

Financial crisis and monetary policy targets

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The prolonged financial market and sovereign debt crisis has stimulated increased research into economic policy measures and their effectiveness. In monetary policy, the zero lower bound has brought about new non-standard measures as well as forward-looking communication on future accommodation. The aim of such forward guidance is to generate expectations that policy is going to remain accommodative for some time. With the financial crisis, there is also fresh interest in price level and nominal income targeting as alternatives to inflation targeting.

Introduction

The financial market and sovereign debt crisis has touched all countries in the major currency areas. It began in 2007 with the US housing market crash and spread quickly after the collapse of Lehman Brothers. Banks ran into funding problems, the world economy dipped into recession and, in 2010, the crisis evolved into a sovereign debt crisis in several European countries. The crisis is now in its sixth year.

As the crisis spread, central banks swiftly lowered their interest rates. Governments pursued accommodative fiscal policies. The crisis continued, and monetary policy was approaching the zero lower bound. In many countries, fiscal policy was constrained by over-indebtedness and the resulting higher loan costs and greater difficulties in obtaining new loans. At the same time, households and non-financial corporations began to deleverage and banks started to repair their weakened balance

sheets, further limiting their lending to the private sector.

The protracted crisis has given new impetus to the analysis of economic policy measures and their impact. Both fiscal policy and monetary policy have come under scrutiny. As banks have played a key role both in the lead up to the crisis and during the crisis, one strain of the discussion has focused on financial market and banking regulation, supervision and crisis management. It has become obvious that changes in the regulatory and supervisory environment are going to have a major impact on the functioning and methodology of central banks.

With the real economy not recovering regardless of accommodative interest rates, monetary policy has become the subject of increasingly lively and topical discussion. The focus of interest is on the zero lower bound and the non-standard monetary policy measures introduced by central banks. Such measures cause expansion in the central bank's balance sheet while providing liquidity support to the banking system and ideally bringing down long-term interest rates.

A number of contradictory assessments have been presented regarding the effectiveness and long-term impact of non-standard measures. There is, however, rather broad consensus that, together with the swift lowering of interest rates, the non-standard measures have helped avoid a deflationary spiral as in the 1930s. The international community has also been able, at least for the time being,



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Price stability established itself as the primary objective of monetary policy in the 1990s.

to prevent a large-scale trade and currency war that might lead to competitive devaluations and a proliferation of trade barriers. In longer perspective, a key concern is the fear that monetary policy easing might have an inflationary effect in the long term.

Recent discussion has examined the objectives of monetary policy. In the 1990s, price stability established itself as the primary objective of monetary policy for all major central banks. Many adopted an inflation target. They were aiming for low and stable inflation expectations and building a new approach that would enable market participants and the public to assess the success of their monetary policy. Stable inflation expectations were seen to support economic growth and promote financial market stability.

During the financial crisis, it has been proposed that one-sided targeting of price stability or low inflation could perhaps have contributed to the development of the crisis. Monetary policy might have been too loose and contributed to over-indebtedness and excessive house prices in the run-up to the crisis. According to this way of thinking, monetary policy decision-makers should have given greater consideration to asset prices and rapid lending growth, not just inflation.

In their search for alternatives to inflation targeting, several authors have brought up price level targeting and nominal income targeting. The former means setting a target path for the level of prices. Nominal income targeting is similar, except that the central banks seek to keep nominal GDP – rather than the price level – around its target path.

This article describes the proposed alternatives to inflation targeting and reviews monetary policy strategy in the light of recent discussion. Monetary and exchange rate targets, which dominated discussion in earlier days, are not considered here. Monetary targeting has not been seriously proposed in current discourse. Exchange rate targeting could be a relevant monetary policy strategy for a small open economy country that wants to use a major currency as an anchor for the external value of its currency to gain credibility for its monetary policy. For countries with a major currency, such as the euro area countries, the United States, Japan or Great Britain, this is not an option.

General principles of monetary policy

In the pre-crisis days, the dominant theory of macroeconomics was the new neoclassical synthesis.¹ The literature on this suggests the following nine principles are suggested for monetary policy:²

1. Inflation is a monetary phenomenon.
2. Price stability brings about important benefits.
3. There is no long-run trade-off between unemployment and inflation.

