BANK OF ENGLAND

Speech

Inflation targeting in practice: the UK experience

Speech given by

John Vickers, Executive Director and Chief Economist at the Bank of England

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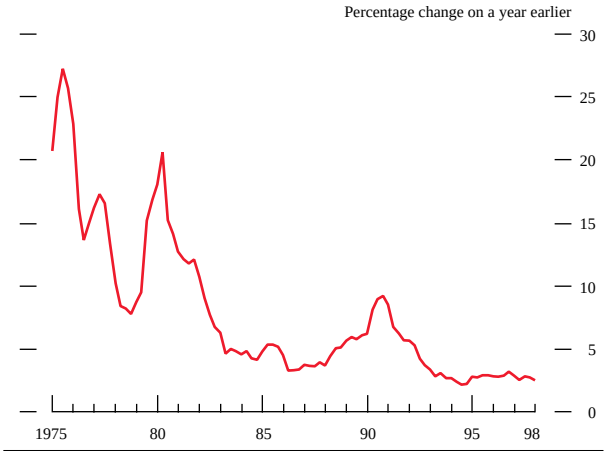
In this speech,[1] John Vickers, Executive Director and Chief Economist at the Bank of England, discusses theoretical and practical issues relating to inflation targeting as used in the United Kingdom during the past six years. After outlining the role of the Bank's Monetary Policy Committee, he considers the Committee's task from a theoretical perspective, before discussing the concept and measurement of domestically generated inflation.

Introduction

Six years ago this week, sterling left the exchange rate mechanism (ERM) of the European Monetary System, and dropped by 7% from DM 2.80 to DM 2.60. But since falling below DM 2.20 in l995, sterling has risen to levels higher than before its exit from the ERM. In an economy as open to international trade as the United Kingdom, one might have expected that such large swings in the price of foreign exchange would destabilise domestic price inflation. Not so. For every month since the start of 1993, inflation[2] has remained in a range of 2%–3½%. This is an uncharacteristic degree of UK price stability by recent historical standards (see Chart 1). Over the same period, annual GDP growth has averaged about 3%, well above trend, and the unemployment rate has fallen from 10% to 6.2%.[3]

Chart 1
RPIX inflation



For these six years, the United Kingdom's nominal anchor has been an explicit inflation target, and on 1 June this year, a new statutory framework for the implementation of price stability (and much else) came into force in the shape of the Bank of England Act 1998.[4] First, I shall briefly describe this framework, and how the operationally independent Monetary Policy Committee (MPC) works within it—how we make decisions, how we seek to explain them, and how we are held accountable for doing the job we have been given.

Next, though my task is to discuss inflation targeting from the practical perspective of UK experience, I shall take a detour and discuss a sort of converse question: how might UK practice appear from the perspective of the *theory* of inflation targeting? Then finally, and returning to the theme of inflation targeting in an open economy, I shall discuss the practical and topical problem of inflation control in the face of large exchange rate movements, and how the concept of domestically generated inflation may help in addressing it.[5]

The United Kingdom's new monetary framework

Almost immediately after coming into office, the new Government announced on 6 May 1997 that the Bank of England would henceforth have operational independence for the conduct of monetary policy. While the *objectives* of policy remain a matter for the Government to determine, responsibility for interest rate *decisions* moved to the Bank's new MPC. The MPC operated for a year on a *de facto* basis, and now has a statutory basis under the Bank of England Act. The Act also reformed the governance and finances of the Bank, and transferred responsibility for banking supervision to the new Financial Services Authority; the job of government debt management has moved to the Treasury.

The MPC has nine members—the Governor, the two Deputy Governors (David Clementi and Mervyn King), the Bank's Executive Directors for Monetary Operations (Ian Plenderleith) and Monetary Analysis (me), and four members appointed by the Chancellor of the Exchequer: Sir Alan Budd (formerly Chief Economic Adviser at the Treasury), Willem Buiter (Cambridge University), Charles Goodhart (London School of Economics), and DeAnne Julius (formerly Chief Economist at British Airways). Our monthly policy meetings span two days, and decisions are taken by a vote, with the Governor having a

(1) Given at the Conference on Implementation of Price Stability held in Frankfurt on 11–12 September 1998.
(2) As measured by the retail price index excluding mortgage interest payments (RPIX).
(3) On the Labour Force Survey measure.
(4) The Act is described in more detail in the May 1998 *Quarterly Bulletin*, pages 93–99.
(5) I am very grateful to Bank of England colleagues Bill Allen, David Barker, Willem Buiter, Spencer Dale, Andrew Haldane, Graham Kentfield, Mervyn King, Ben Martin, Paul Mizen, Jo Paisley and Chris Salmon for their helpful comments and suggestions on an earlier version. The views expressed are entirely my own, and are not necessarily those of other MPC members, or of the Bank more generally.

casting vote in the event of a tie. A representative from the Treasury attends.

