting representative of the Treasury. The external members are appointed by the Chancellor on the basis of their expertise and their likely contribution to the effective functioning of the Committee. Appointments are for three years and are renewable.<sup>5</sup>

The Committee is held to account by the Treasury Select Committee which can call individual MPC members to give oral and written evidence as part of its assessment of their performance. In addition the non-executive members of the Court of the Bank of England are charged with reviewing

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<sup>3</sup>If the framework is not transparent the latter might be explained away by the effect of unanticipated shocks especially if there is uncertainty over the policy multipliers and their impact on inflation.

<sup>4</sup> see “The New Monetary Policy Framework”, October 1999, HM Treasury.

<sup>5</sup> The MPC is unusual among Central Bank committees in not having a nationality requirement. Its membership has included a Dutch Professor, Willem Buiter, and an American economist, DeAnne Julius, who came from the private sector.

the procedures followed by the MPC. In particular they look at the whether the Committee has collected the regional, sectoral and other information necessary for formulating monetary policy<sup>6</sup>. In carrying out this function some of the non-executive members of Court consult the Treasury Representative to obtain his views.

Policy transparency, or the revelation of information, is a key complement to accountability because it provides the information on which the central bank can be held accountable. Transparency can take many forms from the publication of central bank analysis, speeches by MPC members as well as evidence to Committees convened by the legislature. This helps to build a broad constituency of public support for the central bank's actions and enhance its credibility and legitimacy.

Information and analysis is published by the Bank of England and, more recently, the MPC unit. The MPC unit is led by the four external members on the MPC and has its own resources to conduct research and analysis of issues important for monetary policy. A quarterly Inflation Report explains the MPC's assessment of future inflationary pressures; the Minutes of MPC meetings are published two weeks after each meeting and record the meetings discussion as well as the votes of members. In addition the Treasury Select Committee publishes regular reports on its assessment of the MPC<sup>7</sup>. Together these publications play a valuable role in the presentation of policy decisions and efforts to build credibility.

### The Open letter system

A further layer of transparency is provided by the Open Letter System. This is designed to enhance transparency and accountability when there is a large inflationary shock that moves inflation significantly from target. Whenever RPIX inflation deviates by more than one percentage point either side of the target, the Governor as Chairman of the MPC, is required to send an Open Letter to the Chancellor that sets out the following:

- Why inflation has deviated from target;
- What actions the MPC is intending to take to bring it back to target and how this is consistent with the economic policy objectives of the Government;
- How quickly inflation is expected to return to target;
- How this meets the Bank's remit.

The target is symmetric; overshoots and undershoots are treated in the same way through this procedure<sup>8</sup>. An Open Letter is not a sanction on the MPC, neither is it a criticism of its policy stance, but a device to ensure maximum transparency and accountability of policymakers at time when a large inflation shock has hit the economy. The purpose is to facilitate an open debate about the appropriate response to a large inflationary shock.

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<sup>6</sup> See the Bank of England Act, 1998, part II, section 16

<sup>7</sup> See also Budd (2000) who calls for the Treasury Select Committee to cross examine MPC members more rigorously on the reasons for their votes.

<sup>8</sup> See "The New Monetary Policy Framework", October 1999, HM Treasury

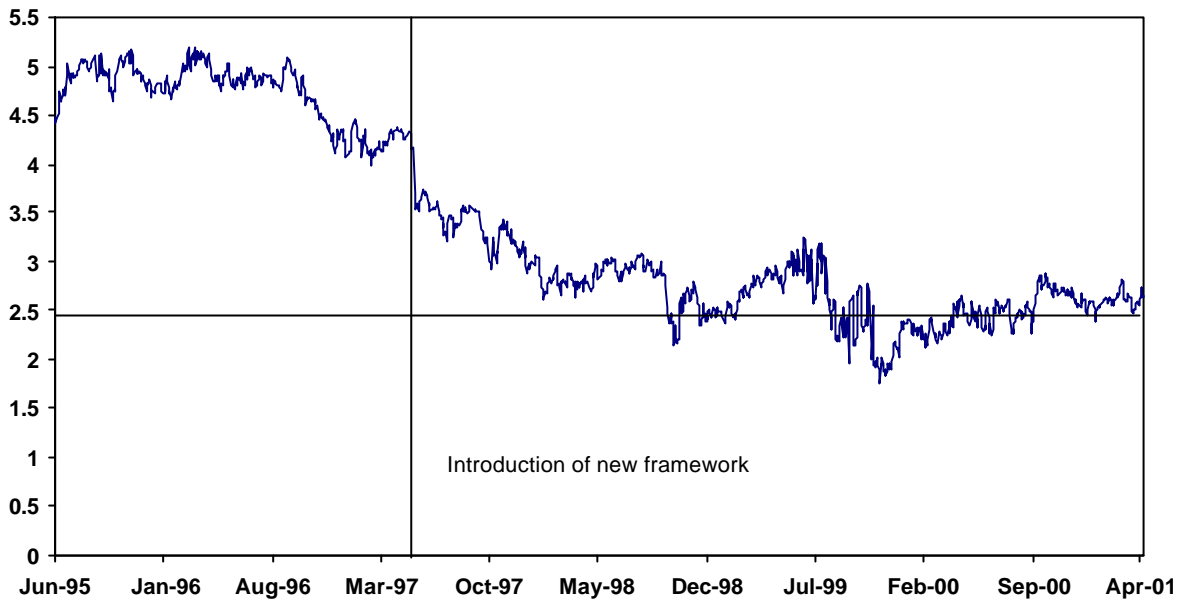
It recognises the inherent uncertainty under which monetary policy operates, including the imperfect knowledge about the complex monetary transmission mechanism. These militate against using monetary policy for ultra fine-tuning of the economy. It ensures that the public are made fully aware of the merits of flexibility so that they do not become suspicious of the MPC's commitment to the inflation target at a time when the system is under stress.

In his report on the operation of monetary policy in New Zealand, Svensson (2001) points to there being considerable agreement in policymaking circles and academia that best-practice monetary policy should be focused on stabilising inflation around a low inflation target, whilst a gradual and measured response to inflation shocks avoids creating unnecessary variability in the real economy. In the UK the Open Letter system is an in-built mechanism that provides this flexibility whilst also requiring maximum transparency and accountability when inflation is significantly away from target.