¹ The *new neoclassical synthesis* combines key elements of new classical macroeconomic theory and new Keynesian theory. The former is concerned with dynamic (intertemporal) general equilibrium, rational expectations and technological changes as a driver of cyclical fluctuations. The latter stresses the importance of nominal rigidities, such as sticky prices, in determining the resilience of an economy. These nominal rigidities are the reason why monetary policy has a short-term impact on production and employment rates. See Goodfriend and King (1997), Woodford (2009) and Gali (2008).

² Mishkin (2011).

4. Expectations play a crucial role in the determination of inflation and the transmission of monetary policy to the economy.
5. Real interest rates need to rise with higher inflation.
6. Monetary policy is subject to a time-inconsistency problem.
7. Central bank independence improves the credibility of monetary policy.
8. Commitment to a nominal anchor for monetary policy is essential.
9. Financial frictions play an important role in the business cycle.

These principles are more or less formally acknowledged in all central banks striving to maintain price stability or low inflation. One solution to the time-inconsistency problem in the sixth principle has been central bank independence coupled with a clear and unequivocal objective, such as price stability.³

The last principle emphasises the imperfections of the financial markets, but it was long neglected in the new neoclassical synthesis and the models used by central banks.⁴ In fact, it has only been given importance recently in policy analysis and in projections of

³ A time-inconsistency problem arises when decision-makers have conflicting objectives in the short and longer term. In the context of monetary policy, this typically happens when a central bank would have incentives to keep monetary policy excessively loose over the short term. In such a situation, the time-inconsistency problem can result in high inflation without positive employment effects. Principle three states that there is no long-run trade-off between unemployment and inflation.

⁴ This has been a recurring theme in literature since Irving Fisher (1933). Theoretical literature has reviewed frictions between lenders and borrowers (Bernanke & Gertler 1989 and Kyotaki & Moore 1997) as well as the cyclical impact of financial intermediaries and their balance sheets (Bernanke et al. 1999, Gertler & Kiyotaki 2010 and Holmström & Tirole 1997). Blanchard et al. (2010) examines the wider impact of the financial crisis on macroeconomic policies.

future developments as a result of the financial crisis. Macroeconomic general equilibrium models have proven to be flexible, and many have been extended to take into account frictions in financial intermediation.

Price stability as a monetary policy objective

The European Central Bank has published a book entitled ‘The Monetary Policy of the ECB’ which includes the following statement: ‘The objective of price stability refers to the general level of prices in the economy and implies avoiding both prolonged inflation and deflation. There are several ways in which price stability contributes to achieving high levels of economic activity and employment.’⁵ Price stability makes it easier to compare relative prices, reduces inflation risk premia in interest rates as well as the need to hedge against unexpected price fluctuations, diminishes distortionary impacts of tax and social security systems, makes it more advantageous to hold cash and other liquid assets and helps to prevent arbitrary redistribution of wealth and income. Price stability is also considered to contribute to the achievement of broader economic goals and to the longer-term stability of the financial system.

A price stability objective can take the form of either a price level target or an inflation target. Setting a price stability objective involves selecting a suitable price index and a numerical value. The

Since the onset of the financial crisis, financial market imperfections have begun to receive greater attention.

⁵ European Central Bank (2011), p. 56.

A price stability objective generally implies keeping inflation low and steady.

target could be, for example, an unchanged price level as measured by the CPI or zero inflation. Generally, though, central banks aim to keep inflation low and steady. The target can be expressed either as a point value or as a range.

Flexible inflation targeting

The principles of the new neoclassical synthesis are the basis for the most widely accepted strategy in present-day monetary policy, known as flexible inflation targeting. No central bank disregards real economic developments and conducts monetary policy solely from the point of view of achieving its price stability objective, regardless of whether its legal basis dictates a strict inflation target and makes the Governor accountable for achieving it.

When a central bank conducts monetary policy with flexible inflation targeting, it sets the policy rates to bring the forecast for inflation and production in line with a target path. The financial market situation (credit growth, asset prices, indebtedness etc.) is only taken into account insofar as it is expected to have relevance for the targeted variables.

Central banks with a flexible inflation target will allow inflation to deviate from the target in the short term. They rarely react to a temporary impetus from eg oil prices. Instead, they use inflation expectations to gain information for selecting the proper monetary policy stance. Central banks aim to keep inflation expectations steady and in line with their inflation target.

