Introduction

Inflation targeting has been successfully adopted, since the early 1990s, by the central banks of more than twenty countries both developed and developing. New Zealand (1990) was the first, followed by Canada (1991), UK (1992) Australia, Sweden, Finland and Norway (1993), Spain (1995) and then by Brazil, Korea, South Africa, Thailand, Mexico, Russia, Czech Republic, Hungary, Poland and lately Japan.

A series of very important monetary policy research economists, including Lars Svensson, Mervyn King, Glenn Rudebusch, Juergen Von Hagen, Guy Debelle, Leonardo Leiderman, Ben Bernanke, Frederic Mishkin, Stephen Cecchetti and Michael Woodford have been forging the theoretical case for the introduction of inflation targeting by these central banks. Nevertheless, Mervyn King (2005) recognises that today “monetary practice is ahead of monetary theory”.

Moreover, it is a fact that most of those central banks which adopted inflation targeting did it because they recognised the failure of their previous monetary policy frameworks, based on the choice of monetary aggregates and the exchange rate as intermediate targets. Thus, the collapse of the fixed exchange rate regime or the ERM crisis in 1992-93 in some cases (UK; Sweden, Finland, Spain) or the failure of discretionary monetary policy in others (New Zealand, Canada and Australia) made it compelling to choose inflation targeting. In some cases it was also the result of the newly gained legal independence by the central bank and of the need to gain at least “operational credibility”.

Their choice of an inflation target has also generated a large debate between those that have chosen the headline CPI and those that have preferred the core or underlying CPI. The problem of the headline CPI is that it is affected by a number of shocks that cannot be controlled by monetary policy and do not reflect the underlying inflationary pressures that should be what the
central bank be worried about. I refer to changes in indirect taxes, commodity supply shocks etc. The problem with underlying inflation is that usually it does not have similar desirable features of statistical simplicity and general acceptability as the headline CPI and, therefore, it tends to have a smaller impact on inflation expectations. The obvious solution to this issue is either to choose headline inflation but including an escape clause or some caveats to turn to core inflation or to stick to underlying inflation that it is the price index that a central bank is best able to control.

Another important issue among those central banks has been the choice of the numerical inflation target or the band. Targets are either range targets or point targets that are only supposed to hold on average and, in either case, this means that the inflation rate is not going to be kept constant at some preset level. Some limited volatility of the inflation rate needs to be tolerated, not only because some uncontrollable shocks are likely to affect inflation but also because monetary policy technology is not accurate enough to forecast or to bring about, finely calibrated changes in the inflation rate.

These are the reasons why, where the target is precisely defined, the usual band width is 2 or 3 percentage points. The width of course depends on the credibility of the central bank, the less credibility the narrower must be the range or band. No central bank has chosen a price level target, because although it reduces the uncertainty about the future price level, it is more restrictive since it implies that high inflation in one period must be compensated by low inflation in the next and also because the level is less flexible to accommodate supply-side shocks. The targets are usually set initially for some future date, at least two years ahead, as the bank of England does, and a transition target is usually set when actual inflation is higher that targeted inflation. By contrast other, like the Reserve Bank of Australia, establish a range “over the cycle” instead of a time horizon.

There are also two types of inflation targeting. The “rigid” one, as that followed by New Zealand, where achieving the stated inflation target is the only objective, and the “flexible” target, as that followed by almost all other countries, where other variables are also taken into account. As a matter of fact, virtually all countries which practice inflation targeting use some form of a “flexible” definition, not least as many countries seek to minimise the so-called output gap in order to achieve the stated target.

Finally, Lars E.O. Svensson and Michael Woodford (2005) have shown the important role of economic forecasting on inflation targeting, so that they think that “inflation-forecast targeting”, is the optimal monetary policy. Woodford (2007) thinks that the US FED should be ready to adopt it because it makes sense, given that quantitative projections play already a major role in the internal deliberations of the FOMC and because its actual Chairman, Ben Bernanke, when he was only a member, mentioned that “the Federal Reserve relies primarily on the forecast-targeting approach”.