### Inflation expectations

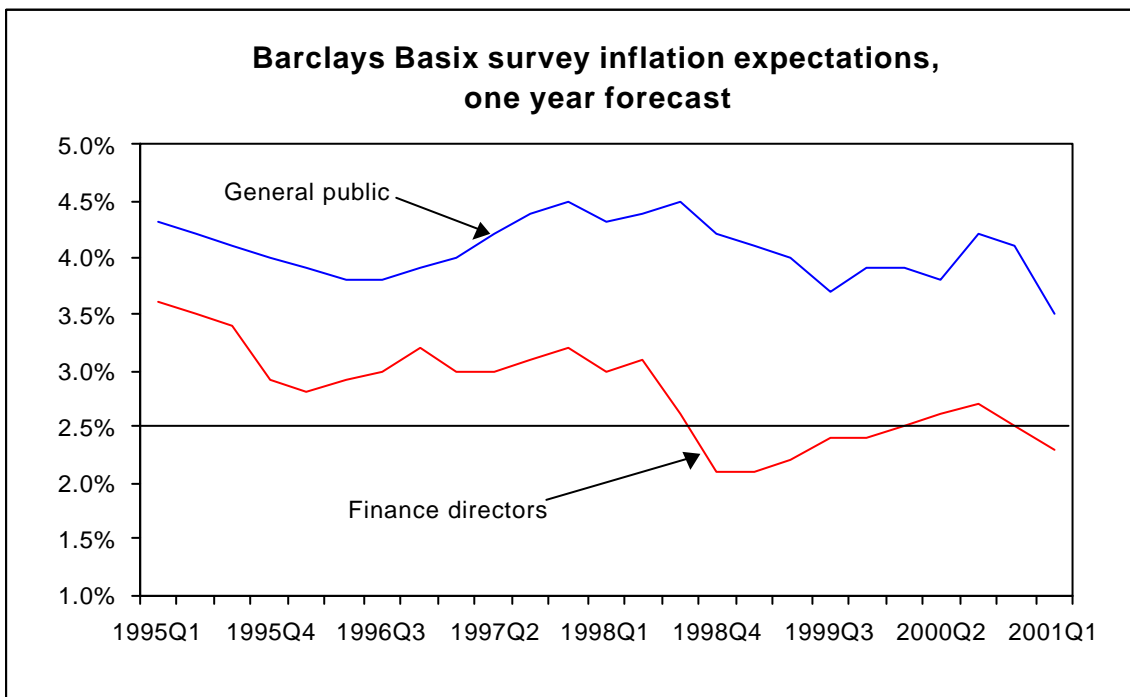
The main reason for putting the MPC in charge of interest rate decisions is to improve the performance and credibility of monetary policy. One excellent test of whether this has been achieved is to look at inflation expectations. Chart 1 shows the expected inflation level derived from the yields on index-linked and conventional bonds. It is interesting that the move to inflation targeting gradually lowered expectations to around 4% against a target of 2.5% or less. The introduction of the MPC with a symmetrical target of 2.5% has brought inflation expectations down very close to 2.5%. This is very strong evidence of the credibility of the new arrangements.

**Chart 1 Inflation expectations 10 years ahead from index-linked gilts**



The Barclays Basix survey (chart 2) reveals that while finance directors and several other categories of respondents also expect inflation to be around 2 ½ per cent, the public's expectations of inflation have continued to be significantly above the inflation target. More recently, there is some evidence that these are beginning to come down. There are a number of possible explanations for this discrepancy.

**Chart 2 Barclays Basix survey of inflation expectations one-year forecast**



First, it may take the general public some time to incorporate the impact of the new monetary framework into their inflation expectations. There is some anecdotal evidence that inflation expectations of respondents in the Barclays survey adapt only slowly to a changing economic outlook. For example, the survey consistently under-predicted inflation when it was rising during the late 1980s.

Second, the Government's inflation target is specified in terms of inflation on the RPIX measure while respondents in the Barclays survey are simply asked what they expect inflation to be in a year's time. Since 'inflation' is not precisely defined, respondents may have in mind a subjective measure of inflation, which is not closely related to the RPIX measure. For example, respondents perceived measure of inflation may include asset price inflation, which has exceeded RPIX inflation in recent years.

Third, it is not clear that the survey evidence is consistent with other measures of inflation expectations, including evidence from wage behaviour.

Finally, the Bank has recently published the initial results of its on-going survey of attitudes to inflation. This survey suggests that public expectations of inflation are consistent with the Government's inflation target<sup>9</sup>.

Lars Svensson's recent independent review of monetary policy in New Zealand upholds the UK monetary framework as an example of best-practice. The report states: *"best-practice central banks which have adopted flexible inflation targeting include the Bank of England and Sveriges Riksbank (the central bank of Sweden). I believe these banks provide a relevant standard of comparison for the operation of monetary policy in New Zealand."*<sup>10</sup>

#### **IV The UK's new fiscal policy framework**

At the same time as the MPC was established, complementary reforms were made to fiscal policy that further strengthened the macroeconomic policy framework<sup>11</sup>. A new fiscal framework was created, based on five principles of fiscal management – transparency, stability, responsibility, fairness and efficiency. Decisions on tax and spending are now taken in accordance with these principles in order to achieve the Government's fiscal policy objectives:

- over the medium term to ensure sound public finances and that spending and taxation impact fairly both within and across generations;

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<sup>9</sup> Bank of England/NOP survey, Quarterly bulletin, Summer 2001

<sup>10</sup> "Independent review of the operation of monetary policy in New Zealand: Report to the Minister of Finance," February 2001, page 1.

<sup>11</sup> see "Analysing UK Fiscal Policy," November 1999, HM Treasury.

- over the short term to support monetary policy over the cycle by:
  - allowing the automatic stabilisers to play their role in dampening variations in economic activity; and
  - where prudent and sensible, providing further support to monetary policy through changes in the fiscal stance.

These objectives recognise that while the primary purpose of fiscal policy is to ensure sustainable public finances, it can also be used to support monetary policy over the cycle. The objectives are given effect through two medium-term fiscal rules:

the golden rule states that, over the economic cycle, the Government will borrow only to invest and not to fund current spending; and

the sustainable investment rule states that public sector net debt, as a proportion of GDP, will be held over the economic cycle at a stable and prudent level (other things equal, taken to be 40%).

