## Are the macroeconomic forecasts of the central banks better than those of private agents?

By Paul Hubert

Private expectations — about inflation, growth and interest rates — are a critical component of most modern macroeconomic models, as they determine the current and future realizations of these very variables. Monetary policy has been shaped more and more by the incorporation of these expectations in central bankers' calculations and the influence they have on private expectations through interest rate decisions and the way these are communicated. The establishment by the central banks of a forward-looking policy orientation, called "forward guidance", has further reinforced the importance of central bank macroeconomic forecasts as a tool of monetary policy for influencing private expectations.

A recent article in the <u>Revue de l'OFCE (no. 137 – 2014)</u> evaluates the forecasting performance of the US Federal Reserve relative to that of private agents. This empirical review of the existing literature confirms that the Fed performs better than private agents in forecasting inflation, but not on GDP growth. Furthermore, the Fed does even better over longer forecast horizons. Despite this, its superiority seems to have been declining in recent times, though it's still significant. This article highlights the potential reasons for the Fed's superior performance, and suggests that this could stem from better information about the shocks hitting the economy rather than from a better model of the economy. The publication of these macroeconomic forecasts therefore helps to disseminate information among economic

agents and boosts the effectiveness of monetary policy by allowing private agents to better foresee trends and possible developments.

## Central banks and public debt: dangerous liaisons?

By Christophe Blot

Since 2008, monetary policy has been in the forefront of efforts to preserve financial stability and stem the economic crisis. Though the Great Recession was not avoided, the lessons of the crisis of the 1930s were learned. The central banks quickly cut short-term interest rates and have kept them at a level close to zero, while developing new monetary policy instruments. These so-called unconventional measures led to an increase in the size of balance sheets, which exceed 20% of GDP in the United States, the United Kingdom and the euro zone and 45% in Japan. Among the range of measures employed was the central banks' purchase of public debt. The goal was to lower long-term interest rates, either by signalling that monetary policy will remain expansionary for an extended period, or by modifying the composition of the asset portfolios held by private agents. However, the Federal Reserve recently announced that it would gradually reduce its interventions (<u>see here</u>), which could cause a rapid rise in interest rates like that seen in May 2013 (Figure 1) upon the previous announcement of this type. In a context of high public debt, interest rate dynamics are crucial. The central banks need to take into account the enhanced interaction between monetary

and fiscal policy by coordinating their decisions with those taken  $\square\square$ by governments.

In normal times [1], monetary and fiscal policy pursue common goals, foremost among them macroeconomic stability. There are therefore interactions between the decisions taken by the two authorities. A tightening of monetary policy via an increase in interest rates could for instance counteract a fiscal expansion, and vice versa. It is thus necessary to coordinate economic policy in order to ensure the best macroeconomic balance. The implementation of unconventional monetary policy measures enhances these interactions. The adoption of unconventional measures has led central banks to buy government debt, to such an extent that, with the exception of the ECB, these banks hold a significant portion of the outstanding debt (Figure 2). In doing this, their operations are interfering with the management of debt, which is usually vested in the Treasury. The link between monetary policy and debt management is not new, though it receded as central banks became independent institutions with a primary objective of price stability, which they seek to achieve exclusively by changing the key interest rate. Goodhart [2] (2010) clarifies that this role was historically devolved on Nevertheless, the objectives of the central bank and of the agency responsible for issuing public debt contradictory (Blommestein and Turner [3], 2012), as the Treasury seeks to minimize the cost of debt service, regardless of the macroeconomic impact of its decisions. Two additional interactions can emerge. On the one hand, the government may partially counteract the central bank's actions on long-term rates by seeking to profit from their decline through additional issues on the maturities targeted by monetary transactions. The excess demand is then partially absorbed by an additional supply for a given maturity. This is what has happened in the United States, as the average maturity of the debt rose from 48.5 months in October 2008 to 64 months in May 2012. Recent work by Chadha, Turner and

Zampolli [4] (2013) suggests that this policy of managing the maturity of the public debt supply has a significant impact on interest rates. The minutes of the US Treasury meeting on 2 November 2010 illustrate the potential conflict between objectives: "It was pointed out by members of the Committee that the Fed and the Treasury are independent institutions, with two different mandates that might sometimes appear to be in conflict. Members agreed that Treasury should adhere to its mandate of assuring the lowest cost of borrowing .... A couple [of] members noted that the Fed was essentially a 'large investor' in Treasuries and that the Fed's behavior was probably transitory. As a result, Treasury should not modify its regular and predictable issuance paradigm to accommodate a single large investor."