For central banks with an inflation target, bygone are bygone, ie deviations in price level caused by

unexpected inflation shocks are not smoothed out later by pushing inflation above or below target. There is no target for future price levels. In other words, reducing uncertainty about inflation does not entirely remove uncertainty about future price levels, as the impact of unavoidable inflation shocks on future price levels is permanent.

The Statute of the European Central Bank makes price stability the primary objective of the ECB. The ECB pursues its objective with a strategy not unlike flexible inflation targeting. The price stability objective has been defined operationally as an inflation rate below but close to 2%. Risks to price stability are assessed with two analyses: the economic analysis (of real economic developments) and the monetary analysis (of money and credit growth). The US Federal Reserve System (Fed) has adopted a numerical inflation target of 2% only recently, in early 2012. The Bank of England, the Bank of Canada, Norges Bank, Sveriges Riksbank and the Reserve Bank of New Zealand are examples of central banks that have very explicitly based their monetary policy strategy on flexible inflation targeting.⁶

Pre-crisis monetary policies in the major economic areas can be characterised as gradualist. Inflation expectations remained stable and in line with targets, and interest rates were consequently changed in small steps. Assessments of future economic developments usually considered tail risk scenarios highly

⁶ For further information on flexible inflation targeting in practice, see Gjeldrem (2004), Bollard & Karagefikli (2005), Svensson (2009), Ingves (2011) and Carney (2012a).

unlikely. In hindsight, it has been easy to point to loose monetary policy around the middle of the first decade of the 21st century, and yet it is highly uncertain whether more active monetary policy could have prevented the financial crisis. A number of important reasons for the crisis are linked to the functioning of the financial markets and banks.

One lesson we can draw from the financial crisis is that low inflation and stable inflation expectations alone cannot guarantee financial market stability. Before the crisis, there was a clear demarcation between monetary policy and financial market supervision. Financial supervision had the task of preventing excessive risk-taking on the markets. Ex post it is clear that neither central banks nor supervisors were believed to have the tools to effectively address excesses on the financial markets. The lessons of the crisis have now led to such tools being developed around the globe.

Price level targeting

There has been extensive debate about price level targeting as a monetary policy objective and a number of articles have been published on the topic.⁷ However, no central bank has thus far adopted a price level target.

A price level target is set by defining a target path for a price index. A price level target of 2% differs from a 2% inflation target in that the central bank commits to correcting any deviation resulting from inflation shocks.

⁷ The academic discussion has been summarised by eg Mayes (2008) and Ambler (2009).

In theory, reducing uncertainty about the price level should foster economic welfare in the long term and stable macroeconomic conditions in the short term. Monetary policy that seeks to correct earlier deviations from its price level target becomes an automatic stabiliser for the real economy, provided that the short-term link between the output gap and inflation (the short-term Phillips curve) is sufficiently strong and predictable. A supply shock, however, would increase production volatility. In a recession, if the price index were to fall below its target path, the price level target would lead to a stronger easing of monetary policy than would be seen with an inflation target.