These fiscal rules were designed in response to lessons learned from past experience. In particular, the Government realised that a key factor behind the macroeconomic instability of the early 1990s was the lack of clear principles for fiscal policy and a lack of well-defined objectives and targets. Temporary, cyclical improvements in the fiscal position were misinterpreted as permanent, structural improvements. Moreover, fiscal policy had not been supporting monetary policy to help dampen inflationary pressures in the late 1980s and, after the economy returned to trend around 1991, the fiscal position rapidly deteriorated. During the ensuing downturn significant tax increases and spending restraint were required to return the public finances to a sustainable path. These decisions undermined the effective operation of the automatic stabilisers. A lack of transparency and clear reporting compounded the difficulties, further weakening credibility.

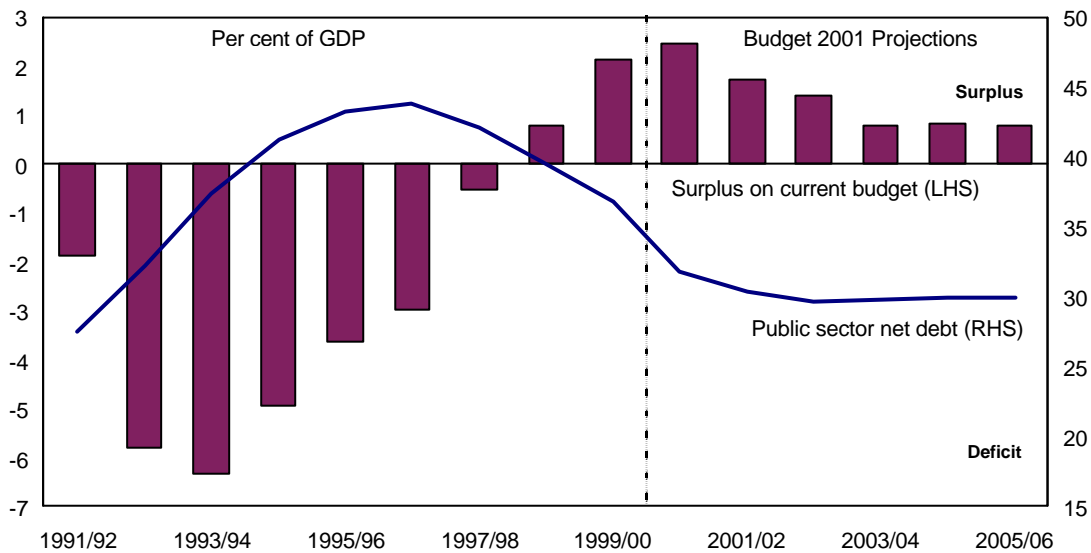
In contrast, the fiscal rules at the heart of the new framework provide clear and transparent benchmarks against which the performance of fiscal policy can be judged. They constrain fiscal decisions while allowing flexibility in two key respects:

- both rules are set over the economic cycle allowing fiscal policy to support monetary policy in smoothing the economic cycle by allowing the automatic stabilisers to operate freely. This allows a current deficit in years of slower economic growth so long as this is balanced by a surplus during a year of stronger economic activity;
- the rules distinguish clearly between current and capital spending. The rationale is to promote a matching of costs and benefits between generations. That is, current spending, which primarily provides benefits to the current generation, should be

funded by the current generation through taxation. Capital spending provides benefits to both current and future generations and it is appropriate that the cost be spread over time and generations in the form of interest and debt repayments.

Chart 3 below sets out the performance against the fiscal rules. The key indicator of progress against the golden rule is the average current budget over the economic cycle. The chart shows that the Government is on track to meet the golden rule over the forecast period, with a surplus on current budget in each year of the forecast. The chart also shows that the Government is comfortably on track to meet the sustainable investment rule with net debt stabilising at around 30 per cent of GDP over the forecast period.

**Chart 3: Meeting the Fiscal Rules.**



## V. Central bank independence and policy coordination

In their paper Alesina and Tabellini (1987) conclude that the benefits of central bank independence depend on the degree of coordination between the fiscal and monetary authority. The literature approaches the subject by setting a policy game between the fiscal authority (FA) and monetary authority (MA) and concludes that the cost of independence is less policy coordination. What is surprising is the lack of attention paid to institutional design and how this can overcome the potential difficulty of coordinating the actions of the MA and FA. In this section we show that the generic policy game played out in the literature between the fiscal authority FA and MA misrepresents the actual practice of macroeconomic policymaking in the UK. In particular, the design of the UK's macroeconomic framework means that policy coordination has improved since independence.

## Modelling Policy Coordination

Policy coordination is modelled using game theory which requires some motivation for strategic behaviour between the players, in this case a FA and MA. This is achieved by giving each a different set of preferences over macroeconomic variables such as inflation and the fiscal deficit. In a repeated game involving two players, cooperation (or coordination) is always Pareto superior to non-coordination. Credibility is the key: each player should be able to make a credible pre-commitment to cooperate ex ante.

In the typical policy game neither the MA nor the FA is able to make a credible pre-commitment to cooperate but behaves strategically to maximise its own welfare. Using the Nordhaus (1994) model of a policy game, in the next section we critically examine the assumptions of the model and show how, once they are modified to reflect the UK institutional design, policy coordination is achieved. It is argued that in the UK because the Treasury and Bank of England MPC have a principal-agent relationship – in which the Government sets both the fiscal rules and the inflation target – it is the Government's preferences which determine both the MPC's and Treasury's objectives, removing any tension found in the policy games.

