

CHAPTER 9: Is There a New Consensus in Monetary Policy?

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1 Introduction: Monetary Policy in Historical Perspective*

Macroeconomics has been one of the more contentious branches of the dismal science over the past fifty years. And within that, the proper role and conduct of monetary policy has been a matter of great debate. Yet, just as there has been a degree of convergence in macroeconomic thought over the last decade with the development of the New Keynesian synthesis, so there has also been convergence in beliefs about the proper scope of monetary policy and the appropriate institutional framework for the conduct of that policy. So in the first part of this essay, I shall explain what that consensus consists of, and how we got there.

However, in economics a consensus rarely remains a consensus for long. Rather, there seems to be a sort of Goodhart's meta-law that dictates that as soon as a consensus has been arrived at, something will come along to blow that consensus apart. And while there has certainly been convergence in both the theory and practice of monetary policy, unresolved issues and controversies still remain. So in the final part of this essay, I shall discuss some of these remaining areas of contention. But let me begin by providing a thumbnail sketch of the evolution of monetary policy over the past half century, focusing in particular on the UK experience.

1.1 The Keynesian heyday

For the first part of the post-war period, monetary policy was assigned only a marginal role in the control of aggregate demand in the United Kingdom. In line with Keynesian precepts – though arguably Keynes himself would probably not have approved – fiscal policy was seen as the primary tool of macroeconomic stabilisation. Interest rates were not thought to be a particularly effective weapon in altering the level of aggregate demand and were to be set low to encourage investment, while credit controls were employed to restrain consumer borrowing. Monetary policy was assigned a somewhat more prominent role in the United States, in part reflecting the greater difficulty of enacting changes in fiscal policy swiftly, but even there the importance of monetary control in determining the rate of growth of nominal aggregate demand was not fully recognised until later.

Following Bill Phillips' (1958) pioneering work, this was also a period when policy makers on both sides of the Atlantic also believed that there was an exploitable inverse trade-off between unemployment and inflation. The Government could have lower unemployment, if it was prepared to tolerate higher inflation. And if excess demand pressures showed signs of spilling over into excessive inflation and a deteriorating balance of payments, then incomes – rather than monetary – policy was the chosen tool to keep those pressures in check. When they turned out to be unsuccessful, resort could be made to devaluation in order to restore competitiveness.

* The views expressed are those of the author and do not reflect those of either the Bank of England or the Monetary Policy Committee.

We might describe this combination of beliefs as the Old Consensus. Unfortunately, it was a consensus that turned out to be badly misguided.

1.2 The Great Inflation and the rise and fall of monetarism

The demise of the Bretton Woods system of fixed-but-adjustable exchange rates and the move to a floating exchange rate removed the balance of payments as a constraint, but in its place came an increased tendency towards higher inflation in the face of excess aggregate demand. The acceleration of inflation in 1974 in the developed countries in the wake of the first oil price shock, the failure of incomes policy to bottle up inflationary pressures and the accompanying rise in unemployment contradicted the assumption of a stable unemployment-inflation trade-off and suggested that something was seriously amiss with the conventional wisdom.

Around the same time, academic thinking also altered profoundly. Milton Friedman's (1968) presidential address to the American Economic Association had already pointed out that any apparent trade-off was unlikely to be a stable one and introduced the concept of the natural rate of unemployment into academic thinking. Subsequent work by Ned Phelps (1967) and Bob Lucas (1973) further developed the microeconomic foundations of the Phillips curve, reinforcing the idea that there was no long-run trade-off and that attempts to exploit any apparent short-run trade-off would before long result merely in higher inflation.

This combination of empirical failure and a new intellectual framework pointed to the need for a new approach to policy. With inflation now seen as ultimately a monetary, rather than real, phenomenon, the importance of controlling nominal, rather than real, aggregate demand moved to centre stage. The search for a suitable nominal anchor to peg down the growth of nominal aggregate demand led in the first instance to the adoption of targets for money supply growth¹ on the grounds that the velocity of circulation was fairly stable and predictable.

