

# Introduction

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Inflation targeting is now a well established framework for the conduct of monetary policy, having been in place for a decade or more in a number of countries, including Australia. In recent years the number of inflation-targeting countries has continued to grow. Australia's experience, like that of other countries, has been that the period of inflation targeting has delivered favourable economic outcomes. Australia's average inflation rate over the targeting period has been around 2½ per cent, consistent with the Reserve Bank's target of 2–3 per cent, on average, over the medium term. Furthermore, this has been associated with both stronger and less variable economic growth than in earlier times.

At present, around 20 central banks, in both industrialised and emerging market economies, have adopted inflation-targeting regimes. These regimes have evolved over time across a number of dimensions, including their degree of flexibility and their approaches to communication. Some early adopters have become more flexible, allowing greater scope for inflation to vary around the target and for broader macroeconomic goals to be taken into account. Inflation targeters have also become more transparent, increasing the scope of their communication and delivering it in more varied forms. But there remain important differences among countries with respect to both the operation and the rhetoric of inflation targeting. With a decade or more of experience now behind us, it is feasible to examine how the alternative approaches have fared and to consider how inflation-targeting regimes might evolve from here. In addition, it is significant that, while none of the central banks of the world's three largest economies have adopted inflation targeting at this stage, its possible implementation has been the subject of considerable debate. The Japanese experience is of particular interest, given that inflation targeting has been proposed to help the economy shift from deflation to inflation.

With this background in mind, the Bank considered it opportune to devote its 2004 annual conference to an examination of the future of inflation targeting. The conference papers examine the evolution of inflation-targeting regimes, issues related to monetary policy communication and transparency, and the measurement and modelling of inflation. One paper studies the case for adopting inflation targeting in Japan. Building on these papers, the conference discussions focused on how inflation targeting might need to adapt to possible challenges in the future. This introduction provides a broad overview of the themes to emerge from the conference.

## The Evolution of Inflation Targeting

Ken Kuttner opened the conference with an examination of the evolution of inflation targeting, which he describes as having entered its adolescent phase. His paper defines inflation targeting as a public commitment to a numerical inflation objective, combined with a significant degree of monetary policy transparency

and a mechanism for central bank accountability. Kuttner contends that among the 21 inflation targeters that he identifies, differences in the specific approaches to targeting are of second-order importance. In other words, what matters more is the existence of an inflation target. Critics argue that the observed improvements in performance following the adoption of inflation targeting can be fully explained by other factors. Kuttner, however, suggests that the empirical evidence for this view is unconvincing, and an important finding is that shocks to inflation are less persistent among inflation targeters than among non-targeters. This is consistent with inflation expectations being more firmly anchored under an inflation-targeting regime. In contrast to the view of some economists that inflation targeting leads to a loss of monetary policy flexibility, Kuttner presents evidence demonstrating that the actions of a number of inflation targeters are more flexible than is often indicated by their rhetoric.

## **Monetary Policy Communication and Transparency**

An important facet of the evolution of inflation-targeting regimes has been the substantial increase in monetary policy communication and transparency. This has been driven, at least in part, by the desire to enhance the credibility of inflation-targeting regimes – thereby helping to better anchor inflation expectations. Related to this, central banks have also needed to become more accountable in light of their increased level of independence.

There are two aspects of communication and transparency worth distinguishing. First, there is the substance of the information provided, which can include things such as the central bank's objectives, its views on economic developments and prospects, and its ultimate policy strategy. The second aspect is the means of providing this information, which can include monetary policy statements, the appearance of central bank officials before parliament, and/or the release of minutes from policy deliberations. It also includes, for example, the way that central banks explain the derivation of their forecasts. These two aspects of communication and transparency are examined in three related papers.