The paramount statutory duty of the MPC is the maintenance of price stability. This is defined in terms of a target for the annual rate of retail price inflation excluding mortgage interest payments (RPIX). The Chancellor's letter of 3 June 1998 defining the MPC's remit says that 'the inflation target is 2½% at all times'. The remit recognises that exogenous shocks and disturbances may cause inflation on occasions to deviate from the target, and that 'attempts to keep inflation at the inflation target in these circumstances may cause undesirable volatility in output'. If the target is missed by more than 1 percentage point on either side, the Governor, as chairman of the MPC, must write an open letter to the Chancellor explaining why the target was missed and what action is being taken to rectify the situation. Subject to the paramount statutory duty of price stability, the MPC must support the Government's economic policy, including its objectives for growth and employment.

There are two main vehicles of transparency: the minutes of the monthly MPC meetings and the quarterly *Inflation Report*, the twenty third of which was published last month. The minutes give a frank but non-attributable account of the Committee's discussion, and individual votes are recorded.

The *Report*, which is prepared by Bank staff under the guidance of, and with the approval of, the MPC, offers a detailed account of recent economic developments, and gives projections for inflation and GDP growth up to a two-year horizon.

Charts 2 and 3 show the 'fan chart' projections from the August *Report*, assuming constant interest rates. The fan charts are explicit about the Committee's (best estimate of its) uncertainty about the future. The shading is rather as on a contour map: at each point in time, the darkest region contains the central projection or highest probability path (ie the mode) and covers 10% of the probability, while paths considered decreasingly likely are in the correspondingly lighter regions that fan out. The uncertainties around the central projection are not necessarily symmetric—eg there is some upward skew in the inflation fan chart—and so the mode, median and mean may well differ. More on this later.

The minutes and the *Reports* are also important for accountability to the public generally, and specifically to the Bank's Court of Directors, to the Government, and to the Treasury Committee of the House of Commons. MPC members regularly give evidence before the Treasury Committee, and in June this year there were (non-statutory) confirmation hearings. I am pleased to report that we all passed.

Chart 2
Inflation projection

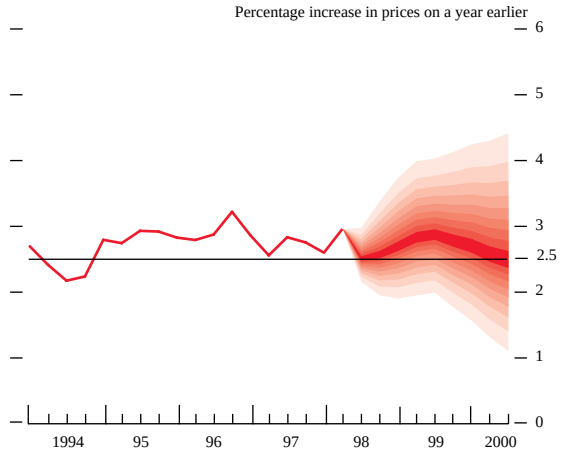
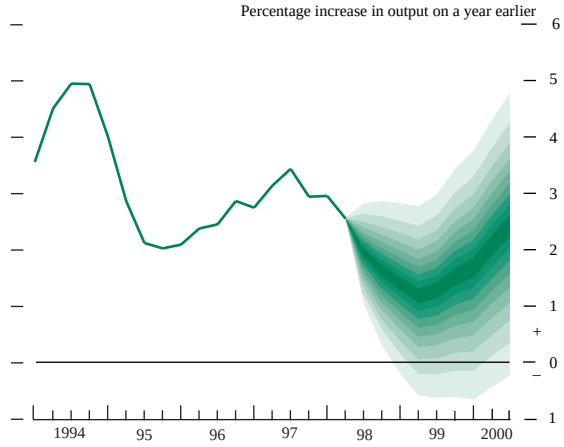


Chart 3
GDP projection



Source for Charts 2 and 3: August 1998 *Inflation Report*.