Monetary targets were first adopted in the United Kingdom by Chancellor Denis Healey in 1977, though they were not as central to the Government's macroeconomic strategy as they subsequently became under Mrs Thatcher. But monetary targets proved to be an unreliable guide to the conduct of monetary policy, on account of unpredictable movements in the velocity of circulation. In the early Eighties, £M3 , the chosen broad aggregate, overshot its target range, but sharply slowing narrow money growth and a large appreciation of sterling simultaneously suggested monetary tightness. Inflation fell back as intended (though at the price of a substantial fall in output), but the instability of velocity served to generate disenchantment with monetary targets.

As a result, the focus shifted onto the exchange rate as the nominal anchor, with Chancellor Nigel Lawson pursuing an informal peg against the Deutsch Mark for much of the latter part of the eighties. Sterling eventually entered the Exchange Rate Mechanism (ERM) in 1990, unfortunately at an elevated rate and at exactly the same time as the pressure of re-unification was pushing German interest rates upwards.

¹ For countries with floating exchange rates. Some countries, particularly on the continent of Europe, preferred to fix their currency against a country with a record of maintaining low inflation, namely Germany.

Eventually the tension between following a tight policy in order to maintain the exchange rate peg and the desire to limit a deepening domestic downturn by lowering interest rates became so great that policy ceased to be credible, resulting in a run on sterling and the suspension of UK membership of the ERM in the autumn of 1992.

In the United States, the Federal Reserve's experience of monetary targets of under Chairman Paul Volcker was similarly somewhat unsatisfactory. Although Volcker's reign was successful in ending the United States' stagflation crisis of the 1970s by restricting the growth of the money supply, with inflation falling sharply between 1981 and 1983, instability in the velocity of circulation, similar to those seen in the United Kingdom, meant that money growth failed to provide the automatic pilot that its proponents hoped. The experience in these, and other, countries was aptly summarised by the Bank of Canada Governor Gerry Bouey, who reputedly remarked that "we didn't abandon monetary aggregates, they abandoned us".

In some countries, however, the monetarist approach has proved rather more durable. Chief amongst these was the Bundesbank, though in practice their pursuit of monetary targets seems to have been rather more flexible than the rhetoric sometimes suggests (see e.g. Ben Bernanke and Ilian Mihov, 1997). That strand has survived in the monetary part of the ECB's two-pillar strategy.

Together the Seventies and Eighties represent a period of considerable intellectual turmoil, with sharp disagreements between rival schools of macroeconomists on the origins of inflation inertia and the costs of disinflation. To the followers of Lucas – the New Classicals – the inflation inertia in empirical Phillips curve was an optical illusion, with past inflation simply reflecting the way inflation expectations were formed and thus subject to change if the policy regime changed. According to this world view, disinflation would be relatively painless if the associated monetary policy were fully credible. By contrast, those of a more Keynesian persuasion pointed to rigidities in wage and price setting that meant even a credible disinflationary policy would have real effects. The theoretical and empirical debate raged in the journals and even into the newspapers.

A final point worth noting about monetary policy during this period is that it constituted the high-water mark of the "high priest" approach to central banking (at least in those countries where central banks were responsible for monetary policy decisions). Central bankers tended not to explain their actions, instead taking on the mystique of a select band of initiates who had privileged access to the tablets of wisdom, and sometimes taking apparent delight in actively surprising the markets. Thus, it was not until February 1994 that the Federal Reserve Open Market Committee even revealed that it had changed its target for its key official interest rate, the Federal Funds rate. As we shall see, the attitude of central banks today to the communication of information is rather more open.

2 The New Consensus

The New Consensus in monetary policy has resulted in part from a process of learning what works (and what doesn't) on the part of central banks, and in part from the convergence of thinking in academic macroeconomics. The latter is characterised by acceptance of the long-run neutrality of money and the sensitivity of expectations to

the policy regime (as emphasised by the New Classicals) coupled with a recognition that real and nominal rigidities mean that there is a short-run trade-off between activity and inflation (as emphasised by Keynesian thought). The resulting fusion is variously referred to as the New Neo-Classical Synthesis or the New Keynesian approach. Richard Clarida, Jordi Gali and Mark Gertler (1999) provide an excellent survey of monetary policy in such models, while Mike Woodford's (2003) seminal work provides a more comprehensive statement.

I do not propose to try to add to those excellent works, but in addition to this convergence in the intellectual framework, I think it is worth drawing out four particular features of the New Consensus that have significant practical implications for the behaviour of central banks. They are: the primacy of monetary policy for managing demand; the virtues of central bank independence; a focus on ends rather than means; and the importance of managing expectations.

