Monetary Policy Under Labour

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1 Introduction

By 2006, monetary policy in the UK was approaching its "end of history" moment. The arrangements that had evolved to target inflation after 1992, culminating in Bank of England independence and the creation of Monetary Policy Committee (MPC) in 1997, had not only slain the inflationary dragon but appeared to have delivered wholesale macroeconomic stability. Gordon Brown's claim to have found the ingredients to end "boom and bust" seemed credible and central bank independence as a means of securing this stood as a proud monument to Labour's economic achievements.

But the more recent global economic chaos has tarnished this record and is now leading to global debates about the proper conduct of monetary policy, in particular the right mandate to give to central banks and the framework that is needed to deliver it. Thus, despite the achievements, a legacy of monetary policy under Labour will in the form of some unanswered questions.

In this paper, we will go through Labour's record (and the record of the MPC). We will discuss the successes that it enjoyed up to 2007 and debate the lessons that are being learned as a consequence of the experience since then. The first ten years of Labour saw a remarkable period of stability whether benchmarked against the UK's historical record or against global experience. This was a period that was dubbed the "great moderation" and much has been written about its causes – good luck, good policy, and structural change being the three main candidates. Throughout this period, inflation remained within 1% of the government's target and interest rates moved in small steps (typically 25 basis points).

Since late 2008, the story has been quite different. Following the failure of Lehman Brothers, a period of global economic turmoil ensued with the UK experiencing a 6% fall in GDP. This led to a dramatic loosening in monetary policy and from March 2009, a series of unconventional policy measures frequently referred to as *quantitative easing*. The cornerstone of this has been purchases of almost £200 billion of government debt via the creation of central bank reserves.

We write this paper at a point, therefore, when some of the conventional wisdom on monetary policy is being debated again after a significant period of consensus on its broad goals. Unlike fiscal policy, Labour's record on monetary policy is not an election issue. Indeed, all major political parties in the UK now accept the broad notion that monetary policy is best conducted independently and technocratically. Back in 1997 when the Bank of England was granted independence, it was not greeted with universal acclaim, though — it would "damage the future of this country" according to the Conservatives (the policy was supported by the Liberal Democrats, who had put forward a proposal to make the Bank independent in their 1992 election manifesto). Conservative opposition to Bank of England independence was finally reversed in 2000. However, the recent financial crisis and subsequent recession have taken the gloss off the current government's claim to have provided an end to boom and bust, for which independent monetary policy was often given star billing.

In what follows, we will discuss the lessons from the past 13 years and the debates about how lessons can be learned for the future conduct of policy and institutional change.

2 The policy framework

The story of monetary policy under Labour actually begins five years earlier with the UK's exit from the ERM on Black Wednesday in September 1992. The idea of using monetary policy to target the exchange rate was roundly discredited and the subsequent focus moved towards inflation targeting — focusing monetary policy on meeting a numerically specified target for inflation. The then Governor of the Bank of England, Robin Leigh-Pemberton saw this as an "opportunity to demolish the image of the United Kingdom as a second-rate inflation-prone economy".[1]

[1] Cited in King (2002).

We will first discussed the intellectual rationale for inflation targeting and then discuss how it has been implemented in the U.K.

2.1 Inflation targeting in theory

Inflation targeting was born out of an era of macro-economic instability and inflation volatility in developed economies in the 1970s and early 1980s.[2] Some of this was put down to inflation bias – with governments having incentives to create surprise inflation to gain a temporary reduction in unemployment ahead of elections and to increase seigniorage. Thus, the watchword of monetary policy increasingly became credibility in the face of such incentives. One way to achieve this was to have a clearly defined goal and a conservative central bank, insulated from political influence, to implement it.[3]

To establish the credibility of an inflation target, the central bank could be thought of as implementing a policy rule underpinned by a systematic response of interest rates to inflation, one that satisfied the "Taylor principle". This enshrined the idea that monetary policy should "lean against the wind", raising interest rates by more than one-for-one with inflation. This would increase real interest rates, reducing total demand, and thus inflationary pressure. This idea was often formalized in macroeconomic models with a "Taylor rule". By acting in this way, the central bank could persuade agents that they should rationally expect inflation at target in the future, as deviations from target would eventually call forth sufficiently large changes in interest rates to offset them. Small changes in policy could then steer the economy by affecting expectations. Central bank credibility rested on agents' beliefs that the bank was following the Taylor principle and would raise and lower rates in accordance with it. This way the inflation target would provide a nominal anchor for the economy.

However, unlike the Taylor rule, which laid down a specific numerical response of interest rates to inflation, inflation targeting was not a policy rule in this strict sense. On the one hand, there was a specific numerical target for inflation. But as precise control of inflation is not feasible, it is not possible for the public to observe whether the rule is being followed just by looking at the central bank's actions. Furthermore, inflation targeting

[2] See Bernanke and Woodford (2005) and Bernanke et al (2007) for background discussion.

[3] See, for example, Rogoff (1985).

gives the central bank freedom to meet the goal of getting inflation to target in any way it thinks best. So inflation targeting actually grants a lot of discretion to the central bank. In particular, there is no intermediate target such as money growth or exchange rates that it is obliged to meet. Strategies with intermediate targets are closer to being rules in that the central bank has more direct control over the intermediate target, and can be judged accordingly. Inflation targeting could be said to make the inflation forecast the intermediate target, but the construction of this forecast itself requires some subjective judgment and is not objective data unlike other intermediate targets.

This where the other features of inflation targeting, beyond the numerical target, come to the fore. The framework of independence of the central bank, transparency of the central bank's decision-making, and accountability to the public, are the means by which "discretion" is "constrained" and inflation targeting moves closer to being a policy rule that can have credibility with the public.

In this framework, central bank independence takes monetary policy decisions out of the hands of elected politicians who would be tempted to put other objectives before meeting the inflation target. Transparency allows the public to judge whether the independent policy-makers are acting reasonably given the target that should be met and the available data and analysis. Accountability compels the policy-makers to justify breaches of the target and persuade the public that these do not constitute a de facto change in what is being targeted.

This way of thinking solved the problem that had dogged fiat money systems which lacked a credible way of pinning down nominal variables. By delegating the task to central banks, one degree of uncertainty is eliminated — the willingness of politicians to make tough decisions if they arose at the wrong point in the electoral cycle.

The move towards inflation targeting with an independent central bank was part of an emerging international trend. This thinking system adopted in the UK was thus part of an international shift in thinking about macroeconomic policy management more generally. While nobody seriously believed that stabilizing inflation alone could stabilize the economy in its entirety, a divine coincidence was frequently invoked to suggest that even if policy makers did not care directly about output volatility, targeting inflation would be the best way to achieve that end.