Rick Mishkin's paper focuses primarily on the substance of communication. He concludes that transparency in general helps to enhance the effectiveness of monetary policy, but that it could go 'too far'. Some economists have suggested that central banks should increase transparency by, for example, communicating a precise formulation of their objective function. Mishkin argues that this would detract from the effectiveness of monetary policy: it is not feasible for a policy committee to agree on, or commit itself to, a specific formulation of the objective function, and to attempt to do so would mask the true complexity of the policy process. If the central bank chooses to publish such a formulation and to stand by it, then policy could end up being less flexible than is optimal. Alternatively, flexibility could be retained, but this would occasionally require modifying the published objective function in response to new risks, structural change in the economy or changes in the make-up of the policy-making committee. This would also be undesirable because the appearance of inconsistency would be likely to reduce central bank

credibility. While Mishkin argues against increasing transparency across a number of dimensions, he suggests that central banks would be well served by more openly discussing (at least in broad terms) how they would respond to shocks that cause substantial output fluctuations.

The paper by Malcolm Edey and Andrew Stone considers both aspects of transparency, namely the substance of the information provided, and the means of its provision. In terms of the substance of communication, they acknowledge that inflation forecasts are a critical element of communication for inflation targeters, although they argue that an excessive focus on the inflation forecast could be misleading or may unnecessarily impede policy-makers' flexibility. With reference to recent Australian experience, Edey and Stone suggest that in addition to the level of inflation, it is necessary for policy-makers to consider the trajectory of inflation at the end of the forecast period to determine the appropriate stance of policy. They also note that the policy framework provides scope for a range of broader macroeconomic factors to be brought into consideration, even if they are not readily able to be incorporated in the inflation forecast.

When considering the means of communication, Edey and Stone argue that the widespread reduction in the volatility of interest rates across a number of countries, and small differences in volatility between countries, implies that attempts to identify the effect of remaining variations in communication strategies are likely to be inconclusive. In their discussion, they raise a recurring theme of the conference: the choice between presenting forecasts based on an assumption of unchanged monetary policy, or basing forecasts on a projected path for the optimal policy interest rate. In contrast to some other participants, they stress that these are different, but logically consistent, approaches to the same problem. Like Mishkin, they agree that there are a number of practical problems with an approach based on an endogenous interest rate path. Mishkin stresses the difficulty of the monetary policy committee agreeing on a precise projection for the path of interest rates. Edey and Stone emphasise that an endogenous interest rate assumption is, in one important respect, not transparent, because the process of arriving at such forecasts is more difficult for the non-specialist to understand.

Ellis Connolly and Marion Kohler examine whether the means of communication matters to financial markets by estimating how monetary policy communication affects financial market expectations of the path of interest rates. More specifically, they estimate the impact of different forms of central bank communication on daily changes in interest rate futures in Australia, Canada, the euro area, New Zealand, the United Kingdom and the United States; their approach also controls for the impact of domestic and foreign macroeconomic news, and monetary policy surprises themselves. As the authors note, if a central bank operates a completely transparent (and rigid) monetary policy rule, their communication is redundant because financial markets can anticipate changes in policy solely from macroeconomic news. However, discretion is a necessary feature of policy since, with uncertainty and structural change, it is not possible to specify exactly how a central bank should respond to all contingencies. This creates a role for regular central bank communication to help financial markets filter macroeconomic news. Their results show, first,

that communication matters, and second, that the forms of communication with the greatest effect on expectations are commentary accompanying rate decisions, monetary policy (or inflation) reports and parliamentary hearings. They find some differences in the impact of specific forms of communication across the economies they examine. However, as the authors note, this does not imply that some central banks convey more information than others, but rather that central banks use different channels to convey the same information. Connolly and Kohler conclude that the impacts of the Reserve Bank of Australia's communication practices on financial markets are in line with other central banks, and that they significantly influence and inform expectations of future monetary policy.

