

ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

The Importance of Structure in Decisionmaking

by Jerry L. Jordan

I learned early in my career as a business economist that perhaps the worst answer an economist can give to a question is, "I don't know." And having spent much of my life in the company of economists, I can honestly say it is a response I've not often heard. I am reminded of the remark Paul Samuelson once made about Milton Friedman: "I wish I was as certain about anything as Milton Friedman is about everything." Perhaps we are, as many believe, a profession that is frequently wrong, though never in doubt.

But the value of an economist's opinion is not in its "correctness" in the sense that we can always, or even often, foresee the chaotic patterns in economic events. Basically, there are two types of criticism directed at business economists and their forecasts. The first is simply that we do not forecast very accurately. The second, which usually comes from the academic community, is that economists should not be expected to forecast at all, since the pursuit of self-interest on the part of millions of people with "rational expectations" implies that no model can profit consistently from the forecasting exercise.

Arguing that economic forecasting *can't* be done is ludicrous. To borrow from Descartes, "I exist, therefore I forecast." No human action, whether economic or otherwise, is taken without at least an implicit assumption about future events. The choices individuals

make involve intertemporal considerations, so an opinion about the future is implied in people's behavior. Often what the forecaster is doing is helping to make explicit, and internally consistent, what otherwise was implicit in the actions of society.

And it seems irrelevant to say that economic forecasting *shouldn't* be done. The single unifying principle in our science is that consumers, motivated by self-interest, generally determine what will be produced, while producers, motivated by profit, endeavor to satisfy that demand. I know of no better determination of value than that dictated by the marketplace. We need only consider the large number of competing forecasts — and the expense of producing them — to appreciate that if forecasters even marginally reduce uncertainty about future economic conditions, the savings to business is potentially huge.

Nevertheless, I believe that economists' ability to predict macroeconomic variables is a poor standard by which to evaluate most economic models, and an even worse standard by which to judge the contribution of business economists. We must not equate our forecasting record with the presumption that economists have in large measure failed to add value to the decisionmaking process.

Should the economics profession be judged on its ability to predict where the economy is headed? In a recent speech, Cleveland Federal Reserve Bank President Jerry L. Jordan answered critics who assert as much, arguing that although economists cannot eliminate the uncertainties of the marketplace, their real contribution lies in providing a proper framework for discussing and evaluating those uncertainties.

What, then, is the value added by the opinions of economists? It is, I believe, our ability to provide a model, or a structure, capable of grasping a complex economic environment.

I use the term structure here in the sense that our judgments are based on a logically consistent framework. But such a framework is not necessarily built around the goal of foretelling the future. Imagine you are at a ball game, and consider this question: Will you be able to see the game better if you're standing? The knee-jerk answer is yes, of course. But this reply obviously lacks the structure of a model. Upon further reflection, we know that our ability to see depends on the combined actions of those around us. If in standing we induce others to do likewise, our view will be obstructed. This is the proper answer, I think, even though it is likely to be a poor forecast of crowd behavior.

■ Forecasting and the Policymaking Process

Ultimately, a model must be judged by its usefulness. And in some cases, usefulness is defined by the ability to predict future events. For example, time-series models, which possess a mathematical structure but are not based on economic theory, have little value other than their ability to forecast. But clearly, there is no such thing as a best model, for "best" must always be defined in terms of the use to which the model is being applied.

We are all familiar with the classic debate between Ptolemy's model of the solar system, which placed the earth at the center, and Copernicus' model, which put the sun there. The Ptolemaic view was based on the moral assertion that the center was the only proper place for the earth to be. Despite this arrangement's glaring inability to conform with the celestial evidence — the model had obvious flaws known to the scientific community — it nevertheless provided reasonably accurate forecasts of the planets' movements and was popularly used.

Fundamental to all economic analysis, then, is the simple question, Why do we want to know? Herein lies an important difference between forecasting in the private versus the public sector.

In the private sector, forecasts are used as devices not only to reduce uncertainty, but to provide a framework for comprehending the risks that business should be aware of and, if desirable, protect against. Unfolding events affect the probabilities of alternative economic states that eventually impact business profitability. As a former business economist for a bank whose goal was to maximize shareholder wealth, I know that a potential tilt in the term structure of interest rates, a shift in loan demand, or a change in the probability of borrower default are contingencies that need to be evaluated and acted upon. A commercial bank cannot put together a profit plan or prepare a budget without assumptions about future interest rates, deposit growth, and numerous other variables. But this is not true for the economic policymaker in the public arena.