UK inflation targeting from a theoretical perspective

How might an academic surveying the United Kingdom's new monetary arrangements from the supposedly ivory towers describe the MPC in theoretical terms? I imagine that this academic would seek to define our objective in terms of a loss function,(1) and our behaviour in terms of an associated reaction function that relates policy decisions to economic data.(2)

The loss function

It should go without saying that the MPC's objectives are given by the Act and by the remit set by the Chancellor. There is a large literature on inflation bias,(3) but it is simply not applicable to the MPC. We have no desire to spring inflation surprises to try to bump output above its natural rate (wherever that may be). Quite apart from the obligation to fulfil our statutory duty, we have the strongest professional and reputational incentives, which in my

(1) Summed over time and appropriately discounted.
(2) This hypothetical academic might also delve into the theory of voting, but let me not get into that.
(3) Stemming from Kydland and Prescott (1977), and Barro and Gordon (1983).

opinion are incapable of being enhanced by financial incentives, to get as close as we can to the inflation target.

The academic knows this, but has two questions. First, is inflation the only thing that the MPC cares about—ie are we 'inflation nutters'? Clearly not: the remit from the Chancellor explicitly recognises that output volatility can be undesirable. Thus, as discussed by King (1997), the inflation target certainly does not ignore output. So how fast should the MPC try to return inflation to target following, say, an adverse supply shock? That depends on the cost of output volatility (around the natural rate of output) relative to the cost of inflation volatility (around the inflation target). The MPC's remit is silent on this parameter of the loss function, but optimal policy is arguably not too sensitive to its value within a reasonable range.(1)

Concern about output volatility is also one way of embracing the growth and employment objectives that are statutorily subsidiary to the main objective of price stability, which itself is of course a principal means of *promoting* growth and employment: the real world works best when inflation is under control.

The academic observer does not put any more ingredients into the loss function imputed to us, eg by including interest rate smoothing as an objective, though smooth-looking interest rate paths might result from optimal policy, for example because of the lag structure of the economy.(2) Neither are monetary aggregates put into the loss function, though we might watch them like hawks.

The academic's second question is interestingly abstract: what is the shape of the loss function? There is every indication (eg from the 1% letter-writing thresholds) that, at least as far as inflation is concerned, losses are symmetric: being 0.6% above the target is neither better nor worse than being 0.6% below it. But other things being equal, how much worse is it to miss the target by 1.2% rather than by 0.6%? Possible answers include:

(a) infinitely worse (graphophobia),
(b) four times as bad (quadratic loss function),
(c) twice as bad (linear loss function), and
(d) equally bad (perfectionism).(3)

As to case (a), I should first correct the popular misunderstanding that graphophobia is the fear of graphs. In fact, it is the fear of writing—specifically the fear of having to write a letter to the Chancellor explaining why the inflation target has been missed by more than 1%. But to suppose that MPC members are graphophobes would surely be to confuse their objective with a means of their accountability.

The theoretical literature mostly, and not unreasonably, assumes case (b). As is well known from the work of Svensson (1997) and others, with inflation as the only objective and with additive uncertainty, the optimal intermediate target in case (b) is simply the forecast *mean* of inflation at the policy horizon (eg two years ahead if policy takes two years to be effective). Under the same assumptions, case (c) makes the *median* of the inflation projection the optimal intermediate target, while the perfectionist in case (d) generally targets the *mode* in order to maximise the probability of perfection.

Thus the assumed shape of the loss function influences which measure of expected inflation is the intermediate target. If probability distributions for inflation are asymmetric, the differences between these measures can matter in practical terms, and things are complicated further when uncertainty is non-additive—see below. And it must be remembered that the appropriate expectations about future inflation are *conditional* upon the information available. This brings us to the question of the reaction function.