By this definition, they mean not only just a public announcement of an inflation target, which of course is a necessary condition, but also a commitment
to a specific structured approach to deliberations about monetary policy actions and a corresponding framework for communication about the justification for those actions. That is, a central bank that practices inflation-forecast targeting is also committed to adjust its instrument or instruments of policy (typically, this means its operating target for an overnight interest rate) in whatever way proves to be necessary in order to ensure that the bank’s quantitative projections of the economy’s future evolution satisfy a specific target criterion.

For example, the Bank of England has often stated that its monetary policy is intended to satisfy the requirement that the projection for a particular measure of inflation (currently, one based on a CPI) equals 2.0 per cent at an horizon of eight quarters in the future (2 per cent in 2 years) Although this description is plainly an oversimplification of the Bank’s actions, each issue of the Bank’s quarterly “Inflation Report” begins with an overview of the justification of the current stance of policy that contains two “probability fan” charts:

The first fan chart indicates the probability distribution of possible future evolutions of GDP (measured as the percentage increase in output on a year earlier) over a three year horizon, but with a vertical dotted line at two year horizon. The second fan chart shows the probability distribution of possible future evolutions of inflation (measured as the percentage increased in prices on a year earlier) over a three year horizon, but with a dotted vertical line at the two year horizon. Primary emphasis is given to the second fan chart in judging that the evolution of policy assumed in constructing the projections is suitable, which means that following that policy there will be a high probability that the 2.0 percent inflation rate will be crossing the vertical dotted line two years later.

This forward-looking decision procedure allows the central bank to use all available information about the current outlook for the economy, including non quantitative information or “judgment”, in determining the appropriate level of interest rates. Thus, there is a specific target criterion, which favours both focus in the decision making process and predictability of its Policy Committee decisions, instead of an intermediate target.

That is, inflation-forecast targeting in not tied to a mechanical formula that makes monetary policy a function of some very small set of present economic variables (like the Taylor Rule, which establishes that the FED Funds rate should be a linear function of inflation over the previous four quarters and the current output gap) and shows that the relation between the current economic variable to the variable that one wishes to stabilise may change over time.

Inflation-forecast targeting also involves a commitment to regular publication of the projections on the basis of which policy decisions have been made, typically through reports (like the Inflation Report of the Bank of England published four times a year). These publications help to anchor inflation expectations in several ways: First, they make the policy commitment of the central bank verifiable. Second, they allow people to observe how the central bank processes and responds to economic developments of various types,
which are widely discussed in every report. Third, the publication by the central bank of its own view of medium term outlook for inflation also helps to anchor its expectations even if actual inflation is higher than the one predicted.

Although there is only one numerical target and that inflation target is the primary concern of the monetary policy decision, this does not mean that projections of real variables should not be taken into account in monetary policy decisions, so that the evolution of these real variables may induce the central bank to achieve the target more quickly or more gradually. The Norges Bank is the most explicit among inflation target practitioners to target real variables as well by not only targeting inflation close to 2.5 per cent a year, but also targeting that projections should provide a reasonable balance between the path of inflation and the path of capacity utilization. Thus, the two criteria are not competing goals but must be balanced with one another.

In any case it is well known that while in the case of inflation, monetary policy can achieve pretty much any long-run desired average rate, in the case of real variables, such as growth or employment, monetary policy can have short-run effects, but very little ones over longer periods. In sum, according to Michael Woodford inflation-forecast targeting central banks should be more explicit about the near-term target criteria that their projections are expected to satisfy, rather that only speaking about their medium-run targets for inflation. It is important to specify not only the inflation rate that should be expected in the medium-run but also the nature of an acceptable path by which the economy is expected to approach it.

