Dániel Felcser and Kristóf Lehmann: The Fed's inflation target and the background of its announcement*

In the first stage of the crisis, the Federal Reserve (Fed) rapidly embarked on interest rate cuts followed by several rounds of substantial quantitative easing. However, the marked monetary easing and the persistently low interest rates triggered mounting fears of inflation, calling into question the Fed's commitment to medium-term price stability. In response to criticism and to the risks relating to monetary policy, in January 2012 the Fed announced an explicit inflation target of 2 per cent to exploit the fact that a numerical inflation target improves the transparency of the central bank, helps to anchor inflation expectations and fosters consensus about the definition of price stability among policymakers. With this move, the Fed added key elements of inflation targeting to its monetary strategy. The announcement confirmed that inflation targeting is becoming increasingly popular and may be an attractive and efficient monetary strategy, even for the largest central banks.

THE FED'S JANUARY ANNOUNCEMENT

During the global financial crisis, the Federal Reserve (Fed) in charge of U.S. monetary policy soon reduced the federal funds rate to practically zero; consequently, it could only employ non-conventional instruments¹ for the monetary easing required to achieve its statutory objectives. Before 2012, the Fed had announced two major asset purchase programmes (in March 2009 and November 2010), followed by the extension of the maturities of the government securities portfolio on its balance sheet starting in September 2011 ('Operation Twist'). Within the framework of the latter, long-term government bonds were bought and short-term bonds sold, and thus the average maturity increased without any major change in the balance sheet of the central bank. This measure contributed to lowering longer-term interest rates. Furthermore, in August 2011 forward guidance was added to their statement to the effect that economic conditions warranted 'exceptionally low rates' at least through mid-2013, instead of the earlier 'extended period'. Setting a longer horizon than previously anticipated may have also helped to lower long-term interest rates (Bernanke, 2012). In January 2012, the time horizon was extended even further, until late 2014.

To supplement these measures, simultaneously with the interest rate decision in January 2012, the Federal Open

Market Committee (FOMC) announced two new monetary policy tools: a 2 per cent inflation target as measured by the annual change in the personal consumption expenditures price index, and the publication of the policymakers' conditional forecasts for policy rates. These measures came as no surprise to market participants, as the central bank's communication had previously indicated such intentions. The minutes of meetings reveal that the two strategic steps were already considered in the autumn, following which the staff presented the proposals and a subcommittee devised the specific form of the measures. As the end result, the rate projections were integrated into the other variables of the forecast, while a separate announcement was published on the longer-term goals of the central bank.

The published announcement confirmed that the Fed continues to consider as its primary objective the fulfilment of its dual mandate, that is, price stability as well as maximum employment. On the other hand, it was also emphasised that the communication of a numerical inflation target may help keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the effectiveness of measures to promote maximum employment. Unlike inflation, the labour market is influenced by a number of factors over which monetary policy has no control (e.g. demographics, labour market

^{*} The views expressed in this article are those of the author(s) and do not necessarily reflect the offical view ot the Magyar Nemzeti Bank.

¹ When using non-conventional tools, the central bank strives to achieve its objectives through the use of mechanisms other than the traditional adjustment of the base rate (direct credit market intervention, for instance through high-volume asset purchases or government bond purchases). For more details, see Lehmann (2012).

regulation, minimum wages, qualifications). Consequently, it is not appropriate to specify a target value for employment alongside the inflation target. Nevertheless, the Fed takes into account the labour market situation when making its rate decisions. It was also emphasised that the two objectives - price stability and maximum employment - are generally not contradictory for policymakers; indeed, the measures adopted to maintain price stability tend also to improve employment. When this is not the case, the Fed follows a balanced approach in fulfilling its mandate, taking into account the magnitude and nature of shocks, the condition of the economy, deviations from the inflation target and the employment level consistent with its mandate as well as the time horizons over which employment and inflation are projected to return to levels judged consistent with its dual mandate.²

These measures fit into the series of steps taken by the Fed to enhance the transparency of its own operation: statements have disclosed votes by name since 2002, the minutes have been released before the next meeting since 2005 and press conferences have been held after rate decisions since 2011. Still, the assessment of the Fed's new strategic elements is not unequivocal. Some believe that by setting an inflation target, the Fed has introduced a so-called flexible inflation targeting regime (Anderson, 2012; Bullard, 2012; Carney, 2012), while others still do not consider the Fed to be an inflation targeter (Thornton, 2012). In the following, we assess the January 2012 announcements of the Fed in light of the economic debates on monetary policy and the statutory mandate.