The reaction function

King (1997) looked forward to the day when monetary policy would be boring: the news would be in the data, not the authorities' reaction to the data. Perhaps in the long run we are all boring, but the MPC has not yet achieved that nirvana. Indeed, the 25 basis point rate rise on 4 June 1998 apparently surprised the markets so much that it caused the short-term interest rate futures contract to move by more than 25 basis points.(4)

How boring can we aspire to be? Regretfully, I suspect that there are fundamental limits. Consider the relatively simple world of so-called 'strict' inflation targeting(5) and additive uncertainty, where optimal policy targets the mean of future inflation. This expectation is conditional upon everything that the policy-maker knows and believes, including the policy-maker's own analysis, and not all that information is in the public domain. While transparency—*Inflation Reports*, MPC minutes, Treasury Committee hearings, and so on—increases what is in the public domain (desirably in my view), there is surely information relevant for policy-making that is simply incapable of being put in the public domain. In that case, and with the best will in the world, optimal monetary policy cannot be absolutely transparent, nor totally boring.

An analogy with contract theory might be useful. As Williamson (1985) and others have shown, in situations of any complexity, there is a tension between a complete contract (ie one that specifies what is to happen in every eventuality) and having a good contract (ie one that entails good decisions in every eventuality). If the same is true for

(1) See Bean (1997), and Haldane and Batini (1997).
(2) See Sack (1998), and Goodhart (1998).
(3) A functional form for the loss function that encompasses all these cases (and many others) is $L(x) = x^{\alpha}$, where L is the loss, x is the deviation from target, and α is zero in case (d), one in case (c), two in case (b), and approaching infinity in case (a). But the strictly graphophobic version of case (a) has $L(x) = 0$ for $x \leq 1$ and $L(x) = k > 0$ otherwise. With additive uncertainty, optimal behaviour for a strict graphophobe generally has equal probabilities of inflation being exactly 1½% and exactly 3½%.
(4) Some were surprised at this degree of surprise, in view of the facts that the recent data had clearly worsened the prospects for inflation, and that the most recently published minutes showed that three of the (then eight-person) Committee had favoured a rise in April.
(5) 'Strict' in the sense that inflation is the only argument in the loss function.

policy reaction functions, then residual discretion is sensible and so residual uncertainty is inevitable. (Moreover, MPC decisions aggregate the views of nine people, each of whom carries individual responsibility for his or her vote.)

For example, if model forecasts were used mechanically to generate interest rate decisions, then the policy reaction function could be put in the public domain by publishing (i) the model equations, and (ii) the data series fed into the model. The Bank is indeed planning to publish information about the models and data used in making the projections for inflation and growth, but for a number of good reasons this will not—indeed cannot—amount to publishing a policy reaction function.

First, as already stated, some information relevant for policy simply cannot be put into the public domain. One illustration of this point is the valuable information gathered by the Bank's twelve regional Agents, which cannot all be published in detail, not least because the Bank would not then be given much of the information to start with.

Second, models that are sufficiently manageable to understand for policy purposes use only a small subset of the information that is in the public domain. The rest should not be ignored, but would be ignored by mechanistic forecasting. An indication of the significance of this point is that while the Bank's core forecasting model has about 150 variables, the chart packs for the 'pre-MPC' briefing meetings (on the Fridays before the monthly policy meetings of the MPC) contain about 500 charts and tables on a thousand or so variables.

Third, it follows not that we need a bigger model, but that disciplined judgment is needed in applying the (continuously evolving) models that we have. A key part of that discipline comes from other models alongside the core forecasting model, which inform the inputs to the core model and/or the interpretation of outputs from it.

Fourth, the structure of the economy is not stationary: it is always evolving (eg consider the NAIRU). Mechanistic use of a forecasting model, whose equations necessarily reflect past relationships, would risk ignoring aspects of structural change. Again, there is a need for (disciplined) judgment—for example, in adjusting equation residuals in the light of the analysis of other models, in conjunction with the core forecasting model. The models are simply tools to assist the Committee in forming its view about the prospects for inflation and growth.

Thus, good forecasting generally entails use of off-model information (ie information outside the core model) and hence off-model models. Precisely how this is done seems to me to be literally indescribable in detail. While it may be perfectly sensible for the outside observer to model the MPC robotically, by ascribing to it a reaction function such as a Taylor-like rule,(1) and while long-run model simulations might otherwise make little sense, it therefore seems impossible and anyway undesirable for the MPC to attempt to specify or predict in formal terms its own future behaviour in terms of a reaction function.(2)

Indeed, the projections in the fan charts shown earlier are based on a simple assumption of constant interest rates up to the two-year horizon. Of course, this is not a prediction that rates will be constant for two years, even over the average of possible eventualities. It is just a working assumption for forecasting purposes.(3) Given that the MPC cannot sensibly postulate its own future policy reaction function, I am not sure what practicable alternatives there are, aside from the other fan charts shown in the *Inflation Report*, based on the time path of interest rates implied by the markets.

