

# FRBSF ECONOMIC LETTER

Number 2008-01, January 18, 2008

## Publishing FOMC Economic Forecasts

Given the time lag between a monetary policy action and its effect on the economy, the importance of considering economic forecasts in the conduct of policy has long been acknowledged. Still, it is only over the past decade or so that the publication of central bank economic forecasts has been widely recognized as a potentially useful tool for monetary policy communication. As a result, many central banks have begun to express their views about the likely future path of the economy more openly (in line with a general trend toward greater central bank transparency). Obvious examples include inflation-targeting central banks, which highlight their public inflation forecasts (Rudebusch and Svensson 1999), but non-inflation-targeting central banks have also followed suit. Notably, last November, the Federal Open Market Committee (FOMC), which sets U.S. monetary policy, announced new procedures for publishing expanded and more frequent FOMC economic forecasts. This *Economic Letter* describes this new communications initiative.

### Enhanced FOMC projections

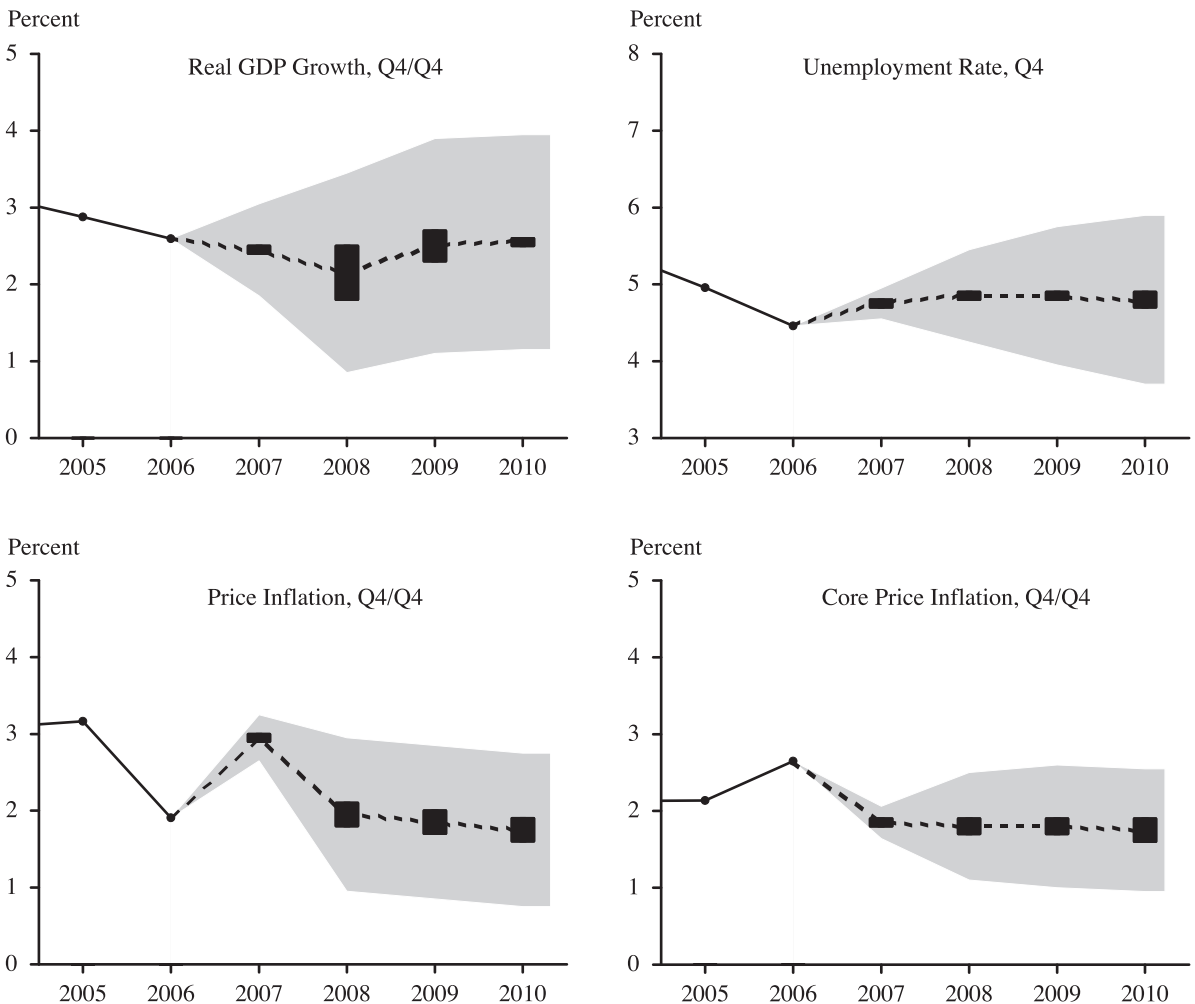
In response to a Congressional requirement to report on “prospects for the future,” the Federal Reserve has published economic projections for almost 30 years. Specifically, it has published the ranges and central tendencies of the output growth, unemployment, and inflation forecasts provided by the participants in FOMC discussions; the FOMC participants, when fully staffed, comprise the seven Federal Reserve Board Governors and the twelve Federal Reserve Bank Presidents. Late last year, the FOMC introduced six enhancements to the publication of these economic projections. First, in order to ensure more up-to-date information, the projections are now issued four times a year rather than just twice a year as in the past. Second, to provide a better indication of where policymakers think the economy is heading over the long run, the forecast horizon now extends to around three years—about a year longer than before. Third, to provide a more complete picture of the inflation outlook, the forecast covers not only core price inflation (which excludes food and energy prices), but also overall inflation. Fourth, to elucidate fully the factors underlying the forecast numbers, a more detailed discussion of the key influences shaping the FOMC outlook is provided. Fifth, that forecast discussion also includes the FOMC participants’ qualitative assessments of the amount