BENEFITS OF THE NOMINAL ANCHOR AND THE PRACTICE OF INFLATION TARGETING

One factor behind the changes to the Fed's strategy could have been the numerous benefits offered by an explicit inflation target. Perhaps the most important of these is it helps monetary policy to better anchor inflation expectations, which plays a key role in maintaining price stability. In the absence of a nominal anchor, historic data and anecdotal evidence may divert inflation expectations more easily as the goal of the central bank is unclear. The statement of the FOMC also emphasised the efficiency of the explicit target in anchoring inflation expectations. The announcement also had the objective of increasing the transparency and effectiveness of monetary policy (Bernanke, 2012). For the announcement, the decision-making body of the central bank must reach a consensus on the level of the nominal anchor. This consensus provides for a more coherent decision-making process, more effective price stability related communication and the enhanced accountability of monetary policy. Finally, in the event of more easing to stimulate the real economy, there is less risk of rising inflation expectations, which may also be an important consideration in the present situation.

The effectiveness of the explicit target is shown by the rapid international spread of inflation targeting and its success as a strategy. Inflation targeting (IT) is a monetary policy strategy where the central bank strives to achieve its primary objective of price stability through a publicly announced inflation target. Inflation targeting was first introduced in New Zealand in December 1989. In the subsequent two decades, a number of other countries followed suit and now this strategy is employed by the central banks of 27 countries at different levels of economic development throughout the world (on the main features of the regime, see MNB, 2012). Experience shows that the regime has been successful in curbing inflation (e.g. Roger, 2010), and consequently, no central bank has abandoned the IT strategy so far, with the exception of some euro-area members as they introduced the common currency. Based on the current international best practice, inflation targeting central banks (IT central banks) operate in a so-called flexible inflation targeting framework. Under this regime, in addition to its primary goal of maintaining price stability, the central bank attempts to reduce economic volatility which arises from other sources and reduces social welfare (see Carney, 2012; Svensson, 2009). Inflation targeting has typically been a regime for small, open economies, but in addition to the IT central banks of a number developing and developed countries, the strategies of several central banks with global significance, such as the Fed and the European Central Bank (ECB) also contain elements of IT. Furthermore, in 2012 the Fed and the Bank of Japan took another step towards an IT regime by announcing explicit inflation targets. (See Box 1 on the measures of the Bank of Japan.) The announcements indicate that a shift towards IT offers an attractive monetary policy framework to major central banks as well.

² Unlike demand shocks, supply shocks affect inflation and output in opposite directions; therefore the central bank is faced with a trade-off between stabilising inflation or output. For instance, in oil importing countries a rise in oil prices is soon reflected in consumer prices through increasing petrol prices, and the higher transportation costs may in the longer run trigger price increases in a wider scope of products. Increased production costs prompt businesses to reduce their output, which in turn slows GDP growth. Relative stabilisation of consumer prices would result in additional output losses in the short term and add to the volatility of the real economy, while in the absence of a central bank response the entire effect of the shock would be reflected in prices and built into the pricing decisions of economic agents. Thus in this case both objectives need to be compromised and the partial stabilisation of both prices and output may be the appropriate decision.

The Fed conducts monetary policy in a framework other than IT, based on its so-called dual mandate. The 1977 amendment of the Federal Reserve Act set three goals for the Fed: maximum employment, price stability and moderate long-term interest rates. This was the first time that the maintenance of price stability was added to the tasks of the Fed, reflecting the changing economic thinking in the wake of the double-digit inflation of the 1970s. As the Fed can moderate long-term interest rates mostly by keeping inflation low, which reduces the inflation premium required by investors from long-term assets, the goals of the Fed are generally referred to as the dual mandate. This name reflects the idea that price stability and maximum employment have the same weight and the goal of price stability does not play a primary role. This, however, does not preclude the setting of an explicit inflation target.