Mean versus mode

The hypothetical academic observer has one more question. The *Inflation Report* fan charts might give some the impression that the aspect of the probability distribution for inflation most relevant for policy is the central projection, or mode. It seems unlikely that the MPC have perfectionist objectives (see above), so why are they not targeting the mean, as most of the academic literature seems to recommend as the optimal policy? Given the skewed distributions for inflation published in recent *Reports*, this is by no means only an academic question.

One response might be to say that the question confuses presentation with substance. Fan charts are drawn, naturally enough, like contour maps, so the mode has *visual* prominence, but it does not follow that the mode determines policy. The distribution as a whole, and other moments of it, are taken fully into account. Though correct, this response perhaps raises further questions. For example, in the theoretical linear economy with additive shocks and quadratic objectives, presentation might be better focused on the mean rather than the mode, and the fan charts might even be drawn in a different way.(4)

A second response notes that the central projection is conditional on assumptions about exogenous variables, which may have asymmetric probability distributions. Suppose, to take a hypothetical example, that the most likely path for sterling (which of course is not entirely exogenous) is one of broad constancy, but that there is thought to be a chance of a substantial fall. If policy could respond to such a fall in time to keep expected inflation on target, then targeting the mean of inflation conditional on the assumed most likely case of broad constancy is consistent with the unconditional mean being above the target (on the working assumption, discussed above, of unconditional policy).

(1) Such a rule of course requires specification of the output gap, which is arguably the greatest unknowable of all. And as will be discussed further below, Svensson (1998) shows that optimal policy reaction functions under open-economy inflation targeting are not necessarily Taylor-like.
(2) Of course, the MPC says a great deal—in minutes, *Inflation Reports*, and so on—about which factors it sees as important for future policy, and why.
(3) It should be pointed out that the variance of the distributions depicted in the fan charts is based on empirical estimates for a period when policy was of course reacting conditionally to unfolding events. If policy really was fixed unconditionally, the variance would be greater than shown.
(4) For example, as suggested by Wallis (1998).

In this example, then, the mean of inflation could be on target, whether or not there is a fall in sterling. But it would be above target if sterling fell sharply and if policy ignored the fall. If, rather than being based on unchanged rates, the projection incorporated a policy reaction function, then mean inflation would be on target in both the contingencies in the example. But for the reasons given above, it is hard to see how the MPC—as distinct from an outside observer—can sensibly postulate a reaction function for itself.

And third, it must be remembered that, even with 'strict' inflation targeting and a quadratic loss function, the (conditional) mean of inflation is not necessarily the optimal intermediate target, unless uncertainty is additive. In the simplest one-shot control problem, with a quadratic loss function, the aim is to minimise the squared mean deviation of inflation from target plus the variance of inflation. Unlike the case of additive uncertainty, suppose that the variance of inflation is influenced by policy. Then the mean of inflation should be above/below target as the variance of inflation increases/decreases with tighter policy. This is the principle of Brainard uncertainty.(1)

As a stylised fact, the level and variance of inflation appear positively correlated. But it would be wrong to jump to the conclusion, even in the sort of example at hand, that the mean of inflation is optimally below target. The (apparently open) question is not whether the mean and variance of inflation are positively correlated in general, but whether they move in the same or opposite directions as policy varies, holding other factors constant.

Questions of this sort, posed in more realistic settings and possibly with other loss functions than in the simple example above, are interesting and potentially important. Brainard uncertainty is the subject of continuing research at the Bank of England, and a central theme of the forthcoming Keynes lecture by Goodhart (1998).

Domestically generated inflation

Let me turn finally from an academic perspective on the MPC to a practical problem that it has been facing: how great is the *domestic* inflationary pressure in the economy, and what are the immediate prospects for *imported* inflation?