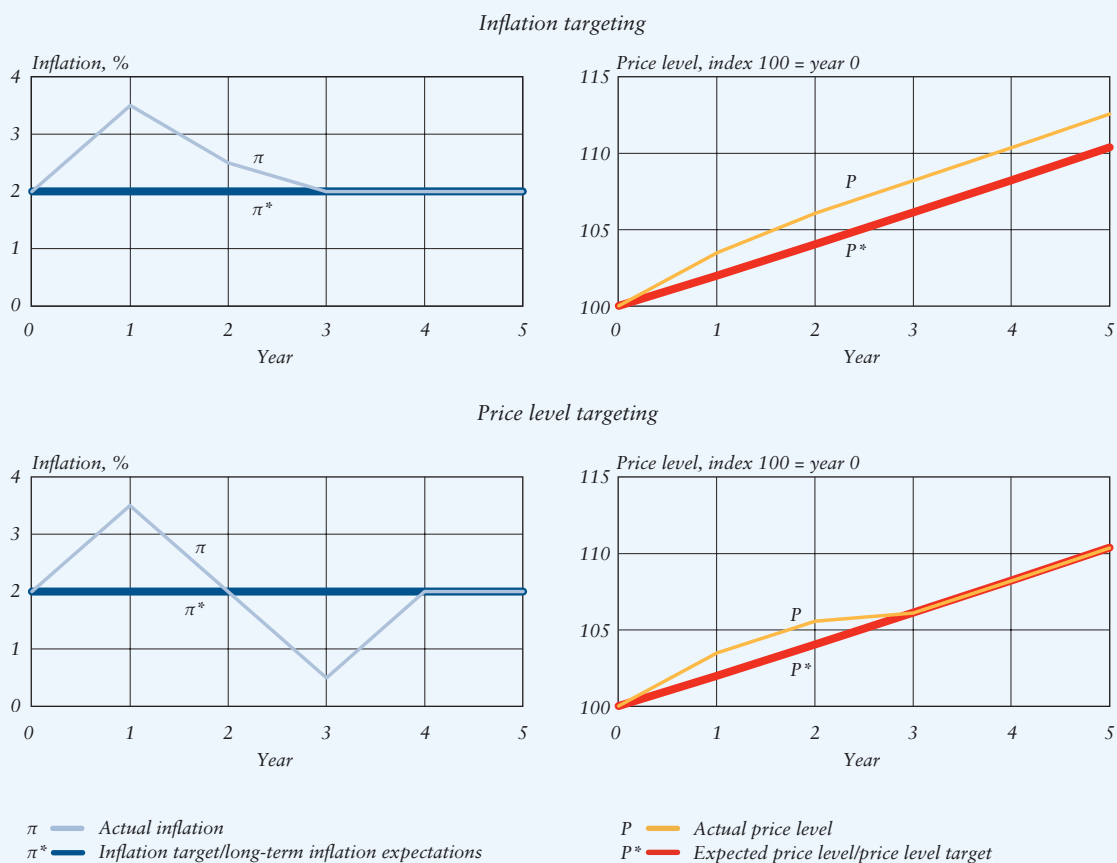
Differences between price level targeting and inflation targeting are illustrated in Chart 1.⁸ The target path for each is implied by a constant annual rate of inflation of 2%. In the first period, inflation is 1.5 percentage points above target. The price level target necessitates tighter monetary policy to bring inflation below trend for the next periods and the price level back on its target path. Correspondingly, if the price index falls below its target path, the central bank eases its monetary policy stance and permits faster inflation to bring the price level back on target. The inflation target does not require such tightening or easing of monetary policy and inflation shocks thus have a lasting impact on the price level. Several inflation shocks in succession can take the price level very far from its 2% trend.

⁸ Kahn (2009), p. 39.

One lesson from the financial crisis is that low inflation and stable inflation expectations are no guarantee of financial stability.

Chart 1.

A comparison of inflation targeting and price level targeting



Source: Kahn (2009).

Comparisons between the two strategies need to take into account 1) whether monetary policy is credible and 2) to what extent expectations are forward-looking. If economic policy-makers can rely on the central bank to always bring the price level back to its target path, this will stabilise medium-term inflation expectations and reduce short-term volatility in both inflation and the real economy. If, however, confidence in the central

bank's ability to stabilise the price level on its target path is lacking, inflation expectations do not stabilise, deviations from the target path can grow large and the central bank's attempts to bring the price level back to its target path can have significant economic costs.

A common conclusion in the theoretical literature on monetary policy is that the benefits of price level targeting, as opposed to flexible inflation targeting, are the greatest

when inflation dynamics in an economy reflect economic policymakers' expectations of future cost developments and past inflation has a very limited impact on expectations. If the price level target acts as a stable nominal anchor for policymakers' inflation expectations, in an environment where monetary policy is based on the central bank's commitment to the stated target, price level targeting produces better results than inflation targeting. Conversely, if inflation expectations are a mix of forward-looking and backward-looking expectations, price level targeting does not necessarily produce superior results.

Recent literature also suggests an alternative that combines price level and inflation targeting as objectives of monetary policy.⁹ When minimising fluctuations in the price level is important for the central bank and inflation expectations reflect both past and future economic developments, optimal interest rate policy can be derived as the weighted average of appropriate monetary policy stances with price level targeting and inflation targeting.¹⁰

Price level targeting may have advantages over inflation targeting, but there is minimal evidence on the magnitude of the benefits. The Bank of Canada has had a dedicated research programme for some years now, but the results do not indicate significant benefits.