Just how narrowly central banks in general followed their inflation target-

ing mandate has been a subject of debate. In their overview of international practice, Blanchard et al (2010) discuss this issue in the following terms:

> In practice, the rhetoric exceeded the reality. Few central banks, if any, cared only about inflation. Most of them mentioned "flexible inflation targeting", the return to a stable target, not right away, but over some horizon. Most of them allowed shifts in headline inflation, such as those caused by rising oil prices, provided inflation expectations remained well anchored. And many of them paid attention to asset prices ... beyond their effects on inflation and showed concern about external sustainability and the risks associated with balance-sheet effects. But they did so with some unease, and often with strong public denial
> — Blanchard et al (2010)

While (as far as we are aware) they did not intend this description to apply to the Bank of England, in particular, we will argue below that this characterizes very well how the inflation targeting approach has been applied pragmatically in the UK since 1997. The Monetary Policy Committee made frequent references to concerns beyond its narrow remit including house prices, exchange rate movements, and more general macroeconomic trends.

2.2 Inflation targeting in practice

Inflation targeting in the UK is often associated with Labour's decision to grant the Bank of England independence in May 1997 — one of the first announcements of the incoming government. But granting the Bank independence could also be seen as the culmination of a series of reforms begun by the Conservatives, starting from their first tentative experiment with inflation targeting in October 1992. A number of key features of the UK's monetary policy strategy thus predate the Labour government. This section reviews the evolution of inflation targeting, stressing the differences between the post-1997 Labour version and the earlier Conservative version.[4]

Beginning in 1992, the UK was one of the first pioneers of inflation targeting (with only New Zealand and Canada having begun earlier). With this approach to monetary policy being novel, many of the features that have

[4] The description of the pre-1997 inflation targeting regime draws on Bernanke, Laubach, Mishkin and Posen (1997).

subsequently become an accepted part of any inflation targeting system had yet to develop. There was no off-the-peg tried-and-tested inflation targeting regime to mimic, so many elements of the strategy were added piecemeal along the way.

The most basic requirement of inflation targeting is of course a numerical target for inflation. The Conservative government announced a target range for RPIX (the retail price index excluding mortgage interest payments) inflation of between 1% and 4% in October 1992, with the aim of bringing inflation down below the midpoint of the range (2.5%) by the end of the Parliament. This particular inflation target was not intended to be perpetual — subsequent Parliaments could extend or renew it. By 1995, the government was describing its inflation target as a point target of 2.5% with no surrounding range.

Importantly, and in contrast to the route taken by the other pioneers of inflation targeting, the Chancellor of the Exchequer retained the power to set interest rates. The Governor of the Bank of England was to act as the Chancellor's adviser on the best course for interest rates, and regular monthly meetings between the two were arranged to this end. In addition to the advice offered by the Governor, the Chancellor received counsel from a panel of six "wise men", a precursor of the external members of the Monetary Policy Committee. Importantly, the Bank of England's new role allowed for it to speak out publicly on monetary policy strategy. Disagreements between the Governor and the Chancellor were not unknown at the time.

In 1993, the "Inflation Report" made its debut. This was a document setting out the Bank's projections for inflation under the currently prevailing monetary policy stance. The report was an extensive discussion of the factors currently relevant for inflation and the risks and uncertainties clouding the forecast. This was an important exercise in increasing the transparency of monetary policy. The report should help independent observers come to a judgement about whether the current stance of monetary policy was reasonable given the stated goal of the inflation target. The forecasts in the report could be scrutinized and judged in relation to those produced by independent forecasters, with the report as a whole providing a focal point for the debate.

Another big step towards greater transparency was taken in 1995 with the publication of the minutes of the meeting between the Chancellor and the Governor. The minutes were published with a six-week lag. These provided a means for the Governor to put the Bank's view on record, and also forced the Chancellor to offer arguments supporting his chosen decision that could

be scrutinized by the public.

Finally, to avoid any suspicions of political interference with the production of the inflation statistics, the responsibility for compiling and calculating the price index was passed from the Treasury to a newly independent Office for National Statistics in 1996.

Thus many of the features of inflation targeting now taken for granted were already in place by 1997. However, one important ingredient was missing. Under the Conservatives' version of inflation targeting, the Bank of England's role was merely that of a mentor to the Chancellor, one that could publicly offer an assessment of the likely consequences for inflation of the Chancellor's actions. The Bank was the "conscience" of inflation targeting, but had no formal power. Labour's key reform was to grant the Bank independence. Although the Chancellor continued to set the goals of monetary policy, including the precise inflation target, the Bank had operational independence to try to meet this target in the way it thought best. In the language of the literature, the Bank had "instrument independence", but not "goal independence".[5] At the time the new arrangements were announced, the Chancellor did not make any significant change to the "goal". The inflation target continued to be 2.5%, albeit with a $\pm 1\%$ corridor added (previously, 2.5% had apparently been intended as an upper bound).

The job of setting interest rates was now delegated to an independent body, the Monetary Policy Committee, made up of the Governor, four senior officials of the Bank, and four external members.[6] But little in the way of detail was in place. Looking back in 2007 on these events, the current Governor of the Bank recalls how much hard work needed to be done to put the detailed procedures together:

> "(T)he new arrangements were designed and put in place in not much more than three weeks. They included the arrangements for briefing the Committee, the pre-MPC meetings, the format of the decision-making meetings of the MPC, practical matters such as the ordering of a sound system so that, in a break with tradition, it was actually possible to hear what was said in the Bank's older meeting rooms, and rehearsals of the meetings and voting procedures with staff members playing the

[5] This contrasts, for example, with the U.S. Federal Reserve whose much vaguer mandate effectively allows it to set its own goals.

[6] See Bank of England for an overview of the workings of the system.

> roles of the MPC members. So short was the time available that some of the dress rehearsals came after the first night of other parts of the policy process. Such was the adrenaline flow that at one rehearsal a row broke out about how a decision would be reached if the Committee split three-ways in equal numbers. .. But all was resolved and the show opened on Wednesday 4 June. At that first meeting the MPC raised interest rates by 25 basis points, as it did at its two subsequent meetings. (King (2007))

After a brief period of establishing norms and procedures, the arrangements have now become firmly cemented and have changed little since the inception of the MPC. The committee meets to be briefed by Bank of England staff before each decision. Its policy meeting begins on a Wednesday afternoon and concludes on a Thursday morning with a policy decision at noon. Only twice has practice diverged from this with an emergency meeting following the events of September 11, 2001 and an unscheduled meeting so that the Bank of England could join in coordinated cut in interest rates with other leading central banks in October 2008 in the teeth of the financial crisis. Extra meetings are scheduled to prepare the forecast and the inflation report on a quarterly basis.

The membership of the committee from the start has included four independent members appointed by the Chancellor. The Treasury is present at MPC meetings only to observe the decisions. The decisions of the committee are reported in monthly minutes, which also report individuals votes. These minutes are not verbatim accounts – they are attempts to summarize the broad thrust of the discussion, the key points of agreement and disagreement and their implications for the policy outlook.