The UK inflation target is specified in terms of retail price inflation (excluding mortgage interest payments). Overall inflation is a weighted average of domestic inflation and imported inflation. Imported inflation—ie inflation of the domestic currency price of imported goods and services—is strongly influenced by real exchange rate movements. Given the large real appreciation of sterling (and falls in world commodity prices) since mid 1996, the imported component of UK inflation has been negative in the recent past. But overall inflation has not fallen below target. Therefore, domestically generated inflation (DGI)—whatever that may be—must have been significantly above the target level. A central question for UK monetary policy has been whether domestically generated inflation can be brought down in time for overall inflation to stay on target, once the temporary restraining influence of external factors wears off.

But what exactly is DGI? How can it be measured? How does it relate to more familiar measures such as the GDP deflator? What economic content does DGI have for policy purposes? In briefly addressing these questions, I shall draw on the continuing work on DGI at the Bank of England by David Barker and Willem Buiter (1998), which contains a much fuller and more rigorous analysis.

In essence, DGI is the inflation rate that would prevail if there were no external shocks to the economy, such as large movements in the real exchange rate.(2) External shocks have direct effects (eg lower sterling prices of imported goods) and indirect effects (eg via lower demand for UK exports). It is not practical to answer the full hypothetical question: what would UK inflation have been if sterling had not appreciated? But one can attempt to obtain measures of DGI by removing the direct effects of exchange rate movements.

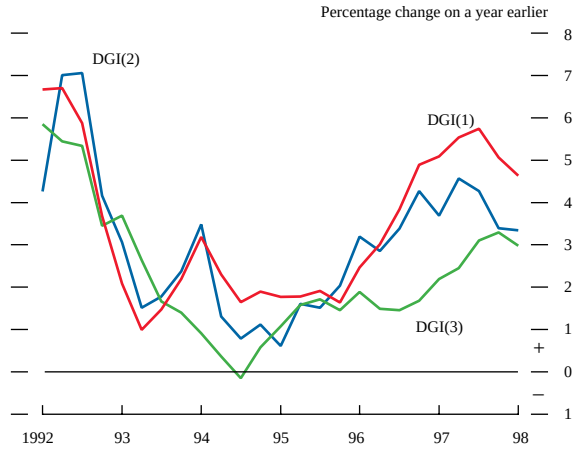
DGI differs from RPIX inflation primarily because import prices affect RPIX. Thus, imported French wine is a key ingredient of the UK retail product 'French-wine-in-UK-shops', and imported automotive components are often integral to 'cars-in-UK-showrooms'. This suggests RPIX excluding import prices as one measure of DGI. Input-output tables suggest that the (direct and indirect) import share of the RPIX basket is about 20%. This, together with the import price deflator from the National Accounts, allows calculation of the DGI(1) measure (coloured red) shown in Chart 4.

DGI differs from the GDP deflator primarily because the latter is the deflator for domestic value added overall—not just for domestic consumption.(3) This suggests that a second measure of DGI could be obtained by excluding the influence of export prices from the GDP deflator. (Care is needed here to take account of the import component of UK exports.) The resulting measure is shown as DGI(2) (coloured blue) in Chart 4.

A third measure can be obtained from unit labour costs. The rate of unit labour cost inflation measures DGI imperfectly, because (i) it may differ between the export sector and the sector producing for domestic consumption, and (ii) DGI should include unit profit growth in the domestic sector as well as unit labour cost inflation. A broad-brush argument suggests that (i) and (ii) may tend to offset each other. For example, exchange rate appreciation

(1) See Brainard (1967).
(2) DGI can be defined more specifically as the rate of inflation of the deflator for domestic value-added in production for domestic consumption.
(3) Another difference is that, unlike RPIX, the GDP deflator at factor cost excludes indirect taxes.

Chart 4
Measures of domestically generated inflation (DGI)



DGI(1): RPIX excluding import prices; DGI(2): GDP deflator excluding export prices; DGI(3): Unit labour cost inflation.

might (i) cause overall unit labour cost inflation to exceed domestic unit labour cost inflation, as labour productivity temporarily declines in the depressed export sector, and (ii) temporarily boost domestic profit margins, before lower import costs are fully passed through to consumers. There is a further question of whether overall unit labour cost inflation should be calculated on the basis of trend or actual measured productivity. Chart 4 shows unit labour cost inflation adjusted for trend productivity as DGI(3) (coloured green).