2.1 Monetary policy as the primary tool of demand management

As in the monetarist heyday, monetary policy is still seen as the prime tool for managing nominal demand. Interest rates are a flexible tool that can be changed instantaneously, though the transmission lags to demand and thence inflation are certainly, in Friedman's famous phrase, "long and variable" (to which I would add also "rather uncertain").

Fiscal policy is, by contrast, seen as a less effective weapon. Increases in government spending take time to initiate. And temporary changes in income taxes are likely to be ineffective in stimulating or retarding demand, at least if consumers obey the life-cycle/permanent income hypothesis. Temporary variations in sales taxes or investment credits could be used as a countercyclical fiscal tool, as they potentially induce intertemporal substitution in spending, though these too are not regarded as a central part of the armoury. That is because all fiscal expansions, whether as result of higher spending or lower taxes tend to be politically hard to reverse. For that reason, the conventional wisdom has for some time been to set fiscal policy with an eye to the medium to long-term, ensuring that budget deficits are purely temporary phenomena reflecting unusual events e.g. cyclical downturns or wars, and matched by appropriate surpluses in the good times.

2.2 Central bank independence

Second, interest rate decisions are typically delegated to an independent central bank, rather than taken by the Government. In the UK case, operational independence was granted to the Bank of England in 1997, though it potentially exerted an indirect influence on interest rate decisions as a public commentator on interest rate decisions from the inception of inflation targeting in 1992.

There is a substantial academic literature on the virtues of such delegation, stemming from the work of Finn Kydland and Ed Prescott (1977) and Robert Barro and David Gordon (1983). That literature focuses on the incentives of a monetary policymaker with a short time horizon to exploit the short-run activity-inflation trade-off when the natural rate of output is inefficiently low. But rational agents will expect this

behaviour, so the resulting equilibrium has to have inflation already high enough to dissuade the policy maker from such opportunistic behaviour.

Such a model may represent a useful parable of the behaviour of governments though, as explained in Bean (1998), I think it is better to think of the need for incumbent governments to generate a buoyant economy in the run-up to elections as the key driver, rather than a wedge between the natural and efficient rates of output. But though the literature provides useful support for central bank independence, it did not provide the main impetus behind the decision to give the Bank of England operational independence. Rather, that was a response to the better comparative performance of countries with independent central banks, such as the United States and Germany, coupled with an appreciation that delegation of monetary policy would allow the Chancellor and the Treasury to focus on fiscal and structural issues.

While the trend has very much been in the direction of greater independence, it is worth noting that the extent of that independence, both in terms of institutional settings and the degree of latitude over the objective varies across countries. For instance, the independence of the Bank is circumscribed by the fact that the Treasury is the sole shareholder and in effect sets our budget, and that the Chancellor defines our operating target, namely 2% CPI inflation “at all times” (we have “instrument independence” but “goal dependence”). Some other central banks have greater autonomy in defining their objectives; that is the case of both the Federal Reserve and the European Central Bank, both of which have some latitude in interpreting their mandates as defined by the respective statutes (they have a degree of “goal independence”).

Moreover, as Willem Buiter (2006) stresses, no central bank can ever be totally independent of Government. The Government’s intertemporal budget constraint ensures that fiscal policy and monetary policy are necessarily tied together in a long-run sense. And there are some circumstances where the involvement of the finance ministry would be essential – for instance in a deflationary situation, when official interest rates are at their zero lower bound and recourse is being made to “unconventional” expansionary monetary operations in bonds and equities. Finally, and most fundamentally, central bank independence can only survive if it has the support of the country’s citizens. At the end of the day, central banks are the servants of the people, not the masters.

2.3 Focus on ends rather than means

A third aspect of the New Consensus is its focus on ends rather than means. Many of the controversies of the past – whether to pursue monetary targets or an exchange rate target, whether to target narrow money, broad money or nominal GDP, etc. – were all about finding a suitable intermediate target to act as a lodestar, rather than the ultimate objectives of monetary policy, namely low and stable inflation and high and stable growth. In truth, no such lodestar exists and discussions of which intermediate target to pursue often served to disconnect the public from an understanding of what policymakers were seeking to achieve.