It was quickly established that the MPC would air its disagreements openly and dissent has been common – and the Governor has voted in a minority on three occasions to date. Members of the MPC are free to express their views in public. They appear regularly before the House of Commons Treasury Select Committee, and occasionally this has brought out further differences of views on the committee. Members of the committee also regularly makes speeches and give newspaper interviews. The extensive network of agencies run by the Bank of England affords the MPC regular opportunities to travel around the UK and to meet with business and other audiences.

Although appointed by the Chancellor, the external members served three-year terms and acted independently once in post. Some did argue that

their independence might be jeopardized by being able to seek reappointed, which would require the Chancellor's consent. Many members served only one term though.[7] Since 2009, there has been open advertising of vacancies. Central bank independence in the UK has created a more prominent role for economists at the heart of the policy process for the first time. It has also created a division of labour in which the Treasury has stayed out of monetary policy. And membership of the committee has been dominated by economists. This has included some academics, but also business and city economists. The membership from among the bank staff is also geared heavily towards technical and policy expertise.

Given the effective transfer of power from Chancellor to MPC, some extra accountability mechanisms were thought appropriate. If inflation fell outside the new $\pm 1\%$ corridor surrounding the central target then the Governor was obliged to write an open letter to the Chancellor spelling out why this had happened and what steps were being taken to rectify it. In addition, the MPC was made formally accountable to Parliament through the Treasury Select Committee. New appointments to the MPC were examined by the Treasury Select Committee.

The purpose of the corridor was two-fold. First, to allow some flexibility in not having to meet the target in the short term. Given the long and variable lags in controlling inflation, such precise stabilization of inflation would be neither possible nor desirable — to attempt it would likely destabilize the real economy. It thus had to be made clear that the MPC was not expected to achieve the impossible, and that there should be no stain on its reputation if inflation was not exactly at 2.5%. Second, the letters written at the thresholds strengthened accountability: there had to be a specific point where the drift of inflation away from target had to be justified explicitly. The idea was not that the letters should be seen as the MPC's justification of its failure to meet the target, but more as a description of the special factors (supply shocks) that made it difficult or unwise to seek to rapid a return of inflation to target.

One consequence of gaining independence was a refocusing of the Bank of England. The Monetary Analysis side of the bank recruited and retained a number of economists focused on supporting the MPC's monthly decisions. Throughout the the inflation targeting period, the Bank has been heavily

[7] The longest serving external member has been Kate Barker, who served three consecutive terms.

influenced by the (by now) standard New Keynesian framework where constant inflation was the optimal policy at a zero output gap. This lead to the development of a variety of DSGE models which could be used as a guide to policy. The Bank of England has never gone the whole way on the latter. But it did refashion its model in this direction with the introduction of Bank of England Quarterly Model (BEQM) in 2003. However, aware of the fact that stylized versions of such models do a poor job at capturing many features of the data, its core model was supplemented with a variety of non-core non-structural equations.

As part of the institutional reform, the Labour government set up a financial regulator which pulled together a variety of previously separate bodies. The task of banking supervision was taken away from the Bank of England. The Bank, however, retained its responsibility for financial stability with a wing set up and a Deputy Governor to oversee it. The Bank has since published its Financial Stability Report to provide commentary on these issues. However, crucially, the Bank has had few (if any powers) to regulate the financial system. Part of the arrangements included a tri-partite committee comprising the Chancellor, the head of the FSA and the Governor of the Bank of England to oversee events of a systemic nature.

Where the MPC has generally remained more reserved was on questions of fiscal policy. It takes the government's fiscal projections and policies as given in reaching its policy judgements and has not chosen to comment publicly on these, although the Governor has occasionally ruffled feathers. Equally, the Treasury refrained throughout the period since 1997 of commenting on the Bank's policy decisions in public. Thus, the separation of monetary and fiscal policy has remained a core element of the (informal) institutional arrangements and the subsequent experience.

Labour cannot take the credit for introducing inflation targeting. However, the reforms in 1997 made a significant contribution towards strengthening the framework and institutionalizing a transparent and accountable system of policy-making. The fact that there is now broad political consensus on the need to maintain an independent monetary policy process is perhaps the greatest indication of the potence of these reforms.

3 The experience

We divide our discussion of the experience into two parts. First, we begin by discussing the first ten years of the experience where the economy was stable. We then look at the post-2007 period and the adoption of unconventional policy measures by the Bank.

It should also be added that in addition to the independence of the Bank of England and the actions of the MPC, the Labour government took two other crucial monetary policy decisions in 1997 and 2003. These were its assessment of the so-called "Five Economic Tests" for joining European Monetary Union. While the government's policy was that it favoured membership in principle, it argued that there needed to be evidence of sufficient convergence and flexibility as a practical matter before joining could be contemplated. The Treasury published assessments of the Five Economic Tests in October 1997 and June 2003. In both cases it was concluded that further progress was needed before the government could recommend joining. This paper will not rehearse the well-known arguments in favour of and against joining a monetary union, but will instead assess the record of the independent monetary policy the Labour government chose to retain.

3.1 The first ten years

Before the 1990s the UK could hardly be held up as a paragon of macroeconomic management. In this context, the period 1997–2007 was a period of remarkable stability in inflation and output growth compared to the UK's past history. Indeed the UK went from being one of the most volatile major economies to being one of the most stable. Tables 1 and 2 document the experience for different decades (Table 1) and different governments (Table 2). Inflation has been both lower and more stable under Labour than in any period since the 1970s. This time has also been a period of stability in both inflation and growth across much of the world, often dubbed the "great moderation". While this ten-year period was one of macroeconomic stability, the global environment was not always benign. Even before the 2007, there were financial crises and large swings in asset prices around the world. House prices and commodity prices were also volatile. Furthermore, this period was also punctuated by wars and terrorism. This section briefly discusses how the MPC navigated these choppy waters.

The MPC met for the first time in June 1997, and its first decision was

to increase interest rates by 0.25%, taking Bank rate to 6.5%. A further two 0.25% rises followed in the next two meetings. At the time, inflation was close to the target, but the committee thought that domestic demand pressures called for tighter monetary policy to ensure that inflation was forecast to be at target in two years time. On the other hand, the appreciation of sterling was offsetting these risks to some extent. By June 1998, there had been two further 0.25% rises in Bank rate taking it to 7.5%, the highest it has so far reached since independence. This was against a background of rising wage growth and headline inflation, leading to some fears about second-round effects on wages.

By October 1998, interest rates were on a falling trajectory. The Asian financial crisis, the Russian default, and the collapse of Long-Term Capital Management led to a deterioration in world economic activity that was expected to affect Britain. Furthermore, inflation was already falling. In light of this, a series of 0.25% interest rate cuts followed, and the pace was quickened in February 1999 with a 0.5% cut. Interest rates bottomed out at 5.0% in June 1999 as forward-looking indicators showed improvement.