The financial crisis has also revived the argument that price level targeting would be practical when short-term interest rates are close to zero. This is

based on the demand-stabilising properties of price level targeting, where real interest rates rise and fall with the price level moving above and below its target path. Confidence in the price level target would thus allow negative real interest rate expectations with nominal policy rates at the zero lower bound.¹¹ Communicating the monetary policy stance would be a major challenge, as such a strategy would be new to both central banks and economic policymakers.

Nominal income targeting

The idea of a nominal income target for monetary policy was introduced into the discussion on monetary policy in late 2012 by the Governor of the Bank of England, Mark Carney, then Governor of the Bank of Canada. He has proposed a number of ways to improve the effectiveness of monetary policy in a zero interest rate environment. Carney also brought up nominal income targeting in this context.¹² Nominal income targeting means that, instead of stable inflation, the central bank is aiming at stable nominal GDP growth over the long term.

Nominal income targeting is not a novel idea. There has been extensive academic discussion on monetary policy rules and objectives, and several well-known economists have proposed giving monetary policy a nominal income target. One of the first was a British economist James Meade, who was awarded the Nobel prize in

Nominal income targeting implies keeping nominal GDP growth stable over the long term.

⁹ Cecchetti & Kim (2004).

¹⁰ Côté (2007).

¹¹ Fischer (1994) and Mishkin (2011).

¹² Carney (2012b).

economics in 1977.¹³ He advocated nominal income targeting because it would allow inflation to be temporarily above target level in an environment of slow real GDP growth. It would thus allow greater flexibility than pure inflation targeting.

There is one important difference between Carney's thinking and the earlier academic literature. Meade and other academic authors typically considered a stable growth rate of nominal income to be the objective of monetary policy, whereas Carney was proposing that the objective should be derived from a target path for nominal income.¹⁴ The differences are similar to those between inflation targeting and price level targeting. Carney suggested setting a target path for the level of nominal income and smoothing any deviations afterwards to keep nominal income around its target path over the long term.

At its best, monetary policy should be effective irrespective of the economic situation or uncertainties about the functioning of the economy. A key problem would seem to be the uncertainty relating to measurement of the output gap.¹⁵ Nominal income targeting would not require data on price and output dynamics nor on the output gap. Nonetheless, model simulations have shown that monetary policy rules aiming at stabilising

nominal output growth do not function very well under model uncertainty and measurement bias.¹⁶

However, such criticism is not fully applicable, if the selected nominal income target is a level and not a growth rate. As price level targeting differs from inflation targeting, so nominal income level targeting differs from growth targeting. A level target makes monetary policy dependent on past developments. Past deviations from the target level need to be corrected afterwards by deviating from the target path in the opposite direction.

A central bank with a nominal income level target will seek a monetary policy stance that will keep the level of nominal GDP close to a predefined path. If, for example, the desired inflation rate were 2% and potential output growth were estimated at 2–3%, the central bank should set a nominal income level target path with a growth rate of 4–5%. If the nominal income level is expected to be high (above the target path), the central bank should tighten its policy stance. If nominal income is low (below the target path), the central bank eases its monetary policy to bring nominal income back on the target path over the coming years. Stable nominal income may also contribute to the debt sustainability of economic agents (incl. sovereigns) by limiting the increase in the real debt burden in the recessions. During the sovereign debt crisis, this has been one of the main arguments for nominal income targeting.

¹³ Other early proponents of nominal income targeting include Tobin (1980) and Britten (1981). Research results backing nominal income targeting have also been published by Bean (1983), Gordon (1985), McCallum (1997,1998), Hall & Mankiw (1994), Feldstein & Stock (1994) and Trehan (1999).

¹⁴ Hall & Mankiw (1994) also mentions a nominal income level target.

¹⁵ The issues are prominently flagged by McCallum (1998), Orphanides (1999) and Trehan (1999).

¹⁶ Rudebusch (2002).

In practice, inflation could temporarily deviate greatly from the desired average rate of 2%. It is feared, though, that this could impair the central bank's commitment to the nominal income target and, in a worst-case scenario, lead to a situation where long-term inflation expectations are no longer anchored in line with the objective. Nominal income targeting would also require data on long term trend economic growth. It, too, is therefore prone to uncertainty.

Several economists have pointed out further problems with nominal income targeting. For example, some suggest that the public would not be able to understand the difference between nominal and real output. In addition, national income statistics are quarterly and only become available with a time-lag.