Instead, the focus today tends to be more directly on policymakers’ objectives, as opposed to how they go about it. Moreover, as note above, there is widespread

agreement that there is no exploitable long-run trade-off between activity and inflation, even though one may be present in the short run. That has led to a primary focus of monetary policy on the maintenance of price stability, though a subsidiary goal of seeking high and stable growth (or something similar) is also contained in most central bank mandates. That is reflected in the number of central banks that have followed the example of the Reserve Bank of New Zealand and adopted a strategy of inflation targeting, 22 at the latest count, including the Bank of England.

A number of major central banks, including the Federal Reserve and the European Central Bank, would not describe themselves as inflation targeters. Nevertheless, in practice they behave quite like an inflation targeter would. In my view, the group of inflation-targeting central banks have a very large degree in common with the non-inflation targeters, while the differences are largely secondary and relate to the rhetoric of communication as much as to policy choices.

The focus on ends rather than means has a couple of consequences. First, as our understanding of the way economies work evolves, we can build that into our deliberations without needing to change the policy framework in the way that having an intermediate target might entail – it offers an inherent flexibility. Second, as I note below, expectations play a key role in our current vision of how the economy functions. A focus on ends – and inflation in particular – helps to anchor those expectations by offering a simple heuristic for private agents, who only need to understand what we are trying to achieve, not the means by which we seek to do so (see also Mervyn King, 2005).

2.4 Key role of expectations and credibility

The fourth aspect of the New Consensus is the importance placed on expectations and credibility. That is emphasised in both the Kydland-Prescott-Barro-Gordon inspired literature on the time inconsistency of monetary policy mentioned earlier, and the New Keynesian literature (see e.g. Clarida, Gali and Gertler, 1999). In the canonical New Keynesian model, the opportunities to change prices are infrequent, generating forward-looking behaviour; inflation today is a function of expected future inflation as well the pressure of demand (captured either by marginal costs or an output gap term). As a result, the expectations channel represents a crucial link in the monetary transmission mechanism. Indeed, Woodford has gone so far as to claim that not only do expectations matter, but that very little else does!

One feature of forward-looking behaviour is that expectations of future changes in policy can do a lot of the work, obviating the need for sharp movements in current official interest rates. Thus an adverse shock to demand will lead private agents to expect a reduction in current *and future* interest rates – provided the commitment to stabilise demand and inflation is understood – leading to a depreciation of the exchange rate and a rise in equity prices (compared to what would have been the case without a policy response). These asset price movements will automatically tend to stabilise the economy, attenuating the size of the policy change needed today. King (2005) refers to this as the “Maradona” theory of interest rates.

A well-understood (and believed) commitment to stabilise inflation enhances the effectiveness in the face of supply shocks as well demand shocks. When policy is

credible and inflation expectations are well anchored, then the chance of an adverse supply shock triggering a wage-price spiral is much less than when people believe that the central bank will accommodate the shock and allow inflation to rise.

The potential importance of this is illustrated by the response of financial markets to the recent increases in oil prices. The spot price of oil rose by around two-thirds between the beginning of 2004 and the autumn, with particularly sharp increases in June-July and September-October (represented by the shaded bars in Charts 1 and 2). There were a number of reasons for this increase, including rapid growth in demand associated with the global expansion, low stock levels in the United States, geopolitical concerns in the Middle East and interruptions to supply in a number of countries. The increase was almost certainly unanticipated as it was not remotely signalled in the futures price which had been pointing to a modest decline in the oil price to within OPEC's then \$22-28pb target range.

Given the experiences of the Seventies, one might have expected the increase in oil prices to lead market participants to expect an increase in inflation and for market interest rates to move higher in the expectation of monetary tightening by central banks. And neither the rise in oil prices nor the increase in interest rates could be expected to be good news for equity prices. But what happened? Inflation expectations implied from nominal and indexed bonds hardly moved (Chart 1) and market interest rates moved down rather than up (Chart 2). Moreover, during the September-October period equity prices actually strengthened.

Now there may be other explanations for this constellation of asset price movements, not least other shocks that might have occurred at the same time. But the natural interpretation is that with inflation under control and inflation expectations well-anchored, market participants believed that central banks would be able to pursue a more relaxed monetary policy in order to offset the adverse demand effects of the oil price increase without needing to worry about setting in train a wage-price spiral of the sort seen in the 1970s.