Bank Rate was not to stay down for long, though, with a new tightening cycle following shortly afterwards. Initially, the risks were finely balanced, so the first increase had the flavour of a preemptive response to signals that the UK and the world economy were in better condition than previously thought. Further rises followed, taking Bank rate to 6.0% by February 2000. At the time, inflation was subdued, but the strength of domestic demand meant that the Bank's forecasts were for inflation to rise over the next two years. Large rises in house prices were also apparent at the time. The MPC erred on the side of caution and continued to raise rates.

Two debates that were an ongoing feature of this time period were whether there had been a permanent favourable shift in the UK's terms of trade, and whether there had been a rise in the trend rate of productivity growth. Both of these debates made judgements about long-term inflationary pressures harder to reach by making it more difficult to estimate the output gap and how much of the appreciation of sterling was temporary. This can be seen in Figure 10, which shows the relative occurrence of words relating to "domestic supply factors" relative to "domestic demand factors" increased during the early years of the MPC.

During 2000, stock markets began to fall and the US economy weakened, though it was not yet clear whether a "soft landing" would be achieved. At this time of uncertainty, the MPC chose to keep Bank rate stable. As

the falls in asset prices continued into 2001 and the outlook for the US and world economy deteriorated, the MPC began to ease policy. A succession of interest rate cuts followed, with Bank rate falling to 5.0% by the time of the MPC's regular meeting in September 2001. The next week brought the 9/11 terrorist attacks, and the consequent fears of a collapse in confidence. A special meeting was convened on 18th September to consider the risks to the UK economy. While there was debate about whether a large cut was needed, in the end the committee considered that a large movement of interest rates might itself be destabilizing at such a time. A more modest reduction of 25 basis points was chosen.

Although UK economic growth proved fairly resilient over this period, at the time there were worries that the recession in the US and the fallout from 9/11 would lead to a slowdown. Given the balance of risks, further Bank rate reductions followed, including a 0.5% cut in November 2001. By December, interest rates had reached a trough of 4%, where they were to remain for the whole of 2002. In the middle of 2002 there was a noticeable dip in inflation associated with falls in seasonal food prices and the price of oil. Inflation almost fell below 1.5%, which would have triggered the first letter from the Governor to the Chancellor. However, the MPC perceived that these factors supporting low inflation would only be temporary, so decided not to cut rates. But by February 2003, further impetus for rate cuts was provided by weakness in the world economy in the light of geopolitical uncertainty from the likely war in Iraq. Stock markets were also continuing to fall markedly around the world. But RPIX inflation was now robust, partly reflecting continued strong growth in house prices. Nonetheless, the MPC chose to reduce Bank rate to 3.75%, and followed this with a further 0.25% cut in July.

The negative trends of early 2003 had gone into reverse by the end of the year, with stronger growth in the US and a strong rebound in stock markets. Furthermore, house price inflation continued to push RPIX inflation above target, and was also believed by some to be contributing to the strength of consumption growth. The MPC changed course, and starting raising rates in November. Inflationary pressure remained strong though, partly owing to the beginning of a trend that was to cause increasing concern over the coming years: the rise in commodity prices. This was first felt in oil prices, which staged a significant rise in the second half of 2004. By August 2004, the MPC had raised Bank rate to 4.75%.

One notable event of this time was the Chancellor's decision to change

the inflation target in December 2003. The use of RPIX inflation was abandoned and the new CPI (Consumer Price Index) was adopted. The CPI is comparable in construction to the eurozone's Harmonized Index of Consumer Prices (HICP), leading some to speculate whether this move was a step toward joining the euro. However, the real rationale for this shift was less clear since the Treasury had ruled in June 2003 that the so-called Five Economic Tests for euro membership had not yet been met. The arguments offered in support of the change were largely technical: that CPI better accounted for consumers' substitution away from goods experiencing large price rises, and that the way it was constructed was more in accord with the national accounts. Furthermore, it could also facilitate international comparisons. Because of differences in the construction of the RPIX and CPI indices, the inflation target was simultaneously changed from 2.5% to 2.0% (maintaining the 1% band either side beyond which a letter would be triggered).

Putting aside the technical merits of CPI, most public debate at the time of the changeover centred around the different composition of the indices. The RPI (and RPIX) includes various measures of housing costs (some of which are calculated in a way that makes them move with current house prices) which are excluded from the CPI (which does though include an index of rents). The CPI also excluded council tax, which is part of RPIX. These exclusions sometimes open up a large difference between CPI and RPIX inflation (see Figure 6). And in 2003, with double-digit rises in house prices and double-digit increases in council tax, the gap between RPIX and CPI was especially large. While part of the gap (around 0.5%) can be explained as a result of the technical details of the two indices and is expected to be a permanent component of the difference[8], for much of 2003, RPIX inflation was around 1% to 1.5% higher than CPI inflation.

Although the inflation target was adjusted downwards to reflect the likely permanent difference between RPIX and CPI, the special factors at the time made the transition particularly challenging. With RPIX inflation much more than 0.5% higher than CPI inflation, it might appear to the public that the inflation target was being relaxed. One of the Bank's Deputy Governors famously remarked in commenting on this change that "when defending a free kick from David Beckham, you don't expect somebody to move the goalposts". Both of the special factors accounting for the difference between RPIX and CPI had attracted much media attention that year. There was

[8]See ONS (2003) for an analysis.

clearly a risk of jeopardizing public confidence in the inflation target. The benefits of the changeover on the other hand seemed modest compared to the risks.

These risks were magnified by the Chancellor's decision to retain the use of RPI inflation for all other official calculations of inflation, except the Bank's inflation target. Social security benefits are indexed to RPI. Tax bands are revised annually in line with RPI, as are tax credits. Even inflation-protected gilts are still indexed to RPI. The case of index-linked gilts is especially surprising given that one advantage of such assets is in providing a market-based measure of inflation expectations (albeit an imperfect one given liquidity premia). Such information is potentially very useful to the MPC in addition to surveys of inflation expectations, but is made less helpful when the expectations are of a different inflation rate from the one it is targeting. If CPI inflation always moved in line with RPI inflation then these issues would be a minor nuisance. Experience shows that RPIX and CPI do not always behave this way, and can even move in opposite directions on some occasions. There is no reason to suppose that such episodes will not recur in the future.

The continuing official use of RPI in the tax and social-security system has also made this index a focal point for both private- and public-sector wage negotiations. Most wage settlements that include an indexation provision make use of RPI inflation, not the CPI. So RPI remains the public's benchmark for inflation in many situations. The media continue to report the RPI statistics alongside CPI. The very existence of two parallel but sometimes divergent official inflation statistics has led to some in the media call into question (rightly or wrongly) the fairness of the CPI inflation rate, and in particular, make the argument that it is biased against certain groups in society. By making the calculation of inflation a contentious issue, the continued existence of the CPI and the RPI creates a public-relations problem for inflation targeting, as well as making the job of the MPC more difficult.

