

John B. Taylor

WHAT THE EUROPEAN CENTRAL BANK NEEDS TO DO

As the European Central Bank begins making decisions, "a clear guideline, or policy rule, would go a long way toward . . . increasing economic stability throughout the globe." John B. Taylor modestly suggests . . . the Taylor Rule.

The European Central Bank (ECB) will soon be making decisions about the short-term interest rate in Europe. A clear guideline, or policy rule, for ECB decisions would go a long way toward reducing uncertainty and increasing economic stability throughout the globe.

But what guideline? What policy rule? Fortunately modern research and practical experience provide some answers. Research on monetary policy rules has mushroomed in the past few years at universities, private financial firms, and central banking institutions such as the Bank for International Settlements. I have been struck by the results of this research, and I believe there are clear implications for the European Central Bank.

This research takes as a given that monetary policy should have a goal, or target, for the rate of inflation. The target may be explicit as in Canada, Sweden, and the United Kingdom or implicit as in Germany, where an inflation target has been communicated successfully via a monetary growth target. Either way, a target helps clarify intentions and convey the idea that there is no long-run trade-off between a low inflation

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goal and unemployment. The target may be a range of inflation rates or an average inflation rate over time.

The actions a central bank should take to keep inflation close to the target can be described by a monetary policy rule, in which the short-term interest rate is adjusted in a systematic way in response to developments in the economy. Most of the recent research on monetary policy rules has focused on whether a rule that I proposed in 1992, as a guideline for the Fed, could be altered to improve economic performance in other situations. What does the rule say? It is remarkably simple, focusing on two factors: inflation and real GDP. The rule recommends that the federal funds rate be raised by 1.5 percentage points for each percentage point increase in inflation. An increase in the interest rate of that magnitude would raise real interest rates and help cool off the economy, thereby reducing inflationary pressures. The rule also recommends reducing the interest rate by 0.5 percentage point for each percentage point decline in real GDP below its potential during a recession. Such a reduction in the interest rate would help mitigate the recession and maintain price stability.

The rule is meant not to be followed mechanically but rather to be used as a guideline. The recommended responses are approximate, and occasional deviations from the rule, such as during the 1987 stock market crisis, are appropriate.

Research based on models of the impact of monetary policy on the economy indicates that this type of rule performs well as a guide to monetary policy decisions. Moreover, it is more robust than more-complex rules with many other factors. Evidently, the two factors (the inflation rate and real GDP) come surprisingly close to summarizing the economic conditions important for monetary policy.

Practical experience bolsters the research. The rule I proposed turns out to have described the actions of the Fed

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remarkably accurately during the past dozen years of low inflation and macroeconomic stability in the United States. Moreover, in periods when the Fed deviated significantly from the rule, economic conditions became much worse. For example, the Fed's typical federal funds rate response to a percentage point increase in inflation was only 0.8 percentage point in the late 1960s and 1970s—about half as large as its response in recent years, 1.5 percentage points. The more aggressive response in the past dozen years explains why inflation has been lower and the overall U.S. economy much more stable than it was during the late 1960s and 1970s. The lesson of the U.S. experience has been reinforced by other countries. Bundesbank interest rate decisions can also be well described by this type of policy rule. And inflation was lower and much more stable in Germany than in countries such as the United Kingdom, where the central bank's interest rate response to inflation was much less aggressive.

Could these promising results be re-created by the European Central Bank? To do so, one would focus on measures of inflation and real GDP for the eleven members of the European Monetary Union (EMU-11) as a whole rather than for a single country. The benchmark policy rule would then direct the European Central Bank to adjust the ECB rate in response to changes in EMU-11 inflation and EMU-11 real GDP by the same amounts as I suggested that the Fed adjust the federal funds rate in response to U.S. inflation and U.S. real GDP.

Will a policy rule that has worked well for the United States work well for Europe? The economy of the European Monetary Union will be roughly the same size as the United States and maintain a similar degree of openness. There is also a useful precedent in that such a policy rule describes the current practice of several central banks in Europe, including the Bundesbank. Frank Smets and others at the Bank for International Settlements find that “in the 1990s the

average short-term interest rate in the EMU-11 area can be described remarkably well by a simple Taylor rule.” They also predict that such a rule will work well, according to their simulations of an econometric model of the EMU-11. I conducted similar simulations of a large open economy model and reached the same conclusions.

Drawing lessons for such a new and crucial policy institution as the ECB from the simulations of econometric models, or from experience with other countries, may seem to require a great amount of hubris. To be sure, there are uncertainties in any new endeavor, but the work to date demonstrates the robustness of policy rules as a guideline for setting the interest rate. It appears that the benchmark rule that I proposed for the Federal Reserve in 1992 would be worth using as a guideline for the ECB. Such a rule would help in communicating future policy intentions to financial markets, politicians, and the public. Perhaps some variant of that policy will prove more appropriate for Europe; perhaps the response parameters should be a bit larger or a bit smaller, but at the least the ECB should keep the interest rate response to inflation above one and the interest rate response to real GDP above zero.

Whether or not the ECB uses such a rule as a guideline, the markets appear to be assuming that the ECB will act as if it does. Already, market analysts are using policy rules like this to forecast what the ECB rate will be next year. If, in fact, such a rule describes the ECB’s interest rate decisions well, then the ECB’s monetary policy will be about as good as it can be. □

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