The central role played by expectations has also encouraged central banks to move away from the mysticism of the Seventies and Eighties towards greater transparency. As policymakers explain the reasoning behind their actions, so private agents gain a clearer understanding of how the central bank is likely to behave in the future as they respond to unfolding events – in other words, they get a better picture of the central bank's reaction function. That helps to ensure that the expectations channel of the transmission mechanism functions efficiently and predictably².

3 Controversies and puzzles

Although I think one can reasonably talk about a New Consensus in the making of monetary policy, that should not be taken to imply – to borrow from Francis Fukuyama – the “end of macroeconomics”. There are still plenty of areas where there

² A recent contribution by Stephen Morris and Hyun Shin (2002) suggests that there can be too much transparency as it may discourage market participants from forming an independent view and may lead to too much weight being placed on the central bank's forecast of events. While this is a theoretical possibility, I am not yet convinced that it provides a convincing case that central banks have gone too far in the direction of transparency.

is disagreement, as well as plenty of puzzles about how the economy functions and how monetary policymakers should seek to achieve their ends. So let me conclude by discussing two controversies and providing a list of puzzles on which I think more research is required.

3.1 Controversy 1: Is a formal inflation target too constraining?

As already noted, while a relatively large number of central banks have adopted a formal inflation target, it is by no means universal. One of the charges sometimes levied against having an inflation target is that it pays insufficient attention to economic objectives other than inflation. Are there grounds for thinking the objective is overly focussed on inflation? My own view is No. All inflation targeting central banks are, in the jargon, “flexible”, rather than “strict”, inflation targeters, in the sense that they would not seek to get inflation back to target as soon as possible, regardless of the consequences. Having an inflation target defines the rhetoric the central bank uses to explain its actions, but I do not think that it prevents the central bank from taking the “sensible” actions that a non-inflation targeter would take in the same circumstances.

For instance in the UK case, the Chancellor’s original letter to the Governor makes clear that, although the target for RPIX inflation was 2.5% “at all times”, we were not expected to achieve it continuously; the same point applies to the current target of 2% for CPI inflation. Inevitably from time to time there will be shocks that drive inflation away from target. Given the lags inherent in the transmission mechanism of monetary policy, it may be difficult to offset such shocks if they are temporary and will have faded by the time the effect of any change in interest rates is starting to be felt. And even if some shocks could be offset in principle, there may nevertheless be a good case for allowing temporary slippage relative to target in order to avoid undue volatility in activity; that is particularly the case with some sorts of supply shock. In essence, we have a degree of “constrained discretion” in deciding exactly how to deal with shocks and how quickly to plan to bring inflation back to target when it has moved away (see King, 1997).

It could still be argued that, by failing to specify the relative weight we are supposed to place on deviations of inflation from target and output from potential, the “contract” between the government and the MPC has been left incomplete. In order to overcome this, Lars Svensson (2003) has argued that, in the interests of transparency, the members of the MPC ought to reveal the relative weight that we place on deviations of inflation from target and output from potential. But although that might be of interest to academics and technicians, I am not sure that it would mean much to the public at large.

Moreover, I think that in practice it would make little difference. Empirical evidence suggests that the “Taylor frontier”, which traces out the minimum feasible inflation variance for a given output variance may be quite sharply curved. In that case a wide range of plausible loss functions lead to rather similar policy choices; see Bean (1998), though see also Brian Henry, Mathan Satchi and David Vines (2006), who raise some doubts about the robustness of the result.

3.2 Controversy 2: Should monetary policy take account of asset prices?

A topic that has received much attention recently, not only in central banking circles, but also in market and media commentary is the role that asset prices should play in the setting of monetary policy. This is given particular resonance by experience in the aftermath of the collapse of the Japanese and US asset price bubbles. One view is that the fall-out from an asset price boom-bust can be sufficiently nasty that it is better to seek to take pre-emptive action against the bubble during the upswing in order to limit the potential costs when the bubble collapses. Moreover, the very success of central banks in achieving the goal of low inflation is argued to have made such bubbles more likely to occur. This view has been particularly associated with the Bank for International Settlements and is exemplified by Andrew Crockett (2002):

“(I)n a monetary regime in which the central bank’s operational objective is expressed *exclusively* in terms of short-term inflation, there may be insufficient protection against the build up of financial imbalances that lies at the root of much of the financial instability we observe. This could be so if the focus on short-term inflation control meant that the authorities did not tighten monetary policy sufficiently pre-emptively to lean against excessive credit expansion and asset price increases.”