Two years ago, Federal Reserve Chairman Alan Greenspan addressed the annual meeting of the National Association of Business Economists on the topic of forecasting. "The policy forecaster," he said, "necessarily focuses on those aspects of the economy that policy most directly influences."¹ So the role of forecasting in the public sector, it would seem, is as a conduit of control.

Regarding the act of forecasting as a control device forces us to identify clearly those variables that are endogenous to the system and those that are exogenous. For the policymaker, that means we must distinguish the outcomes we can predictably influence from those we only wish we could.

We can think of the policy-setting process in three parts: 1) a goal, 2) controllable instruments, and 3) a model linking instruments to the goal. As I review my own experiences with the policymaking process, I recall the 1970s as a time when the Federal Reserve attempted to manage real economic events by judiciously altering the federal funds rate. Stabilizing

short-run fluctuations in the business cycle and maintaining a low unemployment rate are, without question, admirable goals. And I certainly recognize that the Fed has been able to control the federal funds rate when it has chosen to do so (although I have never accepted this instrument as an appropriate indicator of policy).

But like a Copernican in a Ptolemaic world, I believe there are flaws in a model that presumes to link the level of short-run nominal interest rates to a nation's long-run economic prosperity. This Phillips curve model is founded on an empirical observation we know to be inconsistent with fully informed, long-run optimizing behavior.

Nevertheless, analogous to the Ptolemaic view, we might have been able to establish an effective policy on the basis of such a model if it had proved useful for exploiting short-run imperfections in the marketplace. My interpretation of 30 years of short-run policy management based on this approach is that it engendered a legacy of rising inflation and, ultimately, unnecessarily high rates of economic inefficiency. Simply put, the Phillips curve model proved to be unstable when policymakers tried to exploit the economic inefficiencies it implied, eventually contributing to exaggerated business cycles and reduced productivity growth. To rephrase an old expression, in the long run, it made us dead.

The misconceived effort to exploit the Phillips curve played a key role in exposing the importance of the expectations process linking the nominal to the real. Forward-looking expectations have been a valuable extension to both the Phillips curve and general-equilibrium models of the business cycle, leading our profession to reformulate its conception of monetary policy from that of an action at a single point in time to a recognition that there are important feedbacks between monetary policy and market forces.

This has had practical implications for the conduct of monetary policy. Past monetary policy is largely irrelevant except as a guide to predicting future policy. Since it is the future that matters, people will look to the operations, the procedures, the strategies, and the objectives of the Federal Reserve to predict the performance of policy as events unfold.

■ The Importance of Long-Run Objectives in Policymaking

The lessons of the 1970s pointed the way to a new procedure for implementing monetary policy. In its 1980 report to Congress, the Federal Open Market Committee (FOMC) expressly recognized the limits of monetary management, confessing that it is not within the powers of policy to ensure a fully satisfactory economic performance at all times. "Nonetheless," the report states, "the appropriate direction of policy is clear. The greatest contribution the monetary and fiscal authorities can make is to impart a sense of long-range stability in policy and in the economic environment."²

Chief among the Federal Reserve's objectives was the restoration of price stability or, in the words of the FOMC, "wringing inflation out of the economy over time," a goal that is understood to be the exclusive province of the monetary authority.³

The instrument, or means, for achieving price stability was to be adherence to monetary targeting. Such targets have two benefits: They provide a benchmark against which to judge the performance of policy, and they are a clear means of conveying policy intent, both of which seem to be necessary preconditions for imparting a sense of long-run stability.

The framework that connects the monetary instrument to the inflation objective is, of course, the equation of exchange, or an empirical description of that equation, such as the P-Star (P*) model.⁴ Although we may think of P* as a forecasting device, in a strict sense its value to policymakers is as an

indicator of the long-run inflationary consequences of M2 growth. In fact, there may be other models that provide equally accurate or even superior quarterly inflation forecasts. But to the extent that they rely on factors outside the scope of the monetary authority, such as oil prices, their value to monetary decisionmaking is reduced.⁵

This is the structure that has guided monetary policy over much of the post-1979 period, and not coincidentally, I believe, we have achieved much in reducing the inflation trend in this country. But as you are no doubt aware, several recent developments appear to have diminished our ability, if not our resolve, to eliminate inflation. For one, the recession that began in 1990 and our relatively slow economic recovery have diverted attention once again to the performance of real economic variables, such as employment growth. At the same time, the linkage between M2 growth and the Fed's short-run policy target, the federal funds rate, appears to have been altered substantially, at least for the moment.