On the other hand, the reduction in the portfolio of government securities held by the central bank should lead to higher long-term rates. This is in any case what is suggested by some of the recent literature on the impact of unconventional monetary policies. The dynamics of bond yields observed in May 2013 (Figure 1), the first time that the markets anticipated <a>[5]</a> a steady decline in purchases by the Federal Reserve, shows that the increase may be rapid and cause high volatility on the financial markets. The explanation for this increase may be related to the end of or the unwinding of arbitrage operations carried out ∏∏by investors who took advantage of low long-term interest rates in the industrialized countries in order to take on debt and seek more profitable investments in other markets, in particular the emerging markets. The consequences of such a scenario must be taken into account by the central banks. If the conduct of monetary policy involves making fewer central bank interventions, then the impact on debt service of this pull-back needs to be factored in. Despite the process of public debt reduction, government financing needs will stay high, and additional refinancing costs due to higher interest rates could lead States to strengthen fiscal consolidation,

which would have adverse effects on economic activity. Conversely, the maintenance of low interest rates could greatly contribute to facilitating fiscal adjustment by allowing low-cost refinancing and by giving a stimulus to the economy, thereby reducing the recessionary impact of the fiscal adjustment.

Due to the nature of these interactions, to a macroeconomic context marked by a high level of public debt, and to the risk of financial instability, it is essential to coordinate monetary and fiscal policy. This necessity is illustrated perfectly in the case of the United States in an observation by James Tobin quoted by Turner[6] (2011): "The Federal Reserve cannot make rational decisions of monetary policy without knowing what kind of debt the Treasury intends to issue. The Treasury cannot rationally determine the maturity structure of the interest-bearing debt without knowing how much debt the Federal Reserve intends to monetize."

In Europe's case, this seems to be a second-order question, since the ECB has a small portfolio of assets (Figure 2). While taking note that this portfolio is concentrated on bonds issued by certain countries (Italian, Spanish, Portuguese, Greek and Irish), whose public debt represents 42% of euro zone debt, the outstanding debt held by the ECB comes to 5% when considering only the countries in crisis. It's regrettable that the ECB has not taken a more active monetary policy, which would have made it possible to effect a major uniform reduction in interest rates in all the euro zone countries, which would have helped to reduce the need for fiscal consolidation and mitigate its negative effects.

Figure 1. Interest rates on long-term public debt

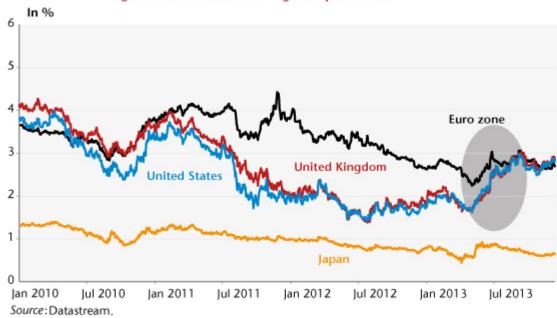
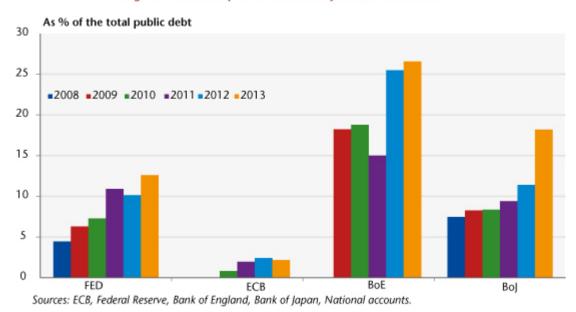


Figure 2. National public debt held by the central banks



[1] Here the expression "in normal times" refers to the fact that the conduct of monetary policy is usually characterized

by decisions taken by the central banks on the key interest rate, which is a short-term rate. During the crisis, the central banks set this key rate at a very low level, near to the zero lower bound, and so turned to new measures to strengthen the expansionary character of monetary policy.