Other writers who have argued for an “activist” response to asset price booms include Claudio Borio and Philip Lowe (2002), Stephen Cecchetti, Hans Genberg and Sushil Wadhvani (2002) and Michael Bordo and Olivier Jeanne (2002). The European Central Bank have appealed to this sort of thinking as one justification for the role of a monetary pillar in their “two-pillar” strategy (see Otmar Issing, 2005).

An alternative view is that such an approach is either infeasible or inadvisable and that monetary policy should instead remain focused on achieving the macroeconomic goals of low inflation and stable growth, seeking to do no more than deal with the fall-out from the unwinding of an asset price bubble. Such a view is exemplified in the following comment by Alan Greenspan (2002), as well as in work of Bernanke and Gertler (2001):

“...nothing short of a sharp increase in short-term rates that engenders a significant economic retrenchment is sufficient to check a nascent bubble. The notion that a well-timed incremental tightening could have been calibrated to prevent the late 1990s bubble is almost surely an illusion. Instead, we...need to focus on policies to mitigate the fallout when it occurs and, hopefully, ease the transition to the next expansion.”

At the outset, it should be stressed that the issue is not really about asset price bubbles *per se*. If the only macroeconomic consequence of booms and busts in asset prices were via conventional wealth effects on aggregate demand, then they would constitute little more than a nuisance to monetary policy makers. Since the lags from changes in wealth to consumer spending seem to be at least as long as those from interest rates, policy makers would be able to offset the impact of asset price swings without much difficulty.

Rather, as stressed by Borio and Lowe and by Bordo and Jeanne, asset price bubbles tend to be associated with a broader set of symptoms, typically including high investment and a build-up of debt. The development of a bubble may initially be

prompted by a beneficial supply shock, but subsequently excessive optimism about future returns drives up asset values, prompting increased borrowing to finance further capital accumulation. Moreover, appreciating asset values raise the value of collateral facilitating the accumulation of debt. During the upswing, balance sheets look healthy as the appreciation in asset values offsets the build-up of debt. But a bursting of the bubble will lead to a sharp deterioration in borrowers' net worth and the possibility of a tightening in credit conditions as financial intermediaries react to those stretched balance sheets. Such a credit crunch is likely to impact on activity more quickly than a conventional wealth effect and, moreover, temporarily reduce the effectiveness of monetary policy. Neutralizing the macroeconomic consequences of such financial instability may thus be difficult to achieve.

A number of the contributions in this area, including several of those above, ask whether the incorporation of asset prices into a Taylor-style reaction function, incorporating (expected) inflation and the output gap, leads to better macroeconomic performance. An affirmative answer may appear to imply that to the traditional monetary policy objectives of low inflation and stable growth needs to be augmented with an asset price or financial stability objective. But such a conclusion would be unwarranted. Asset price bubbles are of concern precisely because of the financial instability and contraction in output that may result when they burst. A central bank seeking to stabilize inflation and output over a sufficiently long time horizon should therefore necessarily recognize the possible adverse long-term consequences of an asset price bubble in its policy deliberations. Additions to the formal mandates of central banks such as the Federal Reserve and the Bank of England are not required, though the rhetoric employed to explain policy may need to alter; see Bean (2003).

But though the argument that monetary policy makers should factor in the long-term implications for output and inflation of asset price boom-busts is persuasive in principle, there are a number of serious practical difficulties in implementation. First, the policymaker must judge whether an asset price increase is warranted by the fundamentals or whether it is instead based on misplaced expectations and furthermore poses a threat to future financial and macroeconomic stability. A mechanical response that treats all asset price movements alike, whatever their causes, is unlikely to be appropriate. Given that asset price boom-busts are apt to occur when there has also been an improvement in fundamentals, that is not likely to be a straightforward task, at least in the early stages of the upswing.