### An overview of the Nordhaus (1994) model

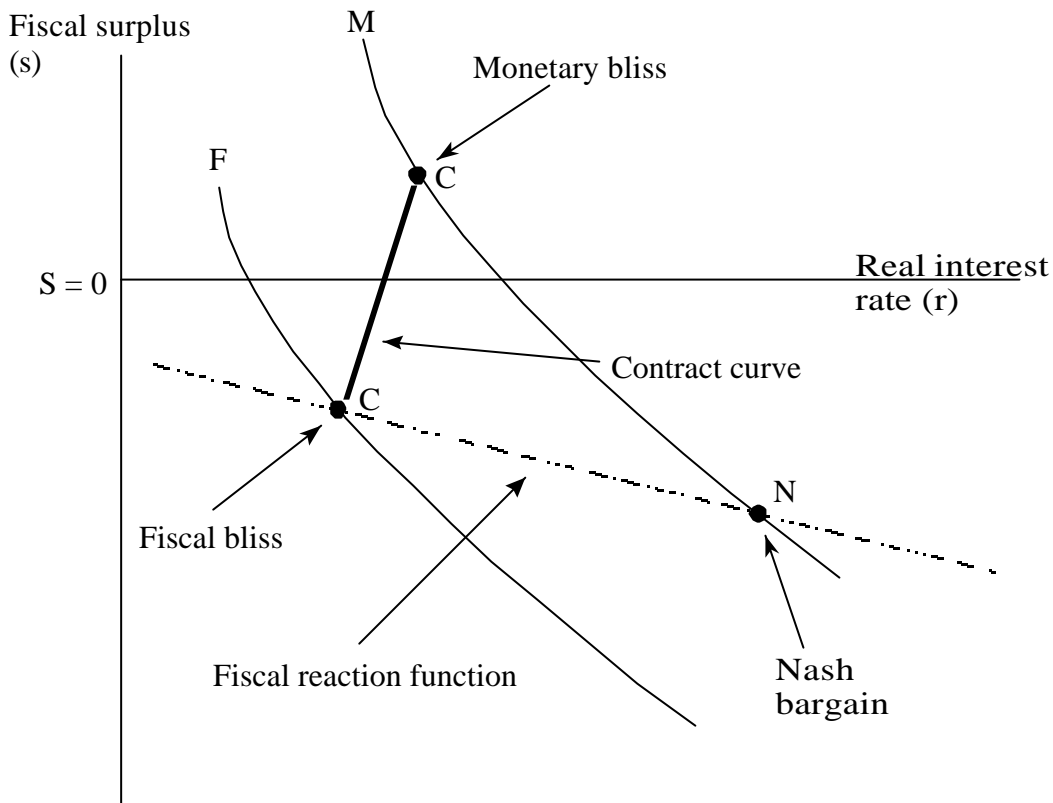
The model is a deterministic one-shot game in which the FA and MA authorities do not try to stabilise the economy in the face of random shocks, but instead bargain over steady state inflation, output and the fiscal surplus. The MA and FA are assumed to have different preferences over macroeconomic outcomes – inflation, growth potential of the economy and unemployment.

Figure 1 captures the essential elements of the Nordhaus model. The axes are policy instruments; the fiscal surplus ( $s$ ) and the real interest rate ( $r$ ). Each authority desires levels of unemployment and inflation that are lower than are simultaneously feasible given the structure of the economy, and so minimises its losses subject to this constraint and the solution to this is given by their bliss points (see diagram). Note that the FA is assumed to have a desire for higher deficits (lower surplus) reflecting political economy incentives such as re-election whilst the MA has no intrinsic interest in the government surplus other than its effect on its own ability to deliver its preferred inflation rate.

The F and M lines trace out combinations of the policy instruments for the FA and MA that give them the same level of aggregate demand as their respective bliss points – their optimal level of aggregate demand. Moving in the north-east direction aggregate demand is lower (both the fiscal surplus and real interest rates are higher). The MA authority has a lower optimal level of aggregate demand than the FA because it desires a lower rate of inflation, whereas the FA is more worried about unemployment.

The reaction function of the MA coincides with line M as it only cares about output and inflation and not the fiscal surplus. The FA prefers a lower surplus (higher deficit) because it is assumed to believe that higher spending/lower taxation will bring political benefits. As a consequence it is willing to forgo some aggregate demand for a lower fiscal surplus (higher deficit).

**Figure 1**



In this game information is assumed to be *complete and symmetric*. With no mechanism for a credible pre-commitment to cooperate, bargaining between the FA and MA inevitably leads to a Nash (or non-cooperative) solution given by point N where interest rates are higher and the fiscal surplus is lower than desired by each authority. This is because for a combination of  $r, S$  below that at N, the FA's optimal reaction is to set a lower fiscal surplus than desired by the MA. Note, however, that both the FA and MA are responding to the state of the economy and not to each others policy response which is taken as given.

Both could do better by cooperating (policy coordination) along the contract curve CC (figure 1). Exactly where on the CC curve a bargain is struck will depend on the relative bargaining power of the MA and FA. Below we argue that because in the UK the Government sets both the monetary and fiscal objectives there is no difference in preferences and the monetary

bliss point “collapses” onto the fiscal bliss point – policy is set jointly. In the Nordhaus model this is equivalent to the MA and FA being able to make a credible pre-commitment to cooperate (coordinate) but with the FA having full bargaining power.

## **VI. Policy coordination in the UK’s new framework**

### Preferences are determined by the Government

Fischer (1990) distinguishes between two types of independence: goal and instrument. Goal independence allows the MA to set its own objectives whereas instrument independence is more limited allowing the MA to set its policy instrument to meet the objectives delegated to it by the Government.

In the UK the Government sets both the monetary policy goal defined as an inflation target and the fiscal objectives underpinned by the fiscal rules. The Treasury behaves as the principal and the Bank of England Monetary Policy Committee as the agent in this relationship. It makes no logical sense for the Government to set an inflation target that is inconsistent with its fiscal objectives because the MPC will stand ready to counteract any fiscal impulse that puts at risk the inflation target.

In the UK’s case, it would also be wrong to give the FA and MA different preferences because the MPC has operational independence but not goal independence. If the MA is able to set its own goal then arguably there may be scope for preferences across the MA and FA to differ, although it can also be argued that if the MA sets a goal that does not have wider public support then it is unlikely to be sustainable. If the Government sets the operational goals for both fiscal and monetary policy then preferences should be mutually consistent and there is no tension and no policy game. In the Nordhaus diagram this would be equivalent to the monetary authority’s (the MPC) bliss point collapsing onto the FA’s bliss point (the Treasury) emphasising that as the agent, the MPC’s preferences are determined by the Treasury. In fact, illustrating fiscal and monetary coordination in the UK using a policy game is the wrong approach because there is no tension (or game) in the first place between the Treasury and MPC’s objectives.