of uncertainty and the balance of that uncertainty in the economic outlook. Finally, the dispersion of forecasts among the FOMC participants is described in more detail.

The latest enhanced FOMC economic projections, which were collected at the time of the October 30–31, 2007, FOMC meeting and were released with the minutes of that meeting on November 20, are illustrated in Figure 1. The four panels display the Q4-to-Q4 percent changes in real output (measured by real GDP), the Q4-to-Q4 percent changes in overall and core prices (measured by the price index for personal consumption expenditures), and the Q4 level of the unemployment rate. The bars represent the projections’ central tendencies, which are defined as the range of the participants’ projections in each year, after trimming off the three highest and three lowest forecasts. The dashed lines connect the midpoints of these central tendencies, while the solid lines connect historical data. (These lines are included as visual aids and do not represent quarterly data points.) Although Figure 1 suggests that the four years from 2007 to 2010 were being forecast, in fact, much of 2007 was history at the time these projections were made, so the effective forecast horizon—from the third quarter of 2007 to fourth quarter of 2010—was about 3¼ years.

The individual FOMC projections represent each participant’s views about the most likely, or modal, future outcome, conditioned on his or her assessment of “appropriate monetary policy,” which is defined as the future interest rate path that best satisfies that participant’s interpretation of the Federal Reserve’s dual objectives of maximum employment and price stability. Of course, the future is highly uncertain, and in setting monetary policy, a central banker must also consider the likelihoods of a large variety of alternative possible outcomes. To help calibrate this predictive distribution, the shaded regions give an illustrative measure of historical forecast uncertainty around the central tendency midpoints of the projections. Specifically, if forecast accuracy going forward is similar to the accuracy of forecasts made during the past 20 years, then there is about a 70% chance that future outcomes would fall in the shaded regions (see Reifschneider and Tulip 2007). Of course, as noted above, FOMC participants may view the uncertainty attached to

**Figure 1**  
**October 2007 FOMC projections: Central tendencies with historical 70% confidence regions**



Note: The bars show the central tendencies of FOMC participants' projections, which are defined as the range of projections excluding the three highest and three lowest projections. The shaded 70% confidence regions, which are based on historical forecast errors, are illustrative and do not necessarily match participants' views of uncertainty. The lines and shaded regions between the data points are included as visual aids and do not represent additional quarterly data points.

their current forecasts to be greater or less than this historical uncertainty. In addition, although the forecast errors historically have been fairly evenly split between overprediction and underprediction—as illustrated by the symmetry of the shaded regions—the FOMC participants may view the uncertainty attached to their current modal forecasts as potentially skewed to the upside or downside, and such asymmetric forecast probability assessments would be conveyed in the accompanying written description. (These probability assessments are related to the risk assessments that are included in post-FOMC meeting statements, which are detailed in Rudebusch and Williams 2006; however, the statement assessments arguably may at times take into account the potential economic costs associated with various outcomes as well as their probabilities.)