**Empirical evidence about inflation-targeting countries**

Most empirical evidence shows that the countries which have adopted inflation targets tend to have a lower inflation rate and lower business cycle volatility. Ben Bernanke et al (1999), Vittorio Corbo et al (2002), Manfred Neumann and Jürgen Von Hagen (2002), Yitan Hu (2003), Edwin Truman (2003) and Laurence Ball and Niamh Sheridan (2005) have all gathered the evidence that: First, inflation levels, inflation volatility and interest rates have declined after countries adopted inflation targeting. Second, output volatility has not worsened and if any has improved after its adoption. Third, exchange rate pass-through seems to be attenuated by the adoption of inflation targeting. Fourth, nevertheless, inflation targeters have not done better in the evolution of the said variables than non inflation targeters such as the US and Germany.

Laurence Ball and Niamh Sheridan (2005) argue that inflation targeting does not make a difference in industrial countries given that inflation tends to reverse to the mean in the long-run. Thus, as countries which introduce inflation targeting had a higher inflation rate, their inflation has fallen a higher speed that the one of the non targeters which had already a lower initial inflation rates. So, all have improved with different systems of monetary policy targets. Nevertheless, this view has been highly criticised by Markus Hyvonen (2004), Marco Vega and Diego Winkelried (2005) the IMF (2005) and Nicoletta Batini
and Douglas Laxton (2007) who provide new evidence, based on using samples that include emerging economies and different specifications and estimation techniques, that inflation levels, persistence and volatility are lower in inflation-targeting countries than in non-targeters.

But the adoption of inflation targeting is clearly an endogenous choice, as Frederic Mishkin and Klaus Schmidtt-Hebbel (2002) and Mark Gertler (2005) have shown, therefore, the finding that better performance is associated with inflation targeting may not imply that inflation targeting causes this better performance. The fact that the performance of the inflation targeters has not improved that of the US and Germany shows that what really matters for a successful monetary policy is establishing a strong nominal anchor. But recent evidence shows that inflation expectations seem to be better anchored by inflation targeting than by other nominal anchors (Refet Gürkanyak, Andrew Levin, Andrew Marder and Eric Swanson, 2007), (Andrew Levin, Fabio Nattalucci and Jeremy Piger, 2004) and (Efrem Castenuovo, Sergio Nicoletti-Altimari and Diego Palenzuela, 2003).

More recently, Frederic S. Mishkin and Klaus Schmidtt-Hebbel (2007) review all these evidences using a panel of inflation targeting countries and a control group of high-achieving industrial countries that do not target and find that inflation target helps to achieve lower inflation in the long-run, smaller inflation response to oil price and exchange rate shocks, strengthen monetary policy independence, improved monetary efficiency and obtain inflation outcomes closer to targets levels. Despite these favourable results for inflation targeting, their performance seems to be no better than the small control group of highly successful non-inflation targeters.

Is really the ECB an inflation targeter?

Some economists consider the ECB as an inflation targeter, although with a target less well defined that those mentioned earlier. William Buiter (2004 and 2006) considers that the ECB is using an inflation target that dare not to speak its name, although he thinks that its target it is asymmetric and awkward. Jean Pisani-Ferri, Philippe Aghion, Marek Belka, Jürgen Von Hagen, Lars Heikensten and André Sapir (2008) think that the ECB has a de facto inflation targeting framework that lacks transparency and that it should be converted, as soon as possible, into an explicit inflation targeting framework.

For this reason it is then important to look at the differences and similarities between the ECB monetary framework and that of the inflation targeters:

Inflation forecasts are at the centre of inflation targeting strategies and policy discussion and communication are organised around the forecast process and decisions are explained on the basis of deviations of the inflation forecast from an inflation target at a medium term horizon. The ECB also
produces semi-annual forecasts (in June and December) instead of on a quarterly basis, as most of the inflation targeters, but two internal updates are made in March and September.