### The Government’s pre-commitment to policy coordination

We know from the analysis of strategic behaviour that by being able to credibly commit in advance of playing a game both players have much to gain (Fudenberg and Tirole, 1991). In the Nordhaus model no pre-commitment mechanism exists and so only a Nash equilibrium can be supported<sup>12</sup>. Hall et al (2000) highlight that this would seem to be logically

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<sup>12</sup> This implies the cost of renegeing on their plans for the FA and MA must be trivial or zero and that this is common knowledge.

inconsistent because even before the policy game is played out the FA is able to credibly pre-commit to central bank independence. Why then is the FA not able to go one step further and commit to cooperating with the MA and achieve a Pareto superior outcome?<sup>13</sup> A serious drawback of the Nordhaus model is that it is a one-shot game and so cannot incorporate reputational equilibria possible in dynamic games. In repeated games with reputation, the cost of renegeing on a pre-commitment accumulates over time, and with forward-looking behaviour, this can support a credible commitment in the first period and each subsequent period.

In the UK where the Treasury sets both the fiscal and the monetary policy objectives it clearly makes no sense for the MPC to renege on its operational task of hitting the symmetric inflation target. Fiscal policy is constrained by the fact that the MPC is required to ensure that monetary policy counteracts any inflationary consequences of fiscal policy that would otherwise cause inflation to deviate from target, thereby limiting any potential gain to the Government from a profligate fiscal expansion. Neither could the Government revoke the independence of the Bank of England and take control of interest rates without a significant reputational cost that damages policy credibility<sup>14</sup>.

#### Other features of the UK framework

As well as having conceptual weaknesses, the Nordhaus model fails to capture several important features of the UK macroeconomic policy framework. In particular:

- the macroeconomic framework ensures a high degree of transparency in fiscal and monetary policy;
- enhanced transparency built into the Bank of England Act 1998 and the Code for Fiscal Stability requires the MPC and the Treasury to put greater emphasis on communicating its policy stance not only to expert commentators but the general public. Greater clarity in macroeconomic policy enhances public debate and scrutiny of the mix of monetary and fiscal policy and has helped establish credibility;
- the presence of a Treasury representative at MPC meetings, who speaks but does not vote, ensures that there is an exchange of information between the Treasury and the Bank of England which helps to coordinate policy;
- fiscal policy is constrained by the inflation target because the Treasury must take into account the likely response of the MPC to different fiscal policy settings. Thus when setting the fiscal stance,

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<sup>13</sup> If the cost of renegeing on plans is low or zero, then the ex-post return on renegeing is higher than the return from sticking to the pre-commitment plan.

<sup>14</sup> Although under the Bank of England Act 1998 the Treasury can take control of monetary policy, it is clear that circumstances to justify this would be exceptional.

the Treasury takes the lead in setting the policy mix. In the past when the Chancellor was in control of monetary policy, it was by no means clear to the public or commentators whether the same thought experiment and debate was taking place in the Treasury. Even if it was, the fact that such a debate is now more transparent has enhanced the credibility of macroeconomic policy;

- the Government sets the MPC's operational target and the fiscal rules ensuring that they are mutually consistent with its desired policy mix. Unlike the ECB or Bank of Japan, the MPC does not define its own price stability objective.

The MPC's remit is set out annually by the Chancellor and has kept the UK inflation target at 2.5% for RPIX inflation and suggested that goal stability is important for building credibility. While the remit sets the target it does not specify how aggressive the MPC should be to bring inflation back to target once it deviates from it. Whatever policy action the MPC decides will have implications for the volatility of output – a more aggressive policy that aims to bring inflation quickly back to target is likely to result in higher output volatility, other things equal.

The remit is deliberately incomplete for very sensible reasons: (a) it is impossible to write a complete state-contingent contract for the MPC; (b) it is not possible to monitor the MPC's actions perfectly, partly because of uncertainties over the true model of the economy and the difficulty of identifying shocks.

How, then, does the MPC ensure that its actions are not out of line with the Government's preference over output volatility and inflation volatility?<sup>15</sup> Using a small macro model calibrated to UK data, Bean (1998) plots an efficient policy frontier for the UK (a Taylor curve) and finds it to be close to rectangular. Therefore, a wide range of relative weights on output volatility vis-à-vis inflation volatility generates a very similar point on the policy frontier<sup>16</sup>. So long as the preferences of the Government are not extreme (neither putting too much relative weight on output volatility or inflation volatility) the MPC should be able to choose a policy that puts it close to the Government's output volatility-inflation volatility choice on the efficient policy frontier.

### The Role of the Treasury Representative on the MPC

In a system where fiscal and monetary objectives are set by the Chancellor, it is important that the MPC is kept well informed about the

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<sup>15</sup> The remit states that the inflation target is 2.5% RPIX inflation at all times. It is clear from reading the minutes of meetings and the inflation report that the MPC do not translate this to mean that it should attempt to bring inflation back to target in a very short period as this would result in undesirably high output volatility (and possibly instrument volatility).

<sup>16</sup> Bean notes that Batini and Haldane (1998) also find the same general shape for the policy frontier suggesting that the result may not be model dependent.

Chancellor's thinking on how fiscal policy will be operated. The two fiscal rules provide a good medium term guide but the MPC's focus on the evolution of the economy over the next two years gives them a particular interest in how fiscal measures will influence the economy over this period.

At the monthly MPC meetings, it is the job of the Treasury Representative, who has a voice but no vote, to ensure the MPC are aware of any information about Government policy and fiscal developments that might be relevant for hitting the inflation target. In practice this is mostly done at official level between the Bank and the Treasury to ensure the pre-MPC briefings are accurate and up-to-date. Before each Budget and each Pre-Budget Report a Treasury team led by the Treasury Representative briefs the MPC on the latest economic forecast and the fiscal projections.<sup>17</sup> The purpose of this exercise is to allow the MPC to come to a better judgement about the net contribution to demand that will result from the Government's fiscal decisions.

In general the MPC has decided to use the Government's projections for nominal spending in its own Inflation Report forecasts. They will also have generated revenue forecasts based on effective tax rates derived from the government's revenue projections. The Treasury, in consultation with the Inland Revenue and Customs and Excise, will have updated their own forecasts to take account of what has happened to tax revenues and will have made judgements about whether any changes are structural or cyclical. For departmental programme spending, which is covered by Departmental Expenditure Limits (DEL), by convention the Treasury assumes at PBR time that departments spend their full allocations and this assumption is also used for the future. At each Budget a judgement is made about the likely spending outturn for that particular year which may show a deviation from the allocation due to over or under spends.

Forecasts of Annually Managed Expenditure (AME) are made at the PBR and at Budget time. For AME, it is assumed in the PBR that the full projected amount will be spent, with any underspend that has emerged in the first part of the fiscal year being "parked" in the AME margin. In the Budget a new AME forecast is made and the AME margins are reset.