The environment facing the MPC in 2005 contained both upside and downside risks to inflation. On the one hand, oil prices were rising significantly, but on the other, rises in house prices had faded and consumption growth had begun to slow. Developments in world financial markets were also proving difficult to interpret. The low level of long-term real interest rates was frequently remarked on, though analyses diverged about the reasons ("global savings glut" versus "excess liquidity", for example) and the consequent implications for monetary policy. The MPC kept Bank rate con-

stant at 4.75% for much of the year, but in a finely balanced decision, resolved on a 0.25% cut in August 2005.

By 2006, long-term real interest rates were continuing to fall, share prices were rising, and UK house prices had returned to significant growth. This was against a backdrop of accelerating growth in the broad money supply and rises in energy prices. Though CPI inflation had remained stable and close to target for the first half of the year, there were clearly upside risks building up. With continued firm economic growth and tentative signs of a rise in inflation expectations as indicated by the spread between conventional and index-linked gilts, the MPC took action, raising Bank rate by 0.25% in August and November 2006. By December, CPI inflation had reached 3.0%, the maximum before a letter was triggered. One debate among the MPC members was whether this rise in inflation was simply a temporary blip, or whether it was the first manifestation of greater underlying inflationary pressure. On the one hand, there was rapid growth in money and credit, output growth was close to estimates of trend, and survey measures of inflation expectations were beginning to rise. On the other hand, wage growth had not picked up significantly. As can be seen in Figure 10, discussions of the extent of spare capacity were increasingly prominent in the Inflation Report. Given the balance of risks, the MPC decided upon another 0.25% rate rise in January 2007, taking Bank rate to 5.25%.

The next year brought the MPC its most difficult challenge thus far. By 2007, conditions in the US housing market were deteriorating rapidly and this was expected to exert a drag on US growth. However, global economic activity remained robust and there were significant rises in commodity and food prices during the year. In the UK, money and credit growth were still worryingly high, along with producer price inflation. Balancing this, growth in wages and employment was still weak. After falling back slightly in the first few months of the year, CPI inflation rose again and breached the 3% threshold in March.

When this data was released in April, it triggered the first open letter from the Governor to the Chancellor. In his letter, the Governor stressed the special circumstances that had led to inflation rising above 3%. These were the abnormal rise in food and energy prices, which were expected to be reversed. However, these factors did not account for all of the build up in inflation: strong domestic demand and rises in firms' markups had also contributed. The Governor stressed that the MPC had already taken action through a series of rate rises to head off this rise in inflation being factored

into future expectations. The Bank's central projection showed that inflation was forecast to return to target given the policy tightening, and that given the "long lags" in controlling inflation it made sense for the MPC to "look through the short-term volatility in inflation" and set interest rates "to keep inflation on track to meet the 2% target in the medium term". At its May meeting, the MPC was unanimous in agreeing a 0.25% rate rise, but was careful to point out that this was not a direct response to the recent inflation data, but was considered the appropriate adjustment of interest rates to bring inflation back to target in the medium term. In the following months, inflation fell back rapidly towards the 2% target.

By June and July the first tentative signs of stress were appearing in global financial markets. Though not immediately apparent at the time, this was to herald the onset of a new era of volatility and new and unfamiliar challenges for monetary policy.

Taking stock of the ten-year period from June 1997 to May 2007, Labour's independent Bank of England and its MPC achieved some remarkable successes. These successes were not so much in reducing inflation: the heavy lifting had already been done in the 1980s and early 1990s, before even the Conservative's introduction of inflation targeting — but rather in keeping inflation very stable and cementing expectations that it would remain low in the future. The historically low volatility of inflation can be seen in Table 1, and by the fact that the MPC almost passed its first ten years without the Governor ever having to write to the Chancellor to explain why inflation had moved more than 1% away from target. Back in 1997, a prediction that ten years would elapse before the first letter would have been met with derision from most commentators.[9]

The effect of Labour's new monetary policy framework can be seen even more starkly in terms of what inflation premia were demanded by bond-market participants, as revealed by the spread between conventional and index-linked gilts. This reflects both the expected inflation rate, as well as risk premia associated with uncertainty about inflation. The record of the Conservative's inflation targeting regime between 1992 and 1997 was also one of fairly stable inflation, but it is fair to say that in spite of this success, inflation expectations remained stubbornly high (mainly above 4%), suggesting that the public believed the next upsurge of inflation was always

[9] For example, Bean (1998) estimated that, based on the U.K.'s historical experience, inflation would be likely to diverge more than 1% from the target about 40% of the time.

just around the corner. After independence of the Bank of England in 1997, measures of inflation expectations exhibited a significant fall of almost 2% in the period to 2001 (Figure 7). The fall in long-term interest rates was even more marked. Long-term nominal interest rates dropped by 4% in the space of just over two years (Figure 4). The disinflations of the 1980s and 1990s achieved a similar reduction in long-term rates only over a period of about 15 years. While the Conservatives brought down inflation, Labour finally convinced the country that it was down for good.

This analysis cannot demonstrate a causal relationship between Labour's monetary reforms and the stability of the period 1997–2007 with certainty. Many countries were experiencing a "great moderation" at this time. However, a casual glance at Figures 4 and 7 does hint at a structural break around 1997.

3.2 The recent experience

From the middle of 2007, world financial markets grew increasingly volatile. The distress began in credit markets and subsequently spread more broadly. At the same time, many of the trends from early 2007 continued, namely rises in food and commodity prices. This was coupled with weakness in sterling and rises in the prices of some manufactured imports. The MPC continued with its earlier policy of raising Bank Rate, with a 0.25% increase in July. This turned out to be the last increase in Bank Rate to the present time.

Conditions in financial markets worsened further as the year went on, and the UK experienced its first bank run since 1866 with the run on Northern Rock in September. After some prevarication, the government was forced to step in and offer a blanket guarantee of Northern Rock's deposits. To stem contagion the government implicitly extended its guarantee to retail deposits at other banks, even those in excess of the deposit insurance limit. There were misgivings about the long-run consequences of such guarantees and, at the time, the Governor of the Bank of England expressed concerns about their "moral hazard" implications.

The MPC was also faced with a pressing problem. Spreads between Bank rate and lending rates in the interbank market had surged from almost negligible levels to more than 1% on some days. These problems did not go away, and there were tentative signs that they were beginning to affect access to credit for agents in the "real economy". The MPC resolved that the distress in financial markets posed a significant downside risk to inflation,

one which offset the remaining upside risks from cost pressures. A 0.25% cut was unanimously agreed in December 2007.

The story of 2008 was a gradual intensification of the disruption to the financial system. In the UK, commercial property prices began to fall and house price growth slowed sharply. There were increasing signs of a sharp slowdown in domestic demand. However, there was no let-up in the rise of energy and commodity prices around the world, implying a significant expected rise in UK inflation as these fed into gas and electricity prices. This cost-push shock occurring at the same time as a fall in demand resulting from the financial crisis made the trade-off faced by the MPC particularly stark. It opted to make a modest reduction of Bank rate by 0.25% in February.