But the ECB projections are based on a combination of models and expert judgments and produced and owned mainly by its staff under the responsibility of the Monetary Policy Committee, composed of senior staff from the ECB and the national central banks. Their final report is put to the ECB’s Governing Council. The ECB publishes summary reports of both the Eurosystem and the ECB’s staff projection exercises on the ECB’s web-site on the same day that are presented to the Governing Council and later on the ECB’s Monthly Bulletin.

The main difference of the ECB with the inflation targeters is that these forecasts do not constitute the main vehicle around which the policy process and communication is organised. Publication of these forecasts on the ECB Bulletin is only intended to make clear the information set is available to the Governing Council when taking decisions, but not to explain them. The ECB’s Governing Council bases its policy judgement and decisions not only on these forecasts but also on other many inputs, which include competing forecasts from other private and public organisations as well as other pieces of information that, for a number of reasons, are difficult to integrate into the ECB’s framework of projections.

Another major difference with inflation targeters is the existence of a monetary pillar, based on the three month moving average growth of M3, which also played the prominent role in the decision making process since it was considered the first pillar. But, in 2003, the ECB took a right decision by changing its monetary strategy making the monetary pillar lose most of its prominent role and by retain it only in order to recognise that money and credit growth are also useful indicators in judging medium to long term trends in price increases. By contrast, more weight was given to the economic analysis of the second pillar that has become the prominent element to identify short to medium run risks to price stability.

Miguel Angel Fernández Ordoñez (2007), the Spanish Central Bank Governor, has recently given the reasons why the ECB does not consider these forecasts to be the main vehicle for its monetary policy decisions and for its explanation and communication to the public and why the monetary pillar needs still to exist. His arguments are the following:

First, the inflation targeters use a framework where monetary policy responds to deviations between a conditional inflation forecasts at a specific time horizon (around two years) and the inflation objective. But he considers that this approach neglects the implications of policy for price stability at longer horizons. According to him, short term inflation control is not enough to prevent the emergence of imbalances, which may lead later to costly episodes of macroeconomic instability.
A case in point is the recent episode of a long period of low rates of interest and over-abundant monetary and market liquidity, which has ended in excessive risk taken and in problems of liquidity in many financial institutions and of solvency in some others. This is the reason why the ECB monetary strategy abstains from specifying a fixed time horizon for policy and why it accords due importance to assessing medium to long term risks to price stability.

Second, the use of inflation forecasts to make and explain monetary policy decisions is too rigid. On the one side, information that becomes available after the cut-off date for the projections cannot be, by definition, incorporated in the exercise, while the ECB Governing Council uses as well the most recent data and analysis from other sources to cross-check the inflation forecasts of the staff. According to him, this monetary policy approach to the assessment of economic developments and the outlook for price stability encourages cross-checking between different forms of analysis, is more flexible, more diversified, more pragmatic and robust and helps to avoid major policy errors.

Third, even the state of the art macroeconomic models used by central banks are yet unable to fully incorporate a richer description of the economy’s financial structure. Wealth effects, swings in asset prices, credit and liquidity constraints, and other financial frictions are not taken into account. These models have also difficulty identifying and estimating, with any degree of precision, the potentially significant role of financial variables and financial intermediation in the monetary transmission mechanism. That results in an oversimplified view about the channels through which monetary policy can affect economic activity and inflation.

Nevertheless, Fernández Ordóñez reckons that academic research is progressing and, at some point in time, workable operational models will be developed that will allow for more realistic settings where complex interactions between the real and financial sectors of the economy are acknowledged in full and where financial variables (notably, money and credit) play an active role in the monetary transmission mechanism. When this has been achieved, it will be possible to turn the two pillars of the ECB analysis into a larger, single pillar, as mentioned by Vice President Lucas Papademos (2006).

Therefore, it seems as if it would be only a question of time to expect the ECB monetary policy strategy becoming much closer to that of a flexible inflation targeting one.
Can the ECB get closer to flexible inflation target monetary policy?