The simultaneous achievement of price stability and the employment goal means that the Fed must strive to keep unemployment close to its natural rate. In other words, maximum employment does not mean zero unemployment, but rather a sustainable level of employment that does not result in inflationary pressure, or to put it differently: where unemployment is at its natural rate (Meyer, 2004). The differentiation between the two employment concepts was reinforced by the Humphrey-Hawkins Act of 1978, which clarified the amendment of the Federal Reserve Act in the previous year. Furthermore, while the Fed may have only a minimum effect on the long-term unemployment rate, it may be able to smooth short-term economic fluctuations (Judd and Rudebusch, 1999). Thus, it is more appropriate to interpret the goal of maximum employment as the stabilisation of output. In this interpretation, under its dual mandate the Fed strives simultaneously to reduce the volatility of inflation and of the real economy - similarly to a number of other central banks.

In its practical, flexible form, IT also includes the mitigation of both types of volatility. Central banks are aware that

excessive volatility in the real economy must also be avoided, balancing between considerations of inflation and the real economy. The economy may be subject to a number of shocks that may divert inflation from the designated inflation target. Below a certain - typically medium-term - projection horizon, IT central banks strive to bring inflation back to a level consistent with price stability. The length of the horizon may depend on the size and nature of economic shocks. Assuming a credible monetary policy, the central bank may disregard the effect of temporary shocks, and by stabilising inflation in the medium term it may avoid causing excessive real economic volatility in the economy and the money markets. For instance, when the economy suffers a supply shock (e.g. an increase in oil prices) and inflation could be brought back to the target only at additional costs to the real economy, the central bank does not attempt to fully offset the shock, but rather only tries to moderate second-round effects. Indeed, in case of a flexible IT real economic swings may be dampened more effectively because due to the anchoring of inflation expectations, a temporary departure from the inflation target has no major effect on longer-term inflation. This, however, requires a credible nominal anchor.

Flexible IT does not limit the room for manoeuvre of central banks as compared to the dual mandate, as it also takes into account considerations of the real economy when conducting monetary policy. Empirical research shows that inflation targeting central banks have been able to curb inflation with lower economic volatility than the central banks of countries at similar levels of development which adopted different monetary regimes (Levin et al., 2004; Roger, 2010). Thus, the stabilisation of inflation at a low level does not need to be accompanied by greater economic volatility. Indeed, results indicate the opposite: by anchoring expectations, central banks can be more effective in smoothing economic swings as well.

Box 1

The inflation goal of the Bank of Japan

The Bank of Japan (BoJ) is one of the central banks of a developed country that conducts monetary policy in a regime other than inflation targeting. In February 2012, however, practically simultaneously with the Fed, they introduced an important IT element, setting an explicit inflation goal temporarily at the 1 per cent level while establishing a medium- and long-term goal of 2 per cent or less. The announcement intentionally avoided the use of the term 'target', which is associated with inflation targeting, using 'goal' instead to show a lesser degree of commitment than under the inflation targeting regime, with no target date announced.

In the past fifteen years, the Japanese economy has faced severe growth problems due to the extended deleveraging process. Economic policy has moved towards flexible wage adaptation to moderate the decline in employment. In response to falling wages, intense

competition among businesses and growing imports, enterprises changed their pricing strategy and deflation (falling general price level) followed. Intense competition prompted cost cutting by businesses, which in turn drove up unemployment and even though consumption expanded, deflation remained (Chart 1).

Persistent deflation was linked to expectations of weak economic growth. In the course of the deleveraging which started in the 1990s, economic stimulation was ineffective despite continuous monetary easing. The BoJ announced that the zero interest rate policy introduced in 1999 would be maintained as long as deflationary expectations prevailed. However, monetary easing proved to be ineffective. On the contrary, the dotcom crisis followed by fears of global recession starting in 2001 only reinforced expectations of low economic activity and falling price levels in Japan. As traditional monetary policy instruments had already reached their limits, the BoJ resorted to quantitative easing between 2001 and 2006 to stimulate growth and lending. During those six years the stimulation of the economy produced



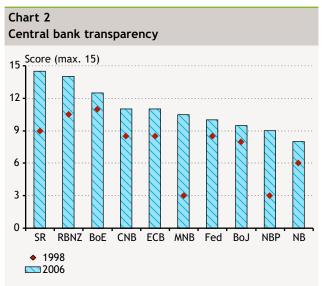
no appreciable results and deflationary expectations stabilised. Given the renewed growth problems during the global financial crisis, continued monetary easing was unable to persistently prevent the decline of price levels.