Second, once a bubble is large enough to be reliably identified, the presence of lags in the monetary transmission mechanism complicate the calibration of an appropriate policy. Raising official interest rates will be counterproductive if the bubble subsequently bursts, so that the economy is subject to the twin deflationary impulses of the asset price collapse and the effect of the policy tightening. Indeed, in the unlikely event that the policymaker knew that an asset price collapse was imminent, monetary relaxation, rather than tightening, would be called for. David Gruen, Michael Plumb and Andrew Stone (2003) show that the informational requirements necessary to render an activist policy effective are extreme once such lags are taken into account. At best there is likely to be only a narrow window during which action is desirable.

Third, a modest increase in interest rates may do little to restrain an asset price boom. But an increase large enough to materially affect the evolution of asset prices is likely to have a significant adverse impact on economic activity. So the policy maker would need to be confident that the short-term costs of such a strategy are outweighed by the uncertain long-term gains. Moreover, if the key concern is a build-up of debt, higher interest rates will exacerbate the problem if the increase in debt service outweighs the reduction in new borrowing. In any case, expectations of future returns are likely to be a key driver of asset prices, investment and borrowing, so expectations of future policy actions may be as relevant as current policy settings.

Despite the practical difficulties in devising and calibrating a suitable “leaning-against-the-wind” strategy, it seems reasonable to believe that this is likely to remain a contentious issue for some years to come.

3.3 Some outstanding puzzles

Let me conclude by listing a few particular economic issues on which I think greater understanding would be helpful for the conduct of monetary policy. The first relates to the role of financial markets and financial intermediaries, something that is rudimentary at best in standard macroeconomic models. In recent years, there has been a growing body of work that has aimed to plug this gap, in so doing introducing a “financial accelerator” into the transmission mechanism of monetary policy; Bernanke, Gertler and Simon Gilchrist (1999) provide a good survey of the literature. However, a better handle on the circumstances under which “credit crunches”, and similar phenomena associated with a gumming-up of financial markets, occur, would be desirable.

Second, there is ample empirical evidence to suggest that the speed of the pass-through from changes in exchange rates into consumer prices has fallen in recent years (see Jane Ihrig, Mario Marazzi and Alexander Rothenberg, 2006). Many macroeconomic analyses assume that the law of one price holds for tradeable goods and that for smallish countries, including the United Kingdom, exchange rate changes pass through immediately into domestic prices. The evidence suggests that the pass-through into import prices is fairly rapid, but the subsequent pass-through into consumer prices appears to be slow to non-existent, implying a compression of distributors’ margins, in the first instance at least. As the external channel through the exchange rate is a key part of the transmission mechanism a better understanding of what is going on is a major issue for future research.

Third, exactly how are expectations formed? I have already flagged the importance of expectations in both contemporary macroeconomic theorising and policymakers’ thinking. But in practice we actually know very little about how agents form their expectations. Rational expectations is the benchmark assumption in academic work, but we know that this is an “as if” assumption that abstracts from all the practical problems that private agents face in forming their expectations. Instead, they are likely to rely on relatively simple heuristics, particularly if they are unsophisticated types. But how do those beliefs form and evolve? The academic literature has started to take learning seriously, but there is a long way to go yet.

Finally, one of the most striking empirical features of recent history has been the apparent flattening of the Phillips curve as inflation has subsided. This is apparent in many developed economies, but is particularly evident in the United Kingdom (see Chart 3). In the Seventies, the plot is roughly vertical, reflecting the rapid ratcheting up of wage settlements in the wake of the oil price shocks, aggravated by the indexation clauses that were widely in force then. The Eighties look more like the traditional inverse short-run textbook relationship between unemployment and inflation, though the persistence of high unemployment after inflation was brought back down points to the importance of inherent persistence mechanisms that make the short-run natural rate of unemployment history-dependent. But what is going on in the Nineties?

One possible explanation runs as follows. The usual inverse short-run trade-off is alive and well, but the natural rate of unemployment has been falling as a result of past and continuing labour market reforms. Policymakers, seeking to stabilise inflation, have then managed to expand real demand at just the right rate so that actual unemployment has fallen in line with that declining natural rate. The problem is that this assumes an ability to fine-tune that is frankly unbelievable, especially once one recognises the data fog in which policy decisions are taken. If the short-run trade-off were still there, it surely would have revealed itself as control errors pushed inflation either above or below target.