In the meantime, two recent reports with similar approaches to these important issues have appeared lately: One by Bruegel, which looks for a straight and definite move to inflation targeting and the other, by CEPR, which asks for some intermediate steps needed before switching later into inflation targeting.

The first is the latest report by Bruegel (2008) on the Euro Area, written by Pisani-Ferry, Aghion, Belka, Von Hagen, Heikensten and Sapir, makes three recommendations for the ECB to stepping forwards into a best practice inflation targeting.

First, the ECB should integrate its economic analysis and its economic analysis into a single analytical framework. It also should set a band around its de facto inflation target of two percent, make it explicitly symmetrical and implement the targeting in a flexible manner.

Second, the ECB should publish forecast for inflation and GDP that reflect the views of the Governing Council. An inflation target, together with forecasts, will provide a better foundation for communication and it would provide a good basis for dialogue with the Euro-group.

Third, the ECB should voluntarily inform the Euro-Group that it has adopted a reformed inflation target and the Euro-Group should respond with an unequivocal endorsement (through an exchange of letters) to show public support for the improved framework.

These three recommendations are very ambitious and may be difficult to implement, so that they should be a blueprint for the future.

Transparency, Communication and Governance

The second is the recent report by the CEPR (2008) “Monitoring the European Central Bank” No. 6, by Petra Geraats, Francesco Giavazzi and Charles Wyplosz, which shows that financial markets still take a long time to understand the ECB’s monetary policy decision making. This lack of full understanding by financial markets ends up reducing its efficiency concerning monetary conditions and inflation expectations. The authors reckon that, at the present time, with the policy rate now close to neutral, financial markets face great uncertainty about the next policy move, including its direction. This shows how important it is for the public to understand the reasoning behind the ECB’s policy decisions, given that in a democracy, central bank independence must be constantly defended and the only defence is popular support.

Central bankers are non-elected officials to whom, important tasks are delegated. They must account for their decisions, of course, but when
confronted with powerful critics, they cannot ignore public opinion. Communication is central to obtaining popular support and support can be eroded by determined politicians, as shown by recent evidence of its declining trust among French citizens. The solution is better communication and not just toward financial markets. Communication, in turn, must rest on a clear strategy and a high degree of transparency.

How to achieve this greater transparency? First, by publishing voting records, without attaching names to votes, the situation would improve. Although the ECB claims that monetary policy decisions are always consensual, consensus is a vague concept and need not amount to unanimity. The voting patterns of other central banks, which are most transparent, strongly suggests that that it is extremely unlikely for a central bank to always decide by complete unanimity. Disclosure of individual monetary policy votes could subject central banks governors to national political pressures, but the ECB can publish unattributed voting patterns.

Second, the ECB can gain transparency by publishing its anticipated interest rate path. Policy effectiveness depends on the central bank ability to shape expectations. Helping the markets anticipate the next decision is not enough, because markets care much more about the future course of action. This one is the most frequently asked question at press conferences or other events. Over time, evasiveness has been replaced by the use of code words, forcing central bank watchers to develop considerable linguistic skills. But code words may be misinterpreted and its very imprecision reduces the effectiveness of monetary policy. The trade-off is not between an explicitly revealed interest rate and complete silence but between explicit communication and foggy signals.

Third, the internal organization of the ECB should be reconsidered, separating the role of the Executive Board members from the responsibilities of running the bank. Responsibility for overseeing the business should be limited to the president and vice president, delegating in a general manager and several sub managers. This would free up the other four Board members to preparing and communicating monetary policy decisions. The fact that the Board members have multiple functions dilutes the job description and widens the scope for political meddling when they are appointed as it has happened in some cases.

Fourth, meetings should be less frequent. Moving to the six week frequency as the FOMC, could help extend the time the Council dedicates to monetary policy decisions, while technical issues could be delegated to national central bank deputies. Finally, the ECB should report which Council members attended the meetings and the voting rights should not be delegated to an alternate.
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