- [2] See "The changing role of central banks", BIS Working Paper no. 326, November.
- [3] See "Interactions between sovereign debt management and monetary policy under fiscal dominance and financial instability", OECD Working Paper no. 3.
- [4] See <u>"The interest rate effects of government debt</u> maturity", BIS Working Paper no. 415, June.
- [5] These expectations were initially fuelled by the improving jobs situation in the United States and then by Ben Bernanke's statement confirming a possible pull-back by the Federal Reserve. These elements are described in more detail by the BIS in its <u>Quarterly Review</u>, September 2013.
- [6] See "Fiscal dominance and the long-term interest rate", 2011, Financial markets group special paper series 199, May.

## Monetary policy: Open-Market Operations or Open-Mouth Operations?

Can the communications of a central banker influence agents' expectations in the same way as they change interest rates? To believe Ben Bernanke, the answer is yes.

In a <u>speech on 18 October 2011</u>, Ben Bernanke, governor of the US central bank, highlighted his interest in finding new tools to help businesses and consumers anticipate the future direction of monetary policy. Thus we learn that the bank's Federal Open Market Committee (<u>FOMC</u>) is exploring ways to make its macroeconomic forecasts more transparent. Indeed, if the publication of the forecasts influences the formation of private expectations about the future, then this could be treated as another tool of monetary policy.

It is worth pointing out that the impact of communicating the central bank's forecasts depends on the bank's credibility. Any impact that the publication of the forecasts has on the economy is neither binding nor mechanical, but rather is channelled through the confidence that businesses and consumers place in the statements of the central bank. So if a statement is credible, then the action announced may not be needed any more or its amplitude may be reduced. The mechanism is straightforward: publishing the forecast changes private expectations, which in turn modifies decision-making and therefore the economic variables. Ben Bernanke's determination to implement what he calls "forward policy guidance" and the emphasis he is giving to the importance of the central bank's forecasts suggest that the Fed is seeking to use its forecasts as another instrument to implement its monetary policy more effectively.

Based on the inflation expectations of private agents collected through quarterly surveys called the Survey of Professional Forecasters (available <a href="here">here</a>), it appears that the FOMC inflation forecasts, published twice yearly since 1979, have a persistent positive effect on private expectations (see the <a href="working document">working document</a>). Expectations rise by 0.7 percentage point when the Fed increases its forecast by one percentage

point. Two interpretations of this effect could be offered: by raising its forecast, the Fed influences expectations and in a certain sense creates 0.7 percentage point of inflation. The effectiveness of such an announcement would therefore be questionable. In contrast, it is conceivable that an increase of 1 percentage point of inflation will occur and that by announcing it, the Fed sends a signal to private agents. They then expect a response from the Fed to counter the increase, and so reduce their expectation of the increase. The Fed's communication would therefore have succeeded in preventing a 0.3 percentage point increase in future inflation, meaning that the announcement has been effective.

This last mechanism, called "Open-Mouth Operations" in an article published in 2000 dealing with the central bank of New Zealand, would therefore act as a complement to the bank's open market operations that are intended to modify the central bank's key rates so as to influence the economy.

In order to shed light on the reasons why private expectations have increased, it would help to characterize the mechanisms underlying the influence of the FOMC forecasts. If the FOMC forecasts are a good leading indicator of the Fed's future key rates, they provide information about future decisions. It appears from this study that an increase in the FOMC forecasts signals that there will be an increase in the Fed's key rates 18 to 24 months later.

Furthermore, the FOMC forecasts do not have the same impact as the bank's key rates on macroeconomic variables, nor do they respond in the same way to macroeconomic shocks: the responses of key rates to macroeconomic shocks are substantial and rapid in comparison with the responses of the forecasts. This suggests that the FOMC forecasts are an a priori instrument intended to implement monetary policy over the long term, whereas the key rates are an a posteriori instrument that responds to shocks to the economy, and thus to the short-term cycle.