This is a fairly complex process and in a year where there is a spending review additional judgements have to be made. The Treasury Representative's job, with the support of other Treasury Officials, is to explain all this to the MPC. The MPC takes account of the latest fiscal measures when making its decisions and the discussion on these issues is recorded in the Minutes. In this way the independent monetary authority contributes to better fiscal policy as well as improving monetary policy.

The Treasury Representative also explains how the Government intends to respond to shocks e.g. the outbreak of Foot and Mouth disease, which

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<sup>17</sup> The Treasury Representative on the MPC is usually Gus O'Donnell. Around twice a year the Treasury's Permanent Secretary, Sir Andrew Turnbull fulfils the role.

have implications for the fiscal position. There is usually no need to comment on changes resulting from revised growth forecasts as the fiscal rules are set in cyclically adjusted terms. For example, weaker growth would not, per se, lead to a requirement for fiscal tightening. Weaker revenue outturns that could not be explained by weaker activity, on the other hand, could be a cause of concern.

It is also important to realise that the MPC makes its forecasts on the basis of the most up to date fiscal projections. For example it will have incorporated the Budget 2001 projections as it sees fit in its latest Inflation Report. These projections are then updated to reflect subsequent outturn data for the public finances. Hence when it comes to the next PBR the 'news' for the MPC will be the difference between the Treasury's latest projections and those made by the MPC in its latest Inflation Report.

This is why the Treasury puts a lot of weight on comparing the projected fiscal balances with those contained in its most recent publications; Budget projections are compared with those from the last PBR and the last Budget. These give an estimate of the 'news' to the MPC in the fiscal announcements, subject of course to the amount of the 'automatic' updates undertaken by the MPC.

Examples of other relevant Government policies would be developments in public sector pay or the National Minimum Wage. For these reasons it is important that the Treasury has a Representative, not just an Observer, on the MPC. The clear principle is 'a voice but no vote'. Should the Government decide to change the inflation target the Treasury Representative would be able to explain to the MPC the basis for the decision.

The Representative also reports back to the Chancellor on how well the Committee is functioning, keeping him informed about the key issues and problems facing the UK economy as seen by the MPC. The Bank itself has taken an excellent approach to evaluation by asking Don Kohn, the Director of Monetary Affairs at the Board of Governors, US Federal Reserve System to report on how well the MPC was working. His thorough report to the non-executive directors of the Bank was published in October 2000 and has been discussed by the Treasury Select Committee.

## **VII. Has policy coordination improved in the UK?**

One way to look at this question is to present some stylised facts about macroeconomic policy coordination. Evidence from previous economic cycles suggests that policy coordination in the UK has not always been optimal. An example is the late 1980s, when monetary and fiscal policies were both loosened as the economy was overheating. The table below sets out the direction of the decisions during this period and shows the changing output gap.<sup>18</sup>

**Changes in Interest rates, structural deficits and output gap,  
1985-86 to 1989-90**

Change in:	1985/86-87/88	1987/88-89/90	
Output gap <sup>2</sup>	4	1¼	
Interest rates	-2¾	5¼	
Structural deficit <sup>3</sup>	1½	¼	
	<b>1985-86</b>	<b>1987-88</b>	<b>1989-90<sup>1</sup></b>
Memo item:			
Output gap level <sup>2</sup>	-1½	2½	3¾

<sup>1</sup> one year after peak of output gap

<sup>2</sup> as percentage of potential GDP

<sup>3</sup> cyclically-adjusted Public Sector Net Borrowing as percentage of GDP

Between 1985-86 and 1987-88, the Treasury now estimates that the output gap increased by 4 percentage points and inflationary pressures in the economy increased<sup>19</sup>. During the same period, however, interest rates were cut by 2¾ percentage points, while structural PSNB moved from an estimated small deficit of 0.6 per cent of GDP in 1985-86 to a larger deficit of 2.1 per cent of GDP in 1987-88. Both fiscal and monetary policies were pro-cyclical, contributing to increased volatility of output during the late 1980s and early 1990s. When monetary policy was finally tightened, interest rates had to be increased by more than would otherwise have been necessary to offset the cumulative loosening of fiscal policy.

One possible explanation for these pro-cyclical changes in both fiscal and monetary policy is that the Treasury's estimates of the structural improvement in output growth implied by its medium-term growth projections were too optimistic. There is some evidence of this in Financial Statement and Budget Reports (FSBR) - the assumed growth of GDP (excluding North Sea oil) underpinning the 5-year medium-term economic projections was revised up incrementally from 2¼ per cent in the 1986 FSBR to 3 per cent in the 1989 FSBR. Consequently, at that time, inflationary pressures as measured by an implied output gap would have been significantly underestimated. The implied structural improvement in output growth turned out to be too optimistic.

<sup>18</sup> For more detail see two Treasury publications: *Fiscal policy: Lessons from the last economic cycle*, November 1997; and *Delivering Economic Stability: Lessons from macroeconomic policy experience*, November 1998

<sup>19</sup> At the time, the Treasury did not publish output gap estimates. It is certainly true that the official data were subsequently revised up somewhat.

This is why the Treasury bases its public finance projections on the low end of its forecast opportunity range for economic growth. In the medium term, its public finance projections are also based on a cautious assumption for trend growth (2¼ per cent for Budget 2001), which is audited by the National Audit Office. And in setting the direction for fiscal policy, the Treasury now pays closer attention to cyclically-adjusted fiscal aggregates. These are derived by regressing spending and revenue totals against estimates of contemporaneous and lagged output gaps. The resulting estimates indicate the responsiveness of the public finances to an average cycle and allow underlying, or structural trends in the indicators to be seen more clearly, after the estimated effects of the cycle are removed.

Finally, the Treasury 'stress tests' its projections against a cautious case in which trend output is assumed to be 1 percentage point lower than in the central case, ensuring that fiscal policy is sustainable even if it misjudged the position of the economy in relation to the cycle. This approach, based on a cautious trend growth assumption and the use of the cautious case, minimises the risks that economic or fiscal shocks will require a change (including potentially a pro-cyclical change) in the direction of fiscal policy.