By this time, central banks around the world were adapting their operating procedures so as to inject more liquidity (reserves) into the markets and the banking system. The major central banks launched a coordinated provision of extra liquidity on 11th March, which for a time led to some abatement in spreads. However, the fears in financial markets had moved beyond concerns purely about liquidity and on to credit risk, as exemplified by the funding crisis at Bear Stearns, which led ultimately to a Federal Reserve sponsored bail-out. At its April meeting, the MPC faced a similar problem to that of February. There was evidence of falling domestic demand owing to restricted access to credit, while at the same time inflationary pressure from commodity prices and a weak exchange rate had not subsided. The committee was split three ways between those arguing for no cut, a modest 0.25% cut, and a larger cut of 0.5%. In the end, the 0.25% cut prevailed, taking Bank rate to 5.0%.

The Bank's forecast of inflation rising above 3.0% was confirmed when May's CPI inflation was revealed to be 3.3%. Another open letter from the Governor was called for. A flurry of further letters were to follow as CPI inflation surged upwards, reaching 4.7% in August, 5.2% in September, before finally falling back to 3.2% in February 2009. During this period, CPI inflation was consistently more than 1% above target (an open letter was only required every three months), and moved as much as 3% above its target. While there was only one letter during the first ten years of the MPC, subsequent events have seen the number of open letters written reach around 50% of the maximum possible number. The MPC held Bank rate at 5.0% in response to the high inflation, though the committee was at this time split three ways between those arguing for a reduction in rates, a rise in rates, and a wait-and-see position.

Following the failure of Lehman Brothers in September 2008, the financial crisis that had first begun in August 2007 now entered a new phase and threatened to plunge the world economy into a deep depression. In spite of the elevated level of inflation, the MPC's fear of the consequences of the collapse in confidence triggered a series of dramatic cuts in Bank rate: 0.5% in October, 1.5% in November, 1.0% in December, and a further series of 0.5% cuts between January and March. This left Bank rate at 0.5% by March 2009. The rate had fallen precipitously by 4.5% in the space of only six months.

During this time, the MPC perceived that a larger stimulus was going to be required than that which could be delivered through reductions in Bank rate alone. Since the cost of storing cash is not proportionately large, interest rates cannot become negative to any significant extent. Furthermore, many central banks including the Bank of England were reluctant to go all the way to zero. The worries about literally zero interest rates were two-fold: that they would remove incentives to participate in money markets, and that with deposit rates already close to zero, further reductions in Bank rate would put downward pressure on loan rates, compressing the loan-deposit rate spread and adversely affecting the profitability of banks that were already struggling.

Even though short-maturity risk-free interest rates were now as close to zero as the Bank was comfortable with, this did not exhaust the scope for further monetary stimulus, albeit of an unconventional nature. Long-maturity interest rates on government bonds (gilts) were still well above 3%, and many interest rates faced by risky borrowers were yet higher still. Monetary policy now had to be exercised in a different way to gain traction over these other interest rates.

To this end, the Bank of England began a programme of *quantitative easing* in March 2009 at the time of its last rate cut to date. The groundwork for quantitative easing had in fact already been laid. Earlier in January, the Chancellor had announced the creation of an asset purchase facility (APF) with the aim of lubricating private credit markets that had seized up. The APF, although administered by the Bank, would purchase assets in exchange for Treasury Bills issued by the Debt Management Office. The arrangements for the APF were agreed in an exchange of letters between the Chancellor and the Governor in January 2009. The type of assets the APF was permitted to purchase were investment-grade commercial paper and corporate bonds, assets issued under the government's Credit Guarantee Scheme (CGS), as well as syndicated loans and some asset-backed securities (though the APF

has not made purchases in these last three classes to date). A upper limit of £50bn was set on the APF's purchases.

The initial operation of the APF could best be described as *credit easing* rather than *quantitative easing*. Although operated by the Bank, the APF at this stage was essentially a component of fiscal, not monetary, policy. This was ensured because the Treasury indemnified the APF against any losses on its portfolio. In spite of the APF's fiscal origins, it was envisaged at the time of its creation that it could potentially evolve into a vehicle for quantitative easing if desired by the MPC.

It was not long before the APF developed into a monetary policy tool. Even before it had made its first purchases, the February meeting of the MPC requested that the Governor seek permission from the Chancellor to use the APF to buy securities with newly created central bank reserves, rather than Treasury Bills. A new maximum of £150bn was requested. Since purchases on this scale would be large in relation to the private credit markets in which the APF could operate, it was also requested that the APF be allowed to buy long-maturity government bonds (gilts). The old maximum limit of £50bn was retained for private securities. Purchases of government securities had to be made in the secondary market, rather than directly from the Treasury itself.

The Chancellor agreed, and after the March 2009 meeting of the MPC, quantitative easing began. The new arrangements were that the MPC would vote separately on a Bank rate decision and then on a decision about the quantity of purchases to be made through the APF, respecting the upper limit set by the Chancellor. The composition of asset purchases was delegated to the Bank's executive (subject to the upper limit on private securities set by the Chancellor). The MPC decided to embark initially on a £75bn programme of quantitative easing. Monetary policy now had a new operational target: in addition to short-term interest rates, a specific quantity of central bank reserves was also being targeted.

Given the large quantity of government bonds being purchased, it was important not to create the impression of any link with fiscal policy. Accordingly, the Debt Management Office was instructed to go on with its previous issuance strategy for gilts and not to change its behaviour in response to quantitative easing. It was also reiterated that the objective of monetary policy remains the 2% inflation target, that quantitative easing was just another tool to be used to help achieve this goal, and that the Bank of England remains operationally independent.

Subsequent meetings of the MPC have decided to extend the scale of the quantitative easing programme in light of the sharp fall in UK economic activity and inflation in 2009. In May 2009, the target for asset purchases was increased to £125bn. By August, it was thought necessary to request a further increase to £175bn, and again in November to £200bn.

Has the policy of quantitative easing proved successful? It is far to early to say, especially when judged in terms of its final objective of stimulating demand and avoiding deflationary pressure. But on the narrower question of its success in influencing long-term interest rates, there is some evidence of a significant effect. Based on the assumption that market participants did not foresee the scale of the QE programme announced by the Bank, the downward movements of yields around the time of the announcement provide some evidence of its success. Meier (2009) concludes that QE lowered yields by approximately 40–100 basis points relative to what would otherwise have occurred.

4 Challenges for the future

After a long period of success, UK monetary policy must now face up to some formidable challenges. First, to learn how to control inflation and stabilizing the economy using previously untried tools. Second, to maintain the credibility of the inflation targeting regime in the face of greater interdependence between monetary and fiscal policy, and between monetary policy and support to the banking system and financial markets.