It may have been due to the ineffectiveness of the zero base rate and the non-conventional measures that the BoJ took a step towards inflation targeting. The Governor of the Japanese central bank, Masaaki Shirakawa, hinted that the BoJ was trying to publicly clarify general monetary policy principles (Shirakawa, 2012). Previously, policymakers had separately specified their own views on the percentage consumer price index that was consistent with price stability. The statements and announcements of the central bank in previous years showed an understanding of price stability similar to the goals now announced. Thus, the present announcement did not represent a substantive change, but the collectively announced inflation goal may help anchor expectations. Shirakawa emphasised that the primary responsibility of the central bank was to overcome deflation, and then to achieve sustainable growth with price stability (1 per cent inflation). The decade-long period of deflation may be the reason that the short-term objective was identified as 1 per cent, along with the medium- to long-term goal of 2 per cent or less.

The announcement of the BoJ represented a step towards IT, but without the other instruments of IT (great degree of transparency, inflation reports, priority of the inflation goal) it is no more than that, while no serious commitment to achieving the inflation goal has been made. At the zero lower bound, the BoJ is unable to rely on interest rate policy while the experience of two lengthy periods show that quantitative easing has been unable to shift the economy towards a 1 per cent rate of inflation, and thus the only remaining tool was communication and the adjustment of the set of objectives. Within this, the indication for the expected interest rate is also linked to inflation, unlike in the case of Fed, for instance, which gives a specific period, currently lasting until mid-2015. At the press conference where the inflation goal was introduced, the expansion of the asset purchase programme was also announced. The dual announcement was meant to curb deflationary expectations. According to Shirakawa, in the wake of the crisis central banks have tried to improve their monetary regimes, learning from each other's lessons important elements such as the explicit inflation target. This happens by a convergence in the operation of central banks, which blurs past differences to some extent.

FED'S CONVERGENCE TO INFLATION TARGETING

Before the financial crisis, the performance of the Fed was viewed with general satisfaction. Its achievements in curbing inflation and anchoring expectations contributed to the credibility of monetary policy. The employment mandate of the central bank may allow economic policymakers to use it as an excuse to prioritise the short-term political benefits of low unemployment over the longer-term economic costs of higher inflation – but the good inflation results of the Fed did not hint at any substantial political pressure (Labonte, 2012). Furthermore, in respect of transparency, the Fed was by and large in line with other major central banks (ECB, Bank of Japan) and the inflation targeting central banks of developed countries in the 1990s, and more progress



Note: The abbreviations for central banks: SR: Sveriges Riksbank, RBNZ: Reserve Bank of New Zealand, BoE: Bank of England, CNB: Czech National Bank, ECB: European Central Bank, MNB: Magyar Nemzeti Bank, Fed: Federal Reserve, BoJ: Bank of Japan, NBP: National Bank of Poland, NB: Norges Bank. Source: Dincer and Eichengreen (2010).

followed in the 2000s (Chart 2). In the 2000s, before the outbreak of the crisis (at the time of the so-called 'Great Moderation'), dynamic growth was coupled with high employment and low inflation, and thus the main requirements from modern central banks and in particular the Fed were apparently satisfied.

Despite the good performance, there were intense economic debates as to whether a switch should be made to inflation targeting as an alternative to the dual mandate. Critics of the IT argued mainly that the new framework for achieving only the inflation target would limit the manoeuvring room of the Fed, and that the inflationary effects of shocks would need to be offset within a fixed horizon, which would reduce the flexibility of the Fed (Friedman, 2004; Meyer, 2004). Following this logic, the inflexibility of inflation targeting would lead to a greater volatility in the real economy because, for instance, in the event of a supply shock it would give preference to meeting the inflation target. In the discussions of the FOMC the members failed to reach a consensus on a number of items ranging from the target indices (headline consumer price index or core inflation) to the definition of the specific target value.

Proponents of IT emphasised that the monetary policy of the Fed was flexible, but the absence of clear long-term goals caused greater uncertainty, which could have been avoided if there were a nominal anchor. The performance of the Fed was also more difficult to assess while the benchmark was unknown. According to this rationale, despite the success of the dual mandate, IT would provide a clearer strategic framework for the Fed. The research of Bernanke et al. (1999) indicates that IT is the best available framework to keep inflation and expectations low in the long run in order to promote economic growth, while in the face of economic shocks it also permits temporary deviations from price stability. For instance, the optimal monetary policy takes into account the size and nature of shocks and flexibly moves the horizon accordingly. Despite the good assessment of the Fed's inflation performance, it was noted that compared with IT central banks, inflation expectations were less anchored in the case of the Fed because the longterm inflation expectations of the private sector responded more sensitively to economic news (Gürkaynak et al., 2010).