### The Policy Mix

How monetary and fiscal policy is coordinated is likely to have an impact on the policy mix. Simple textbook economics implies that tighter fiscal policy, by reducing domestic demand, means that a given inflation target can be achieved with lower interest rates. However, if there is a credible and permanent fiscal tightening through higher taxes rational agents may impute that the net present value of future taxes will be lower and therefore reduce their own private savings today. Depending on the strength of this effect, aggregate demand may not fall much and theoretically could even increase following a credible fiscal tightening.

There may also be wealth effects if long-term interest rates fall as people become more confident about the sustainability of the long-term fiscal position. The fall in long rates boosts wealth, which in turn boosts demand. The fiscal tightenings in Ireland and Denmark in the 1980s are often cited as examples of this effect. These uncertainties over the relationship between fiscal policy and aggregate demand suggest the impact on the exchange rate of a fiscal tightening may be ambiguous and difficult to predict<sup>20</sup>.

In the UK over the last 4 years there has been a fiscal tightening in structural terms of 4.5% of GDP. However, over this period, sterling's nominal effective exchange rate has risen by 6.4 per cent. Indeed, while the structural fiscal tightening in the UK has exceeded that in the euro area

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<sup>20</sup> See for example Goldman Sachs UK Weekly Analyst, 10 March, 2000.

by 3 percentage points on OECD estimates, sterling has appreciated by 12.6% against the Deutschmark over the same period.

What is important for coordination is having clarity in fiscal plans so that the MPC's task of hitting the Government's inflation target is made easier. The UK fiscal plans have been set by the Government in a medium-term framework and the MPC is aware of the need to incorporate these plans as part of the picture when assessing the future path of interest rates needed to meet the inflation target. Of course in any year, public spending may not turn out at the planned level and reserves may not turn out as expected. But the MPC has a well-informed view about how the Government will react to such shocks. Successive Budgets have also established the practice of trying to move back towards the path laid out in the previous Budget. All of this means that the Government's fiscal reaction function is better known to the MPC, just as the MPC's reaction function is well-known to the Government.

#### Treasury/Bank relations

The granting of independence to the Bank has had other beneficial effects that have often been ignored. For example, as noted by Ed Balls, the Chancellor has more time to devote to other policies now that he does not have to worry about setting interest rates.<sup>21</sup>

The other large benefit has been an improvement in relations between the Bank and the Treasury which is partly the result of having greater clarity of roles and responsibilities. This is because each institution is now concentrating on its area of comparative advantage, exploring its distinctive capabilities. John Kay has recently argued that this is the route to success for companies. We shall see over the next few years whether it also applies to institutions like the Bank and the Treasury.

### **VIII. International Coordination Arrangements**

The discussion so far has focussed almost exclusively on UK arrangements. Most countries that have an independent central bank also have in place arrangements designed to ensure policy coordination. This normally involves at a minimum the presence of a Finance Ministry representative at monetary policy meetings. Table 2 below illustrates these arrangements for a number of countries, or groups of countries in the case of Euro area, that have an independent central bank.

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<sup>21</sup> In the terms of the model outlined in section II, the objective of the Treasury is increasing the natural rate of output, i.e.  $y^N$

**Table 2: Policy Coordination Arrangements Internationally**

<b>Country</b>	<b>Operational or goal independent?</b>	<b>Coordination arrangements</b>
UK	Instrument (Goal set by Government)	HM Treasury representative attends MPC meetings.
Euro area	Goal	President of ECOFIN can attend ECB Governing Council meetings and can submit “motion for deliberation”  Commission can also send a representative but he/she cannot submit a “motion for deliberation”
Japan	Goal	A Ministry of Finance official attends monetary policy meetings
Canada	Instrument (Target is set jointly by the Government and Bank of Canada)	Minister can, after consulting the Governor of the Bank of Canada, issue a written directive concerning monetary policy.
Australia	Goal	The Government reserves the right to comment on monetary policy. At times of disagreement, the Government can issue a written directive.
New Zealand	Instrument (Goal defined as inflation objective set by Government)	Regular exchange of information between Treasury and Reserve Bank. Fiscal Responsibility Act ensures a medium-term focus for fiscal policy that is highly transparent.

It is well beyond the scope of this paper to analyse the effectiveness of coordination in all these cases. But the approach developed in this paper – of establishing principles behind the design of the macroeconomic framework and of the institutions which make it up and then assessing the effectiveness of that framework – could be applied.

Because of its unique construction with a single independent central bank working alongside twelve fiscal authorities the Euro area is a particularly fruitful case study. Although the framework is still in its infancy the experience and practice of the first two and a half years of the operation of the EMU policy framework is encouraging a serious debate amongst policy makers, supported by a developing academic literature. A recent paper by Jacquet and Pisani-Ferry provides a very useful introduction to the issues.<sup>22</sup>

### Short-run Stabilisation and Policy Coordination

Relatively little comparative work has been done as yet comparing the effectiveness of different policy frameworks. This section looks at one characteristic of policy frameworks, that of stabilising the economy. It argues that membership of monetary union potentially puts more weight on fiscal policy. It concludes that, at the very least, automatic stabilisers should be allowed to operate freely as long as budgetary positions are sound and sustainable.

The discussion so far has implicitly assumed that monetary and fiscal policy are perfect substitutes. Clearly this assumption helps to keep the analytical solution of the policy game tractable. However, in practice in the UK monetary policy is increasingly seen as the primary tool for short-run stabilisation whilst fiscal policy contributes to this role through the automatic stabilisers. But in EMU the ECB sets monetary policy for the Euro area as a whole which further complicates the assessment of the respective roles in practice. It is helpful then to ask what the main differences are between fiscal and monetary policy for the purpose of short-run stabilisation and whether this has implications for the effectiveness of policy coordination.

One argument against the systematic use of discretionary fiscal policy for short-run stabilisation is that it is considerably less flexible than monetary policy. MPC meetings are scheduled at least once every month with the option of additional meeting should the need arise. The ECB Governing Council meets fortnightly. After a meeting of the monetary authority a change to the policy interest rate can be announced almost immediately and implemented via the money markets.

It might be argued that stabilisation is not the primary aim of monetary policy but only as far as it helps to achieve its price stability objective. But

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<sup>22</sup> Economic Policy Co-ordination in the Euro Area, what has been achieved? What should be done? January 2001

keeping aggregate demand in line with the potential of the economy is a key task in pursuit of price stability – so the two issues are very much interrelated. By comparison, the so-called inside lags in fiscal policy are a function of the political process and the effectiveness of fiscal management and these can at times be considerable, especially if there is a lack of political consensus over the appropriate fiscal policy. Inside lags may be the cost of having multiple roles for fiscal policy: redistribution of income, provision of public services, inter-generational fairness among others. Multiple goals require a wider, more inclusive consultation process.