Zero lower bound and non-standard monetary policy measures

In the current prolonged financial crisis, the euro area, the United States and the United Kingdom have all reached a point where policy rates and the lowest market rates are both close to zero. Inflation is low and expected to remain so. At the same time, total output is less than potential output. Under these conditions, a central bank with an inflation target should, in principle, continue with easing. According to the Taylor rule, interest rates should be negative. With traditional monetary policy, this is impossible. This is known as the zero lower bound problem.

Economic policy, again in principle, has various options open to it

in this situation, too. The most obvious course of action is fiscal policy easing, but even that may not produce higher economic activity under all circumstances. Moreover, fiscal policy easing leads to higher budgetary deficits and rising public debt. If indebtedness is already high, confidence in the sovereign's solvency may suffer, rendering fiscal policy easing ineffective.

Conventional monetary policy is generally understood to mean interest rate policy. With policy rates close to zero, central banks have had to resort to non-standard monetary policy measures. Japan already had experience of quantitative easing of monetary policy in the late 1990s. In Japan, quantitative easing meant large-scale asset purchases by the central bank. Most of these assets were sovereign bonds. In recent years, the Fed and the Bank of England have also resorted to similar quantitative easing. Asset purchases have caused an expansion of the central banks' balance sheets, and the amount of excess liquidity (central bank money) in the banking system has also grown (see Chart 2).¹⁷

In the case of the European Central Bank, non-standard monetary policy measures have meant increased lending to the banking system. The Eurosystem balance sheet has expanded, banks are holding more excess liquidity and the shortest money-market rates have even fallen below the policy rate, close to zero.

¹⁷ Other non-standard monetary policy measures include credit easing and operation twist. In credit easing, the focus is on key borrower groups, with the central bank eg selling sovereign bonds and buying corporate debt instruments. Operation twist impacts on the yield curve, with the central bank selling short-term sovereign bonds and buying long-term sovereign bonds.

Forward guidance can help calm market expectations of monetary policy tightening.

Non-standard monetary policy measures, together with the zero lower bound, and the expansion of central bank balance sheets have created a new situation from a monetary policy point of view. There is little empirical evidence on the impact of such measures, and the results have been equivocal.¹⁸ Central bank actions, monetary policy strategies and changes in tactics have therefore been the subject of much attention and also concern.

It is clear that non-standard monetary policy has adverse side-effects and significant costs. Zero interest rates can mask the need to repair banks' balance sheets, and they can delay structural adjustment. They can distort pricing in the market and make it increasingly difficult to tighten monetary policy in the future.

¹⁸ Woodford (2012).

The macroeconomic effects of quantitative easing are uncertain and coincidental. The impact of credit easing is negligible without a simultaneous quickening of loan demand from non-financial corporations and households.

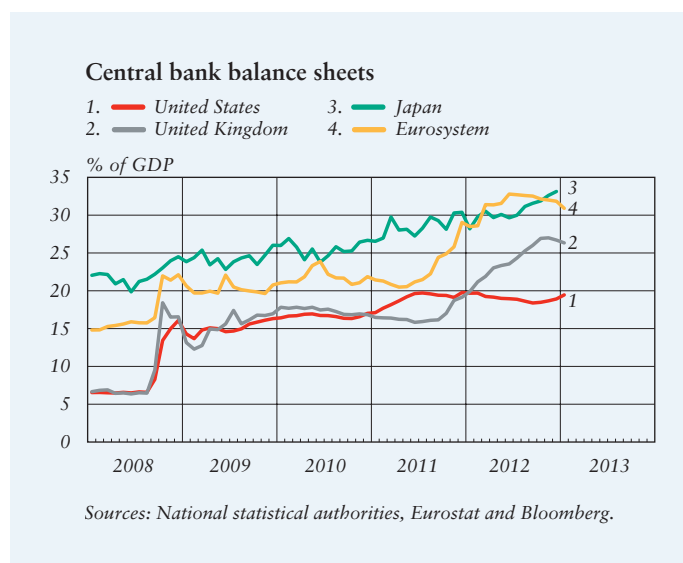
Forward guidance

Communication has become a key field in monetary policy.¹⁹ Simply committing to a certain objective and following clear rules is not enough. A central bank needs to be credible, and to be credible, it must be transparent. By taking care how it makes the background to its decisions public, the central bank can guide market expectations and enhance the effectiveness of its monetary policy decisions. By explaining its aims, it can have a direct impact on market rates and reduce uncertainty about future monetary policy.