## **Measuring and Modelling Inflation**

The measurement and modelling of inflation are important practical considerations in the operation of an inflation-targeting regime. Robert Hill's paper focuses on issues involved with inflation measurement and describes a number of developments that have the potential to affect typical measures of consumer price inflation. He reviews alternative conceptual approaches to the measurement of inflation, including whether the index should be calculated on a cost of goods or cost of living basis, and other issues such as how frequently the price index should be computed or its weights updated. Another important question is whether certain volatile items should be excluded from the price index targeted. Such issues are likely to assume greater importance as the increased availability of scanner price data could have dramatic effects on the construction of price indices, with more frequent computation of expenditure weights at lower levels of aggregation. A potential consequence of this is greater volatility of the price index. Also, Hill notes that the potential for enhancements to, and wider application of, methods to account for quality improvements could lead to a reduction in the (positive) measurement bias inherent in standard consumer price indices.

The paper by Alex Heath, Ivan Roberts and Tim Bulman focuses on two issues fundamental to understanding the behaviour and interpretation of inflation. The first issue considered is the measurement of underlying inflation. Reliable measures of underlying inflation are important because headline inflation may be affected by significant relative price movements which policy-makers may wish to discount if they are considered temporary. For Australia, the authors find a number of measures of underlying inflation are useful in the context of inflation targeting, although the additional information they provide has declined since the onset of sustained low inflation from the early 1990s. The second issue the paper addresses is the pass-through relationship from exchange rates to consumer prices, which is relevant for obtaining good forecasts of inflation in an open economy subject to large exchange rate movements. The authors find that the pass-through of import price movements to consumer price inflation in Australia has slowed, and they suggest that inflation now responds more slowly to shocks, and is consequently more stable, than was the case prior to the adoption of inflation targeting.

## Using Inflation Targeting to Move from Deflation to Inflation

To date, inflation targeting has been introduced as a strategy to help maintain low inflation or to help facilitate a shift to a lower rate of inflation. Takatoshi Ito contends that inflation targeting could also have been used to help the Japanese economy shift from a state of deflation to one of inflation. His paper examines the inflation targeting debate within the Bank of Japan (BoJ) through a close reading of the minutes of its policy meetings. Proponents of inflation targeting argue that setting a target would impose greater accountability on the BoJ, provide an avenue for more effective communication with the financial markets and, most importantly, influence inflation expectations and so help to break the deflationary cycle. The opposing argument is that with the policy interest rate in Japan already at zero, the BoJ lacks an instrument to provide further stimulus to the economy to drive inflation higher. Without an instrument to ensure the target is attained, any announcement of an inflation target would therefore lack credibility. Ito rebuts this argument on a number of grounds and argues in favour of the adoption of an inflation target by the BoJ.

## Conclusions

A number of key messages emerge from the conference and were summarised by the speakers during the wrap-up session. Foremost is the successful track record of inflation-targeting regimes. Claudio Borio summed this up by saying that inflation targeting passes the ‘no regrets’ test: no country that has adopted inflation targeting regrets having done so. It is true that inflation targeting has not yet faced the types of large adverse supply shocks that befell earlier policy regimes. However, there was general agreement among participants that by providing a solid anchor for expectations, inflation targeting would be as well, if not better, suited to address such disturbances as other regimes.

The potential for such events reinforces the desirability of a flexible approach to inflation targeting – as has increasingly become the norm across inflation targeters. Now that inflation expectations are low, and credibility has been well established, it is certainly more feasible for inflation targeters to lengthen the policy horizon, and to integrate broader macroeconomic concerns into the targeting framework. A recurring theme of the conference discussions was that inflation-targeting regimes have evolved in a direction that gives greater scope for this kind of flexibility, often more so than their rhetoric implies.

Another consequence of low and stable inflation is that it appears to have become harder to estimate models of inflation. This implies some difficulties for central banks that rely too heavily on model-based forecasts of inflation, particularly in light of the earlier conclusion that inflation targeters should consider lengthening their policy horizons. This raises a number of interesting challenges for future research, particularly in the areas of empirical modelling, alternative approaches to forecasting and how longer-run risks can be better incorporated into the inflation-targeting framework and explained to the public.