In the UK changes to taxes require the passing of a new Finance Bill and Parliamentary time, although spending plans can be amended without the need for a new Bill. Under the Provisional Collection of Taxes Act, the UK Government can change tax rates for up to four months on the same day as a motion is passed in Parliament until the new Finance Bill becomes law, helping to shorten the inside lags. The different countries which make up the Euro area have different legislative arrangements for changing taxes at the national, and also, where appropriate, the regional level.

These institutional constraints also make it more difficult to reverse fiscal policy rapidly whereas the MPC or ECB Governing Council can hold another meeting at short notice and reverse previous decisions if need be. There is also some evidence that fiscal policy is subject to impact lags (between the time policy is implemented and its effect on output) just as there are lags in monetary policy<sup>23</sup>.

Fiscal policy can also have powerful long-run effects on potential output. Deadweight losses can be reduced by lowering marginal tax rates and enlarging the tax base which both help to improve economic efficiency. Payroll taxes can have powerful effects on work incentives that impact in the long-run on the NAIRU. Therefore, frequent changes to the tax regime can result in undesirable economic inefficiencies that have to be offset against any gains in terms of short-run stabilisation.

From an efficiency and welfare standpoint, the above analysis would suggest that it may be optimal to set fiscal policy for the medium-term to focus on other goals of policy such as those mentioned above. Short-run stabilisation would be left to monetary policy buttressed by support from the automatic stabilisers.

However, the policy environment in EMU and notably the existence of a single interest rate for the euro-area requires a reconsideration of the stabilising role of fiscal policy. The starting point remains that achieving credibility is one of the guiding economic principles of the overall policy framework. It is what underlies the Stability and Growth Pact, backed by the Broad Economic Policy Guidelines (BEPGs), which together form the fiscal policy framework of EMU.

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<sup>23</sup> See Blanchard and Perotti (1999) for the US case.

This framework is based on hard rules which pose restrictions on behaviour, such as the running up of excessive deficits or unsustainable debt positions. These are complemented and operationalised through a rigorous process of surveillance and peer review based on the annual review of stability and convergence programmes.

So far this framework has been effective in sustaining improvements in the fiscal position of the Euro area since the launch of EMU. It is important, however, that this framework also allows sufficient flexibility to react sensibly to economic developments. In other words there needs to be the right degree of constrained discretion. In particular, there must be scope to accommodate the impact of the economic cycle and room to act in the event of exceptional economic shocks through allowing the automatic stabilisers to operate based on an assessment of the cyclical position of the economy and its impact on the public finances.

Taking account of the cyclical position of the economy when evaluating the appropriate fiscal stance helps to prevent governments from relaxing policy inappropriately by assuming cyclical improvements in the public finances are structural.

For the individual members of the Euro area, if anything more so than for non-Members, fiscal policy should be available to help to stabilise the economy through the operation of the automatic stabilisers. These movements support monetary policy by dampening economic cycles without putting at risk the long-term sustainability of fiscal policy. It is essential that this inbuilt capacity to respond to changing economic circumstances is not overridden.

By focusing on the underlying position, this approach also allows the automatic stabilisers to dampen the effects of the cycle by boosting aggregate demand when the economy is below trend, and reducing aggregate demand when the economy is above trend. The strength of the automatic stabilisers depends on the characteristics of the particular taxation and spending regimes, for example the progressivity of taxes. But when assessing the extent to which the fiscal policy framework is supporting monetary policy, the strength of the automatic stabilisers should be considered.

In principle it should be possible to go further and modify the present arrangements for implementing discretionary fiscal policy and reduce institutional lags, making it a more flexible tool for macroeconomic stabilisation over and above the automatic stabilisers. But, there may be a cost in doing so in terms of the cost of legitimacy especially if there is less time provided for Parliamentary scrutiny at the national level. Moreover, fiscal multipliers may be endogenous to the general policy framework of the Government and may change as a result of more active use of

discretionary fiscal policy<sup>24</sup>. Taylor (2000) has indicated some further complications in the use of discretionary fiscal policy.

The important role of fiscal policy and of automatic stabilisers in the EMU context is being increasingly recognised in the policy debate at national and EU level.<sup>25</sup> Recent European Council, ECOFIN and Commission statements have stressed the importance of focusing on the underlying health of public finances by taking proper account of the cycle when judging the appropriateness of the fiscal stance. Moreover, cyclically adjusted indicators are being used more and more to assess fiscal positions.

This trend reflects the challenge faced by policy-makers in the Euro area and elsewhere as growth prospects are revised down. Fiscal balances are likely to deteriorate for purely cyclical reasons. From an economic standpoint the automatic stabilisers should be allowed to operate fully in those countries that have achieved the medium term objective of the Stability and Growth Pact of a budgetary position of 'close to balance or surplus' and have sustainable debt levels. In other cases it is possible that countries will decide to allow the automatic stabilisers to feed through only in part. In practice the overall structural fiscal position of the Euro area may improve or may not depending on the balance of these forces. In either case the fiscal and monetary authorities should be encouraged to discuss the impact of the slowdown on budgetary positions at Euro Group and ECOFIN, the two main fora for policy coordination discussions. Ultimately the ECB should recognise the role of structural fiscal adjustment in its reaction function to monetary policy.

## **IX. Conclusions**

The new UK macroeconomic framework has been developed on the principles of credibility, flexibility and democratic legitimacy. Some have argued that there is a price to be paid in having an independent central bank in terms of less coordination between the monetary and fiscal authorities. The purpose of this paper is to show how the specific UK institutional arrangements have been set up to avoid these possible costs and conflicts. The main conclusion is that the establishment of this kind of independent Central Bank based on these three principles improves not only monetary policy, but also fiscal policy and their co-ordination.

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<sup>24</sup> This is an issue not just for fiscal policy but policy frameworks in general. Once the structure of policymaking changes, such as we have observed for monetary policy recently, the relationship between instrument and macroeconomic variables may also change.

<sup>25</sup> See the joint ECOFIN and Commission report on the Contribution of Public Finances to Growth and Employment (March 2001), the conclusions of the Gothenburg European Council (June 2001) and the Commission Public Finances Report (June 2001).

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