It is important to differentiate between communication and commitment. When members of the Governing Council of the European Central Bank are asked about future monetary policy, they repeatedly emphasise that they never pre-commit with regard to future decisions. The message is that in its decision-making, the Governing Council takes into account all the latest information on economic developments and the outlook for inflation. The Governing Council has consistently sought to keep the public informed about the analyses underlying its decisions. This style of

¹⁹ Blinder et al. (2008), Garney (2012b).

Chart 2.



communication speaks of future monetary policy depending on a changing economic outlook.

When a central bank is transparent and gives information about its future policy, it is making a conditional commitment. The central bank can, for example, make public its economic forecast anticipating higher inflation. This acts as a message that monetary policy will eventually be tightened. Some central banks, like Sveriges Riksbank and Norges Bank, publish a projected path of the policy rate together with their forecast to show how the anticipated inflation rate can be brought in line with their objective.²⁰ The published interest rate path is optimised for achieving the central bank's objectives, in the light of available information. If new shocks to the economy have an impact on the outlook for inflation or monetary policy transmission, the central bank publishes a new policy assessment.

The financial crisis and the emergence of the zero lower bound as a serious concern have paved the way for a new kind of forward-looking communication, known as forward guidance. Forward guidance has been used to calm recurrent market expectations about monetary policy tightening.²¹ It can also be used to communicate that the central bank is prepared to tolerate higher inflation (above target) in the

short term. Such a message can bring about a change in market sentiment as regards monetary policy and bring down real interest rate expectations. This is one possible way to ease monetary policy under the zero lower bound without quantitative measures that would cause an expansion of central bank balance sheets.

In December 2012, the Fed clarified its forward guidance on monetary policy. Where it earlier announced that interest rates would remain low for a considerable period of time, provided that economic developments remained in line with expectations, the Fed now made interest rate policy more explicitly conditional on the state of the national economy. More specifically, the Fed announced that it expected to keep its policy rates close to zero at least as long as the unemployment rate remained above 6.5% and inflation was projected to be no more than half a percentage point above its 2% target rate. As a third condition, longer-term inflation expectations had to continue to be well anchored in line with the 2% inflation target. With its announcement, the Fed gave forward guidance that policy rates would not be changed as long as these conditions prevailed. The Fed's communication reflects willingness to commit more strongly to a highly accommodative stance as well as the hope that communicating this will reduce uncertainty with regard to future interest rate developments. The clarification is tactical and does not imply a change to the Fed's longer-term inflation target of 2%.

The zero lower bound introduced forward guidance into monetary policy frameworks.

²⁰ Rosenberg (2007), Ingves (2011) and Bernhardsen & Kloster (2002).

²¹ The United States resorted to this measure already in the early 2000s. Starting in August 2003, the Fed repeatedly announced that its monetary policy would continue to provide support for demand for a 'considerable period' (see Bernanke, 2010).

Discussion on monetary policy objectives will continue

This article describes monetary policy during the financial crisis and the recent discussion on monetary policy objectives, where new directions have been sought by critically reviewing policy principles and the measures taken. Price stability is going to remain the primary objective of monetary policy, but in the future monetary policy needs to watch the developments in the rest of the economy more closely.

Communication has become a key activity in conducting monetary policy. By explaining its aims, a central bank can have a direct impact on market interest rates and reduce uncertainty about future monetary policy. In particular, the zero lower bound has made forward guidance a part of monetary policy frameworks, allowing central banks to create expectations about monetary policy remaining accommodative. Forward guidance can also be used to signal that the central bank is prepared to temporarily accept inflation rates above its target rate.

Recently it has been proposed to define target paths for either the price level or nominal GDP as an alternative to flexible inflation targeting. In both cases, monetary policy would seek to correct past deviations from the target path. With an inflation target, there is no intention to correct for past inflation or nominal income shocks, which makes future price levels less predictable. However, both alternatives present significant practical problems, which makes it unlikely that flexible inflation targeting will be sidelined as a

monetary policy strategy in the foreseeable future.

The current interest in price level and nominal income targeting is partly due to the financial crisis. A lively discussion on monetary policy objectives is ongoing, and there is a lot of research into the topic. This is a discussion where active participation by central banks is desirable.

Keywords: monetary policy, financial crisis, inflation targeting, price level targeting, nominal income targeting

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