### The information conveyed by public projections

As noted by Chairman Bernanke (2007), publishing the FOMC's views about where the economy is headed can provide a variety of benefits. At a general level, public FOMC forecasts, like other types of central bank transparency, can help the public and the Congress evaluate monetary policymakers and hence can foster greater accountability. The public also can give useful feedback to the FOMC about the economic assessments and judgments underlying the projections. Moreover, communicating FOMC economic projections may make monetary policy actions more effective. This is because private agents' decisions about consumption, investment, labor supply, and price-setting appear driven in part by their expectations about the future evolution of the economy. Accordingly, communicating the FOMC's economic

projections may inform the public and help guide their economic decisions. In particular, long-run inflation forecasts may help anchor long-run price expectations. Also, if financial market participants understand the FOMC's expectations, long-term interest rates and other asset prices may respond more appropriately to incoming data in advance of future scheduled policy meetings and hence speed up the transmission of monetary policy actions to the economy.

There are three general types of information that the public may glean from FOMC projections. First, of course, the projections convey the FOMC's assessment of the forces and influences determining the near-term economic outlook. This information may illuminate the current stance of policy and help guide private individuals' economic decisions. Using the October 2007 projection as an example, the central tendency for real output growth in 2008 ranged from 1.8% to 2.5%, which indicates a significant slowing of the economy and, in the accompanying summary description, was largely attributed to financial market turmoil, a weak housing sector, and high crude oil prices. Furthermore, most participants judged that there was greater uncertainty around their growth projections than suggested by the average historical uncertainty and that the current uncertainty was skewed to the downside. However, the slowdown was also foreseen to be short-lived, with economic growth picking up in 2009. Overall inflation, which was boosted in 2007 by higher energy prices, was expected to decline noticeably this year and edge down further thereafter. Still, some participants saw upside risks to their inflation projections coming from higher energy, commodity, and import prices.

The FOMC projections also may convey a second type of information about two important long-run features of the economy: the growth rate of trend or potential output and the equilibrium or natural rate of unemployment. For example, for 2009 and 2010, the participants anticipated that the economy would settle down on a sustainable basis with output growth of about 2½% and an unemployment rate of about 4¾%. These long-range numbers represent very uncertain estimates, but they can, at times, be useful benchmarks for assessing whether the economy is overheating or underperforming and for understanding the appropriate stance of policy.

Third, the projections can help illuminate the FOMC's monetary policy strategies and objectives. The October 2007 projections indicate that the participants did not expect the dual policy objectives to be achieved in the near term given economic conditions. Instead, inflation was projected to edge down over the next few years while output growth slowly returned to

its potential. Furthermore, the forecasts for inflation in 2009 and 2010 suggested that most participants would like inflation to settle down somewhere in the range of 1½% to 2%, which is likely a reasonable range for a price stability goal after taking into account measurement biases in the price data and the costs and benefits of higher or lower inflation. Such communication of the FOMC's goals and strategies by the projections should help anchor the public's expectations of future inflation.

## Conclusion

The publication of enhanced FOMC projections is not a new way to do policy; instead, it is an improved means of communicating that policy. With such forward-looking information available, households and businesses may make better-informed economic decisions if their expectations are in synch with the FOMC's views. Still, the latest enhanced projections are likely just another way station along the path to greater transparency—not the end of the line. For example, one step that a few other central banks have already taken is to publish the underlying interest rate paths together with their economic projections (see Rudebusch and Williams 2006). The pros and cons of revealing these interest rate forecasts will be considered in next week's *Economic Letter* (Rudebusch 2008).

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## References

- Bernanke, Ben S. 2007. "Federal Reserve Communications." Speech at the Cato Institute 25th Annual Monetary Conference, Washington, DC, November 14. <http://www.federalreserve.gov/newsevents/speech/bernanke20071114a.htm>
- Reifschneider, David, and Peter Tulip. 2007. "Gauging the Uncertainty of the Economic Outlook from Historical Forecasting Errors." FEDS Working Paper 2007-60, Board of Governors of the Federal Reserve System. <http://www.federalreserve.gov/pubs/feds/2007/200760/200760pap.pdf>
- Rudebusch, Glenn D. 2008. "Publishing Central Bank Interest Rate Forecasts." *FRBSF Economic Letter* 2008-02 (forthcoming January 25).
- Rudebusch, Glenn D., and Lars E.O. Svensson. 1999. "Policy Rules for Inflation Targeting." In *Monetary Policy Rules*, ed. John B. Taylor, pp. 203–246. Chicago: Chicago University Press.
- Rudebusch, Glenn D., and John C. Williams. 2006. "Revealing the Secrets of the Temple: The Value of Publishing Central Bank Interest Rate Projections." FRBSF Working Paper 2006-31, forthcoming in *Monetary Policy and Asset Prices*, ed. John Campbell. <http://www.frbsf.org/publications/economics/papers/2006/wp06-31bk.pdf>