The practical working of IT, particularly during the crisis, also proved that the inflation target is not in conflict with growth. In response to worsening growth prospects, the central banks of developed countries lowered the base rate to near zero within a short time, followed by high-volume asset purchase programmes and other measures also aiming for quantitative easing. In this, they were supported by weak demand moderating price and wage developments as well as the credibility of monetary policy established by the low inflation of the preceding period and the anchored inflation expectations. Alongside IT banks, the Fed also played a pioneering role in devising monetary policy instruments to stimulate economic recovery.

In the course of the crisis concerns were raised, however, that due to the substantial quantitative easing and prolonged low interest rate levels, the Fed could face problems of inflation in the longer run. After the tensions on the subprime market and the Lehman bankruptcy, the Fed attempted to handle market frictions through aggressive monetary easing, in order to avoid a banking crisis. Even though the Fed initially justified this by the need to avert the risk of deflation, strong quantitative easing and progrowth communication increased inflation fears, particularly in 2011, when inflation soared in the wake of the global commodity price shock, and 12-month inflation expectations increased considerably (Chart 3). Longer-term expectations were anchored; however, surveys showed that uncertainty increased after the onset of the crisis: while the central tendency remained stable, an increased percentage of respondents expected deflation or higher inflation (Pasaogullari and Bianco, 2010). All this may have been a warning sign for credibility concerning price stability, and over time it could have threatened longer-term expectations as well.

As a result of the strong fiscal easing and the consolidation of the financial sector, U.S. public debt rose sharply. Gross public debt increased by one-half in 4 years, exceeding 100



per cent of GDP by end-2011. It came up for discussion that as most of the U.S. debt is fixed in nominal terms, high inflation would reduce the debt to be repaid in real terms, and thus the accumulated debt could be reduced through higher inflation (see for instance Aizenman and Marion, 2009). These ideas may also have strengthened expectations that the Fed would tolerate higher inflation in the future, which could have also prompted the Fed's policymakers to establish a more transparent strategic framework.

These problems revealed that the former implicit inflation target needed to be replaced by a strong nominal anchor. Economists now tend to think that in the Greenspan period (1987–2006) the Fed had an implicit inflation targeting regime that had no explicit, numerically expressed inflation target up till the end of January 2012 (Goodfriend, 2004).³ Price stability was one of the goals all along and policymakers also made their commitment to this goal clear, while there was no consensus on the level of inflation the individual policymakers would consider consistent with the mandate

of price stability; this could have been aggravated by the turnover in the members of the FOMC.⁴ From early 2009, an indication of the implicit target could be found in the longrun inflation forecast of the members, which showed the value which the various policymakers thought inflation would converge to over the longer run, given an 'appropriate' monetary policy; based on this, the price stability mandate of the Fed was generally interpreted to mean a 2 per cent inflation target (Kocherlakota, 2010).⁵ By making the inflation target a specific, explicit number, the Fed can offer a firmer nominal anchor to the U.S. economy without incurring any cost to economic growth.

The main aspects of the present strategic framework of the Fed are consistent with the international best practice of inflation targeting, while certain unique features can also be identified. The point target selected by the Fed is characteristic of most IT central banks. Some of them also identify a symmetric tolerance band around the target, but a target band diverts attention from the actual inflation path, providing less firm orientation for expectations. The level of the inflation target (2 per cent) is within the 2-3 per cent interval typical in developed countries and in line with the implicit target emerging from the earlier projections of the policymakers (Chart 4). By contrast, the indicator for the inflation target and the absence of a uniform inflation report differ from the established practice of IT regimes. While IT central banks tend to set their targets in terms of the Consumer Price Index (CPI), the Fed opted for the Personal Consumption Expenditures Price Index (PCEPI). The PCEPI takes into account changes in consumer habits and a broader range of products and services, such as expenditures of public health care programmes, but it is regularly revised over time.⁶ The absence of a uniform inflation report is another difference compared to the practice of IT central banks, even though the regional Fed banks analyse the economic developments of their respective regions and the Federal Reserve Bank of New York also publishes detailed reports containing a staff projection. A regular, comprehensive publication used for the decisions of the FOMC could be conducive to the better

³ Being an implicit IT central bank, the Fed influenced the policy rate the way an explicitly IT central bank would have done, that is, it responded to the deterioration of inflation prospects with a rate increase.