The transmission mechanism of monetary policy is — even in normal times — famous for its "long and variable lags". Much research has gone into quantifying the response inflation and output growth to changes in interest rates, and the time horizon over which such responses will occur. Steering inflation and other macroeconomic variables using quantitative easing is likely to prove an even bigger challenge owing to the lack of a reliable guide from past experience to judge how much a given injection of central bank reserves will stimulate the economy. Money multipliers may be unstable, as may be the velocity of money itself. The initial injection of £75bn of reserves was justified by the MPC as an amount sufficient to offset a 5% fall in nominal aggregate demand (which presupposes a velocity of money of approximately one). However, there is considerable uncertainty around this estimate. Among economists, there is much debate, both theoretical and

empirical, over how quantitative easing will actually affect the economy.

In addition to this first technical challenge, there perhaps the more fundamental task of redefining what is monetary policy in a world where the lines between monetary policy, fiscal policy, and the wide range of policies designed to support banks and financial markets have become increasingly blurred.

Given the form quantitative easing has taken in the UK, the most obvious tension is with fiscal policy. The asset purchase facility (APF) administered by the Bank has purchased £198 bn of government bonds to date. As of writing, the total stock of long-term government bonds outstanding is £914bn. Quantitative easing has effectively monetized more than 20% of government debt, and more than the total issuance of new debt since the scheme began. The Bank of England has returned to its roots as being one of the government's largest creditors. On the other hand, purchases of private assets have been almost negligible in relation to the £50bn limit set for such assets. Only £1.3bn of corporate bonds and £30mn of commercial paper have been purchased to date.

It has been stated that quantitative easing is not intended to ease the government's fiscal problems, and that the Debt Management Office (DMO) remains independent, and has been instructed to follow its usual remit. But there is an obvious link between the success of quantitative easing — lowering long-term yields — and the ease with which the government's deficit can be financed. The DMO's objective includes the aim "to minimize, over the long term, the costs of meeting the Government's financing needs". If quantitative easing is successful at flattening the yield curve, and the DMO follows its stated objective, then it should take advantage of this by changing the maturity of the bonds it issues to lower the government's borrowing costs.

The challenge for the MPC is in demonstrating to the public that it remains independent of the Treasury. The MPC's decision about the quantity of central bank reserves to create is subject to the maximum level of asset purchases set by the Chancellor. The rationale for the upper limit is that the Treasury continued to indemnify the APF against losses even when it was extended as a vehicle for quantitative easing. But the MPC's actual use of the APF has frequently rubbed up against the limits set by the Chancellor. In both May and August 2009 it was necessary for the Governor to request that the Chancellor raise the upper limit for asset purchases to permit the expansion of quantitative easing agreed by the MPC. Such permission was

sought immediately after the MPC's meeting in the time before the public announcement of the policy change. What would happen if the Chancellor refused to go along with such requests? While this issue is currently moot, it does raise the broad question of what an operationally independent central bank can do in the current environment.

Quantitative easing is currently operating at its currently agreed upper limit (£200bn). A further expansion will again require the Chancellor's permission. Even maintaining the current limit is subject to annual review. These requests for Treasury endorsement of what are supposed to be monetary policy decisions is certainly a challenge to the framework and any suspicions of a quid pro quo need to be avoided. However, given that the Treasury and ultimately the taxpayer are liable for any losses, placing some limit on the maximum exposure to risk is not unreasonable, making it hard to avoid this fiscal oversight of monetary policy.

Normal monetary policy operations conducted through short-term repos are not subject to any significant credit risk, nor the risk of capital losses owing to price movements since the Bank would not be taking an outright position. Quantitative easing changes that. The value of a portfolio of long-term bonds held outright can shift significantly with only modest changes in interest rates. Furthermore, the purchase of private securities also exposes the Bank to credit risk. Without the Treasury indemnity, the Bank could not credibly maintain a commitment to price stability in the future as it might need to expand its balance sheet, earning income to rebuild its capital if it were to face significant losses. The price of the indemnity is some loss of independence, whether perceived or actual.

So the separate conduct of monetary and fiscal policy thus raises challenges. Experience of the past thirteen years may suggest that any loss of independence is likely to be a temporary phenomenon and that the customary division of labour between the Treasury and the Bank of England on fiscal and monetary policy can be resumed. However, given the current state of the economy and the fiscal challenge that lies ahead, it may still be some time before this is the case. And this may create a need for a more joined-up approach, particularly as the path of fiscal tightening becomes clearer after the election.

The experience of the last few years has suggested that the claim of inflation targeting to be sufficient for macroeconomic stability is questionable. In particular, it has not prevented the emergence and spread of a dramatic financial crisis. For this to be entered on the charge sheet against infla-

tion targeting it would have to be argued that monetary policy could have prevented or ameliorated such a crisis had it been conducted differently.

The goal of inflation targeting is by definition to maintain the value of "money" in terms of goods. This raises a fundamental question: what is this "money" whose value is being defended? In no economy practising inflation targeting is money restricted to "reserves" — meaning those liabilities whose issuance is monopolized by the central bank. Money encompasses a much broader range of liabilities, most of which are the creation of commercial banks. To the extent that the public ought to perceive the various components of "money" as perfect substitutes for one another, this suggests a tension between monetary policy in the strict sense and financial policy and regulation more generally. What controls should be exercised on the creation of money by non-central bank institutions? Recent experience suggests that down-playing such regulation puts monetary policy in danger of being diverted from its core objective towards supporting those institutions that are able to create money should they get into difficulties.

It would be possible to envisage a monetary system where banks were obliged to hold 100% reserves against deposits, so banks had no control over the money supply at all. In such a situation, bank runs cannot be systemic problem as each bank can settle its liabilities to depositors using monetary base without the need for central bank intervention. In such a world it would be possible to draw a line between monetary policy and financial/regulation/supervision policy. However, such a narrow banking system would be a radical departure from current practice, and is unlikely to be adopted in the foreseeable future.

Without narrow banking, the central bank faces the challenge of separating liquidity crises from solvency crises. In principle, a central bank can support financial institutions during a liquidity crisis without any tension between this and its price stability objective. This is because the supply of reserves is increasing in line with demand. On the other hand, in a solvency crisis, an expansion of reserves may be inflationary because the collateral the central bank receives in exchange for its support may have a fair value lower than the value of the reserves it supplies to troubled financial institutions. Even if the quantity of reserves is not itself perceived as an inflation risk, central-bank support as lender-of-last-resort to commercial banks allows the latter to borrow from depositors at low risk-free rates, enabling such banks to make loans at lower interest rates. Access to credit at lower interest rates would stimulate demand and add to inflationary pressure. It may be diffi-

cult for central banks to distinguish clearly between liquidity and solvency problems, leading to an in-built tension between price stability and financial stability.

