Can the central banks influence the expectations of private agents?

By Paul Hubert

Can the forecasts of a central bank influence the expectations of private agents, and if so what are the reasons for this? A few hours after the press conferences of Ben Bernanke and Mario Draghi, here are some explanations.

The awarding of the 2011 Nobel Prize in Economics to Thomas Sargent and Chris Sims for "their empirical research on causal effects in macroeconomics" highlights the role of the expectations of private agents in economic policy decisions. Because the expectations of businesses and households about inflation and growth affect their decisions on investment, consumption, savings, and wage demands, these are at the heart of the interaction between economic policies and their effects.

Since the 1980s, the main instrument of monetary policy has been the interest rate set by the central bank. Changes in this affect the economy and allow the central bank to arbitrate between economic growth and inflation through several channels, and in particular interest rates, credit, asset prices, exchange rates and, finally, expectations. Indeed, in the course of their daily decision-making, businesses and households base themselves on numerous expectations about consumption, investment, future capacity and future wages and prices, etc. These expectations then play a central role in the determination of economic variables. Changes in the central bank rate thus send signals about the future state of the economy and future monetary policy, and alter the expectations formed by private agents.

However, the expectations channel is ambiguous, and changes in the base rates can be understood in different ways: private agents may respond to lower rates by consuming and investing more, which may indicate that growth will be stronger in the future, bolstering their confidence and their willingness to consume and invest. In contrast, the same agents may feel that current growth is lower than expected, prompting the central bank to intervene, which reduces their confidence, and hence their willingness to consume and invest…. Since the 1990s, the central banks have been complementing interest rates with the effect of announcements to clarify their future intentions. Communication seems to have become a tool of monetary policy, and two types can be distinguished. Qualitative communication includes interviews and speeches, while quantitative communication consists of the publication of the central bank's forecasts of inflation and growth.

In a recent working paper, we analyze the effect of the forecasts of inflation and growth published quarterly by the central banks of Canada, Sweden, the UK, Japan and Switzerland. With the help of surveys conducted by Consensus Forecasts of professional forecasters from financial and non-financial sectors, we show that the inflation forecasts of the central banks of Sweden, the UK and Japan are a significant factor in the inflation forecasts of private agents. In other words, the publication of the central bank inflation forecasts leads to a revision of the forecasts of private agents. It also appears that the opposite is not true: the central bank forecasts do not respond to the forecasts of private agents.

Two factors could explain the central bank's influence: first, the inflation forecasts of the central bank could be higher quality, making it rational for private agents to be influenced by them so as to improve their own forecasts of macroeconomic variables. Second, the inflation expectations of the central bank can influence private agents because they transmit signals, either about future decisions on monetary policy, or about the private information available to the central bank. This type of influence is independent of the forecasting performance of the central bank.

To determine the sources of this influence, we evaluated the relative forecasting performance of the central banks and private agents and tested whether the central bank’s influence on private expectations depends on the quality of its forecasts. Estimates showed that, in our sample of central banks, only the central bank of Sweden produced significant, regular and robust inflation forecasts that were better than those of private agents. We also found that the degree of influence depends on the quality of the inflation forecasts. In other words, the inflation forecast over a short horizon (1 or 2 quarters), which a historical analysis of forecast performance tells us are of low quality, do not influence private agents, whereas those of higher quality do influence them. Furthermore, the longer-term inflation forecasts of Sweden’s central bank managed to influence private expectations even when their quality was low, and the better the quality, the stronger the influence.

While the central banks in the United Kingdom, Japan and Sweden all succeed in influencing private expectations by publishing their macroeconomic forecasts, it appears that the reasons for this influence differ. The first two use the transmission of signals, while the Swedish central bank uses both possible sources for influencing private expectations: its greater forecasting capability and the sending of signals. The consequence of these results is that the publication by the central bank of its macroeconomic forecasts could facilitate and render more effective the establishment of the desired monetary policy by shaping private expectations. This transmission channel, which is faster because it relies only on the provision of forecasts, could thus allow the central bank to affect the economy without changing its key interest rate, in practice making it an additional policy instrument.