The alternative explanation is that the short-run trade-off is indeed flatter now. That is predicted by some New Keynesian pricing models, which suggest that prices should be changed less frequently at low inflation rates. Alternatively, the stabilisation of inflation and greater counter-inflationary credibility in monetary policy may have anchored inflation expectations more successfully and ensured that more of an expansion in nominal demand is transmitted into higher activity and less into inflation than was the case in the Seventies. Moreover, the persistence mechanisms that helped to keep unemployment high in the Eighties after the original shocks had dissipated may now be operating in reverse. Finally, in the United Kingdom in recent years, endogenous inward migration may also have been important in limiting upward pressures on inflation in a tight labour market.

There is good news and bad news for policymakers if this is what is going on. The good news is that monetary policy becomes a more potent weapon for managing activity and upside control errors are less likely to lead to bouts of inflation that have subsequently to be painfully eradicated. The bad news – and central bankers are conditioned to spot the clouds even on a sunny day – is that it becomes harder to identify the economy's true level of potential supply. Getting a better understanding of this changing nexus between unemployment and inflation should be an important item on the future research agenda.

4 Concluding remarks

Approaches to monetary policy have suffered sharp swings over the past forty years, mirroring the wider debates between different macroeconomic schools. But, just as macroeconomics seems to have converged onto a common analytical framework, so there are also signs that a New Consensus has developed over the conduct of monetary policy. A central part of that consensus is the recognition that while there

may be a short-run trade-off between activity and inflation, no such relation holds in the long run. Aside from that core tenet, the consensus is marked by the following ingredients: the assignment of monetary rather than fiscal policy to the management of nominal demand; central bank independence; an increased focus on means rather than ends; and the central role played by the management of expectations through increased transparency.

But this consensus does not mean that everything has been resolved. In particular, the debate over how best to take on board asset price considerations is likely to run for a while yet. And even if there is a consensus about the general framework for the conduct of monetary policy, there remain many unsolved puzzles over the functioning of the economy. Central bankers may aspire to be boring, but the work of a central banker will remain anything but!

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Chart 1: 3-year Spot Inflation Rates

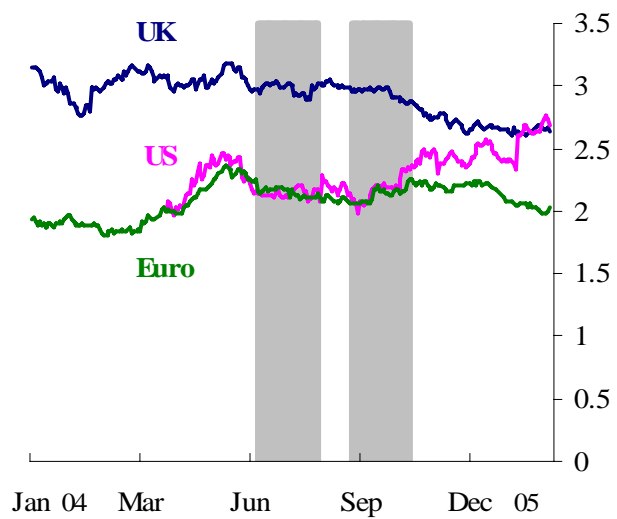


Chart 2: June 2005 3-month Forward Interest Rates

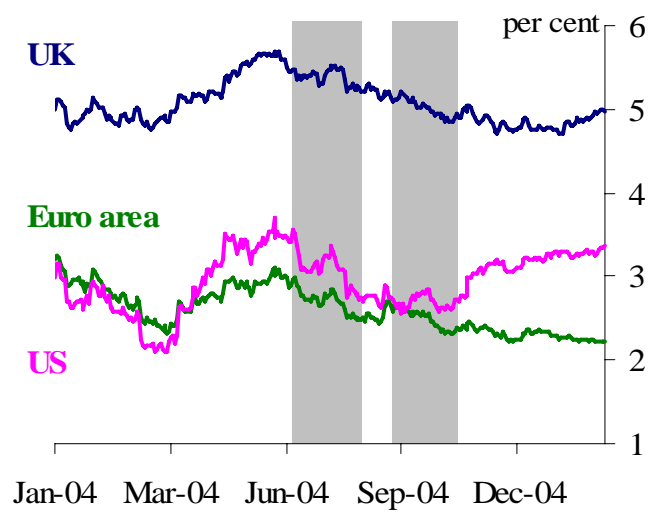


Chart 3: UK Phillips Curve