Some monetarist economists argue that the lackluster economy is compelling evidence that M2 is still a reliable indicator of the thrust of monetary policy and that we must not be so quick to dismiss it. Others, including the Shadow Open Market Committee, argue for caution in interpreting M2's behavior. In their opinion, the monetary stimulus implied by the aggregate's recent sluggishness may be understated because of commercial banks' diminished importance as financial channels. It is necessary in such an uncertain environment to allow more discretion in the implementation of policy. However, it is precisely at times like this that consistent, long-run policy goals are most important, so that the Federal Reserve's ultimate objective is not among the many uncertainties the public must guard against.

■ The Implicit Promises of Policy Behavior

Changes in structure are, of course, inevitable, though it may be years before

a shift is clearly identifiable. We do not now know the significance of either the M2/fed funds rate breakdown or the apparent acceleration in M2 velocity, and we may not know for an indefinite period of time. That is why it is important for policymakers to target long-run outcomes, not short-run instruments.

The long-run objective of monetary policy is still the promotion of economic growth through the elimination of inflation, in the sense that inflation will no longer enter into the economic decisions of households and firms. Current readings from the P* model give me reason to believe that the monetary policy of the past several years is consistent with the ultimate attainment of this goal.

But while I may believe that a disinflation groundwork has been laid, inflation expectations are still an integral part of decisionmaking in the private sector. Household surveys, private forecasts, and the historic steepness of the yield curve all reveal long-run inflation expectations at or above the post-World War II average inflation rate. Unfortunately, over the past several years the public has become conditioned to the idea that policy actions are determined by the current state of the real economy and, in particular, by monthly employment growth. The September 4 cut in the federal funds rate to 3 percent marked the eighth time since December 1990 that the rate was reduced on the same day weak employment data were released—a synchronization that induces financial markets to view the Federal Reserve as taking responsibility for the economy's short-run performance. By appearing to respond to poor economic reports while also ignoring the shortfall of M2 from its explicit target, we risk damaging credibility about our resolve to achieve sustainable economic growth through price stability.

I understand that there are good reasons to be skeptical about the interpretation of slow M2 growth. But above all else, policymakers should endeavor to provide clarity—in a word, structure—to the monetary policy decisionmaking process.

■ Conclusion

Economists have opinions. Whether they are more informed opinions than those of noneconomists depends on their rigorous adherence to a framework of analysis, or to a model. Although we may not be able to reduce all, or perhaps even most, of the uncertainties in the marketplace, economists nevertheless provide a structure for discussing and evaluating the problems we all face. Such frameworks are useful even in their shortcomings by revealing that which we do not yet understand.

As a policymaker whose actions affect the private sector, I believe that structure is necessary not only as a guide to policy decisions, but as a means for transmitting the significance of those decisions to the marketplace. For this reason, it is crucial that policy pre-commit to goals that it can be counted on, and held accountable, to achieve.

In the year of his death, Copernicus wrote:

Finally, we shall place the Sun himself at the center of the Universe. All of this is suggested by the systematic procession of events and the harmony of the whole Universe, if only we face the facts, as they say. "with both eyes open."

For astronomers, this means placing the center of the universe not where they want it to be, but rather where the facts say it must be. For policymakers, it means being careful of what we promise, either by our implied actions or by our explicit neglect.

■ Footnotes

1. See Alan Greenspan, "Economic Forecasting in the Private and Public Sectors," speech presented to the annual meeting of the National Association of Business Economists, Washington D.C., September 24, 1990.
2. See the Federal Open Market Committee's Monetary Policy Report to Congress, March 1980, p. 2.
3. Ibid, p. 3.
4. The equation of exchange, $MV = PQ$, relates the quantity of money (M) to nominal spending (PQ) through the velocity of money (V). P^* is essentially a trend interpretation of this equation.
5. For an overview of the forecasting performance of the P^* model and an example of a commodity-based alternative that produces better near-term forecasts, see Jeffrey J. Hallman and Edward J. Bryden, "Commodity Prices and P-Star," Federal Reserve Bank of Cleveland, *Economic Review*, vol. 28, no. 1 (1992 Quarter 1), pp. 11-17.

President Jordan presented this speech to the Cleveland chapter of the National Association of Business Economists on September 23, 1992.

**Federal Reserve Bank of Cleveland
Research Department
P.O. Box 6387
Cleveland, OH 44101**

Address Correction Requested:
Please send corrected mailing label to the above address.

Material may be reprinted provided that the source is credited. Please send copies of reprinted materials to the editor.

**BULK RATE
U.S. Postage Paid
Cleveland, OH
Permit No. 385**