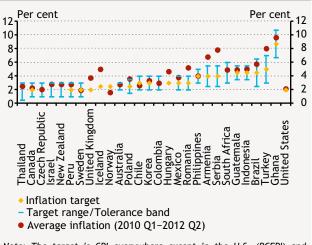
⁴ The FOMC has 12 members: the 7 members of the Board of Governors, the President of the Federal Reserve Bank of New York and four of the remaining 11 regional Federal Reserve Bank presidents, who serve one-year terms on a rotating basis.

⁵ In 2011, the central tendency, which excludes the three highest and the three lowest projections, outlined a 1.7–2.0 per cent long-term range for inflation, as measured by the price index for personal consumption expenditures.

⁶ The two indices differ primarily in the statistical methodology of their calculation, the coverage of products and services consumed, the relative weighting of products and services (consumer or retail survey) and other statistical aspects (seasonal adjustment, imputed prices) (Clark, 1999). The variable basket of goods used for the PCEPI follows changes in purchasing patterns better, while the consumer price index is simpler and the measurement of prices is more reliable. The two indices typically move together, though significant differences may arise from time to time. This is partly explained by the fact that the PCEPI is better at capturing the substitution effect between products with rising prices and their substitutes through the changing consumption weights, and thus the price index may be lower than the CPI.

understanding of monetary policy (Bernanke et al., 1999; Plosser, 2012), but critics of the idea think that it would give greater relative weight to inflation developments, and thus it would be inconsistent with the 'spirit of the dual mandate' (Meyer, 2004). In the meantime, the projections of the members are published, the reasoning behind the decision is explained in a press conference and other communication channels are also used intensively to lay the foundations for the necessary openness. Furthermore, since early 2012 the projections for the federal funds rate have also been published. The published policy rate projections help with the interpretation of the forecasts and the overall macroeconomic path and facilitate an understanding of the thoughts and positions of the policymakers (for more details, see Box 2).

Chart 4 Inflation targets of IT central banks for 2012

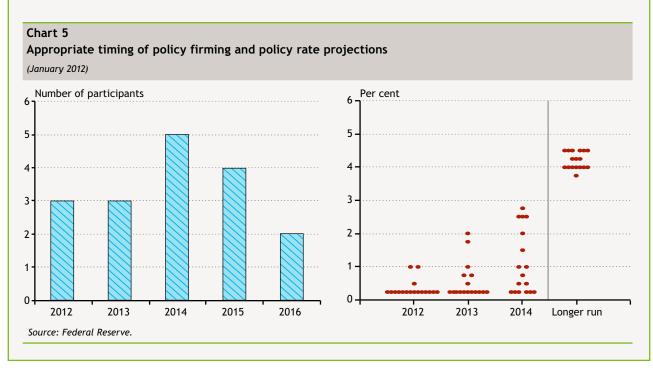


Note: The target is CPI everywhere except in the U.S. (PCEPI) and Thailand (core inflation). The Thai central bank has already proposed the introduction of a headline inflation target (3±1.5 per cent), but this has been postponed for the time being. The inflation figures are expressed in the indicator appropriate for the target. For Thailand, average inflation is the 12-month moving average.

Source: IFS; Bureau of Economic Analysis; Bank of Thailand; Hammond (2012).

Box 2 Forecasting the federal funds rate

In addition to announcing the inflation target, since early 2012 the federal funds rate projections of policymakers have also been made public. Thus, the federal funds rate was added to the forecasted variables, with the Fed joining the ranks of a few inflation targeting central banks (New Zealand, Norway, Sweden, Czech Republic). It should be noted that the federal funds rate projection is not a promise; instead, it shows the path projected based on the information available at the time. In addition, in the case of the Fed it is more of an assumption rather than a projection in the narrow sense. This is because it does not show the most likely path, but rather



the interest rate that, in the opinion of the various policymakers, would facilitate the achievement of the desired economic (inflation, employment) outcome (Plosser, 2012). The publication of interest rate projections makes the conduct of monetary policy easier to understand and economic agents may have a clearer notion of future policy rates. In this respect, it is not the accuracy of the initial projections that matters but the fact that economic agents may observe the projections change over time and thus they can learn more about the Fed's reaction function (Evans, 2012). This may help households and businesses make more informed decisions, reduce economic and financial uncertainty (and thus long-term interest rates) and increase the efficiency and accountability of monetary policy.