How have these measures of DGI evolved in the period since sterling left the ERM six years ago? As one would hope, they all fell substantially below RPIX inflation, before rising significantly above it following the sharp appreciation of sterling that began two years ago. The three DGI measures are currently in a range from about 3% to 4½%. As a matter of arithmetic, DGI will have to fall if the inflation target is to be met, once the restraining influences of external factors wear off.(1) So what?

The answer depends on how much inertia there is in DGI, and on the lags between monetary policy and DGI. Let me pursue these points by reference to Svensson's (1998) model of inflation targeting in an open economy.(2) In the aggregate supply equation (Phillips curve) of that model, DGI (so to speak) depends *inter alia* on lagged DGI, previous expectations of DGI, and output gap terms. Svensson does not attempt to calibrate or estimate his model, but the parameter on lagged DGI that he selects implies a significant degree of inertia in DGI.

The overall retail price index can jump discontinuously in the model, because exchange rate movements are assumed to pass through fully and immediately to domestic prices via import prices. The exchange rate, being determined by forward-looking expectations, reacts instantly to monetary policy. So there is no lag between policy and retail price inflation via the direct exchange rate channel. Of course, policy also affects the domestic and net trade components of aggregate demand, with a one-period lag, and aggregate demand affects domestic inflation, with a lag of a further period. So the model has a two-period lag between monetary policy and DGI.

The optimal reaction functions that Svensson (1998) obtains for open-economy inflation targeting are not like Taylor rules, and are sometimes counter-intuitive. For example, take the case of strict inflation targeting, and suppose that a recent shock means that DGI is expected to be above target next period. Sophisticated monetary policy exploits the powerful direct exchange rate channel to keep expected overall inflation on target, by engineering a rising real exchange rate path. By uncovered interest parity, this requires a policy of initially low, not high, interest rates.

Svensson is the first to point out limitations of the model, and corresponding directions for future work. Let me underline one of them—the timing, and indeed extent, of pass-through of exchange rate movements to retail prices. In recent UK experience, this is by no means instantaneous. First, it appears that foreign suppliers have widened their margins on exports to the United Kingdom as sterling has appreciated.(3) Second, it could be that domestic margins have widened on products with substantial import content.

Such behaviour is not surprising in theory. Contractual lags, the nature of oligopolistic interaction, and expectations that exchange rate movements may be temporary, are just a few of the reasons why margin adjustment might take time, or even remain incomplete. But theory has little to say about the likely lag structure. The challenges facing empirical work on this topic are also great, not least because of the difficulty of disentangling other (eg cyclical) influences on margins.

As for the theory of open-economy inflation targeting, a good question seems to be the robustness of optimal policy rules to uncertainty about the timing of exchange rate pass-through.

Conclusion

The United Kingdom has almost six years' experience of open-economy inflation targeting. During that time, inflation has been broadly stable, despite large movements in the sterling exchange rate, and hence in the substantial component of inflation that is imported.

The job of inflation targeting now rests with the operationally independent MPC of the Bank of England. Having outlined the way the MPC operates, I discussed

(1) This point does not depend on the accuracy of the three measures of the DGI. It follows simply from the fact that overall inflation has been above target, while imported inflation has been well below it.
(2) Another model of open-economy inflation targeting is given by Ball (1998).
(3) See Chart 4.2 on page 34 of the August 1998 *Inflation Report*.

what loss function, reaction function, and intermediate target an academic observer might ascribe to the MPC. One theme of that discussion was that it is inevitable that there will be residual uncertainty about monetary policy decisions, because the policy reaction function (so to say) in an ever-changing economic environment is incapable of being fully expressed. Therefore, monetary policy will never be completely boring.

I went on to discuss the concept and measurement of domestically generated inflation, which seems valuable for the analysis of open-economy inflation targeting. Among the issues calling for further research—both theoretically and empirically—are the apparently long and variable lags between exchange rate movements and pass-through to retail price inflation.

There is a story about the great English cricketer Geoffrey Boycott—a batsman never suspected of inflationary tendencies. A boy watching him go in to bat once shouted: 'Good luck Geoff!'. Whereupon Boycott allegedly retorted: 'It's not luck—it's skill'. Given the uncertainties facing open-economy inflation targeting, I am not sure that I would give quite such a categorical reply to well-wishers of the MPC—except, just possibly, with the benefit of hindsight six years from now.

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