These problems are not confined to the creation of broad money by commercial banks. One issue that contributed to the financial crisis was the reliance of financial institutions on short-term financing of long-term liabilities. This shadow banking system would issue and roll over, for example, short-maturity commercial paper to finance long-term lending to securitization vehicles set up by banks and finance companies. This arrangement, for as long as it lasted, meant that the prices of inherently illiquid assets were pushed up, eliminating the liquidity premium that might otherwise be expected for such assets. The rise in borrowing costs and yields associated with the financial crisis reflected in part a return of liquidity premia to illiquid assets.

Many central bank interventions in financial markets have aimed to reduce such spreads and premia to what are considered "normal" levels: those prevailing before the onset of the crisis. They have attempted to do this through an expansion of lending of central bank reserves against a much wider pool of eligible collateral than was ever tolerated by central banks in normal times. Furthermore, central banks have lent reserves for longer maturities than the usual overnight or one-week lending periods. For example, the Bank of England's extended-collateral long-term repo operations and its Special Liquidity Scheme grant access to liquid reserves in exchange for longer durations and against assets that would be considered illiquid by markets without such policies in place.

It is not unlikely that there could be tensions between the Bank of England's policies to support financial markets and commercial banks and its ultimate goal of price stability, though this tension is probably latent at the current time. The Bank must come to some judgement about how much liquid central bank reserves it wants to inject into the financial system and thus how much it wants to reduce spreads and liquidity premia. Financial stability may require it to aim for the spreads that financial-market participants were expecting, or had previously become accustomed to. Price stability may require it to aim for spreads that are "normal" in the sense of not reducing the cost of borrowing for risky and illiquid lending to the point that it stimulates demand and inflationary pressure.

Exactly what additional instruments could be added to the monetary policy portfolio is one of the big issues going forward and coming out of the

current crisis. As Tucker (2009) observes, there will be need for some element of discretion in the macro-prudential instruments needed to secure financial stability. Whether these are part of the remit of the MPC is currently moot. At the heart of that debate lies a question of whether there really is a separation between monetary policy and credit policy. In the run up to the crisis, a number of members of the MPC expressed concern about the growth of leverage. And it is even possible that there would be have been a consensus to act on this had the instruments been available to the committee. However, it is clear that this would have, even then, been hard to justify solely in terms of an inflation targeting mandate. So, in the end, it maybe that these instruments are thought of as distinct from monetary policy because the goal, securing financial stability, is distinct. However, there is an irreducible common issue. The way in which Bank Rate affects the economy is crucially dependent on the state of the financial system in good times and bad. Measures to tighten or loosen credit conditions by other means are therefore likely to have a direct bearing on the conduct of monetary policy. So there will be a need for policy coordination at least.

As we discussed at the outset, inflation targeting around the world has been seen as one of the success stories of macroeconomic policy. However, the earliest experiments with inflation targeting date from the early 1990s, a time when the great moderation had either arrived or was imminent in many countries. Inflation targeting simply does not have an established track record in more turbulent times. This raises the question of whether its success can be replicated should the great moderation turn out to a temporary aberration.

One potential danger in more turbulent times derives from one of inflation targeting's advantages: its eclecticism. Inflation targeting recognizes that price stability is the ultimate goal of monetary policy, and then allows central banks great flexibility and discretion in how to go about achieving that end. While the central bank would usually have a particular operational target, a short-maturity interest rate, no other macroeconomic variable receives a privileged status as an intermediate target. This contrasts sharply with the monetary-policy strategies of the past, which have usually granted a special status to either monetary aggregates, exchange rates, or nominal GDP. But the many attempts to implement such strategies often demonstrated that the intermediates were less well connected with price stability than their advocates believed. Inflation targeting could be said to make the central bank's inflation forecast its intermediate target, but no constraints are placed on how inflation should be forecasted, nor on the extent to which the central

bank can exercise judgment about the confidence intervals surrounding its central projection.

By lumping together everything that might influence future inflation in the central bank's inflation forecast, an efficient outcome can be achieved in that the central bank is not forced to respond to an intermediate target that it believes is not providing the right signals about inflationary pressure. Providing the central bank's forecasts are sufficiently reliable in that they are not obviously biased and have a sufficiently small error on average, this design of policy gives it significant advantage over its competitors. But the advantage of an intermediate target may be less to do with its supposed tight relationship with inflation than the opportunity it gives the central bank to demonstrate it is actually doing what it says it will do.

Many commonly used intermediate targets (monetary aggregates, exchange rates) have the advantage that the central bank can exercise more direct control over them than it does for inflation itself. It is widely believed that the transmission mechanism of monetary policy to inflation works slowly at best, with the conventional wisdom being that interest rates affect inflation with a two-year lag. Even then, the relationship between the two is imperfect at best. Under these circumstances, it can be hard for a central bank to demonstrate commitment to its stated goals. The public sees only the failures to meet those goals and not the ultimate reason why: whether it was simply a mistake, or whether the central bank had decide to pursue goals different from its stated objectives. While intermediate targets are also not directly controlled by the central bank, the lags are likely to be shorter and the relationship with interest rates tighter than inflation itself.

The Bank of England has gone from a decade where no letters to the Chancellor were written to explain inflation deviations of more than 1% from target to writing six letters in three years (out of a maximum of twelve, since letters need only be repeated every three months), all of which had to justify inflation being above target.

The trade-off between a monetary policy strategy that uses an intermediate target and one that does not is then the sacrifice of efficiency in meeting the ultimate goal for credibility gains. A more volatile macroeconomic environment, and one where there is more ambiguity over what ultimate goals monetary policy should be striving to meet, may make the trade-off swing in favour of intermediate targets in the future, especially if other factors (quantitative easing, monetary/fiscal policy interactions) call into question the independence of central banks and increase the need to demonstrate

commitment to a strategy.

5 Concluding comment

The record of Monetary Policy under Labour is closely intertwined with the record of the independent MPC which it created. As the party that introduced the current arrangements, it seems fair to allow Labour to bask in any reflected glory. And the political consensus now lies in favour of the arrangements that Labour introduced in 1997. Creating this consensus is an achievement in and of itself.

But, the last three years have thrown up challenges that have yet to be resolved. The Inflation targeting framework as practiced in the UK and elsewhere relied in significant measure on two lines in the sand that have been washed away by recent events.[10] The first is that monetary and fiscal policy can be separated – something which is no longer the case in an era of unconventional policy. Until the Treasury gets on top of the fiscal deficit the interplay between fiscal and monetary policy will be crucial. The second is the separation of monetary policy and credit policy/financial market regulation. It is evident form the period leading to the crisis and afterwards that there is a need for a more joined up approach recognizing that the workings of the operation of financial markets in the creation of money and credit are essential for a proper understanding of monetary policy. It may be that we can hang on and hope that the tide will recede so that the lines in the sand can be redrawn. But more likely the waters will remain turbulent creating a need for a more fundamental rethink of some aspects of policy. But, whatever happens next, this will be building on a position of considerable strength in a set of arrangements which have evolved over nearly two decades.

[10]See Sargent (2010) on the importance of these distinctions in the history of macroeconomic policy.

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