However, conclusions concerning monetary policy should be drawn from the projections with caution because individual projections are taken into account when adopting a decision, but the main communication tool is the FOMC statement. The interest rate projection may clarify the forward guidance given in the statement, but there may also be conflicts between them. This is possible because projections are made not only by the current members of the FOMC, therefore they also reflect the personal assessments of non-voting members at the time. By contrast, the statement contains the views of the FOMC members.

The Fed does not publish the entire interest rate path just like in the case of the other projected variables, as opposed to the Swedish, Norwegian or Czech central banks. Instead, the projections are displayed in two charts. The first chart shows the expected year of the first increase in the policy rate (Chart 5, left panel). This reflects the guidance that the federal funds rate may remain extremely low until end-2014. The second chart shows the projections for the last quarter of the current year, for subsequent years and over the longer run (Chart 5, right panel). The chart also indicates that the 'particularly low interest rates' do not necessarily coincide with the current 0–0.25 per cent. The median is 0.75 per cent, thus the 0.25–0.75 per cent range may fall into the particularly low category.

With its January announcement the Fed took a major step towards inflation targeting. Nevertheless, in formal terms it is not an IT central bank because there is no commitment to the priority of price stability, as the employment objective is not subordinated to price stability (Table 1). According to a widely accepted classification, inflation targeting requires that the central bank has an explicit, numerical inflation target and a hierarchical set of objectives, that is, the inflation target has priority among mandates. With the announcement in January, the first criterion is now satisfied but the Fed still fails to meet the second one. The other elements of strategy, however, are all present in the operation of the Fed, and any further approximation may be hindered by political and legal obstacles. The strategy of IT could be legally introduced in the framework of the current mandate of the Fed, if it considers that this would be conducive to achieving its objectives more efficiently (Labonte, 2012; Plosser, 2011). In the present labour market environment, however, dropping or de-emphasising the employment mandate would be a politically difficult decision. Since the onset of the crisis, the U.S. labour market has still not recovered; in light of this, commitment to the priority of price stability would not necessarily coincide with the preferences of policymakers or households and it would be difficult to communicate against the backdrop of the current fragile economic recovery and loose labour market conditions. Nevertheless, we think that despite the tradition of the dual mandate the Fed has effectively committed itself to a monetary policy strategy corresponding to flexible IT.

In the past six months, soaring inflation expectations have been corrected and inflation has decreased. Though the elapsed time is too short for comprehensive analysis and for conclusions to be drawn, in 2011 Q4 and 2012 Q1-Q2 the U.S. economy produced dynamic annual growth of over 2 per cent on average, while disinflation continued despite the high energy prices early in the year. The (one-year)

Table 1

| Is the Fed an inflation targeting central bank: assessment based on the criteria of Mishkin (2004) | |
|--|-----------|
| Criterion | Satisfied |
| Announcement of medium-term numerical target for inflation | ✓ |
| Institutional commitment to price stability as the primary goal of monetary policy | × |
| Information inclusive monetary strategy | ✓ |
| Increased transparency of monetary policy towards the public and the markets | ✓ |
| Increased accountability of the central bank for the attainment of its inflation objectives | ✓ |

inflation expectations subsided despite the growth prospects, favourable in international comparison, and the persistent high level of energy prices. All of this created appropriate conditions for the new asset purchase programme of the Fed announced in September 2012, whereby it will purchase USD 40 billion of mortgage-backed securities (MBS) a month. In addition to the new asset purchase programme, existing instruments (such as the aforementioned 'Operation Twist') have also been extended to the end of the year and the federal funds rate is projected to remain low until mid-2015, i.e. longer than previously envisaged. Based on the projection of the Fed, inflation will remain on target despite continued easing, growth will pick up, and by end-2014 unemployment may slowly fall to below 7 per cent. In our opinion, the new strategy elements announced in January may have contributed to the successful anchoring of inflation expectations and may continue to play an important role in the future.

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