

Monetary Theory and Central Banking

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It is a privilege to present these comments at a symposium that honors Otmar Issing. I join those who have congratulated him on the guidance and leadership that he gave to the introduction of the euro and its establishment as a stable currency.

I am one of those who was skeptical about a single currency for Europe. I did not oppose the idea. Skepticism concerned the wisdom of eliminating exchange and interest rate changes to adjust differences between countries. The system put too much emphasis on labor and product price adjustment, the principal and practically speaking the only market adjustment left. Along with many others, I argued that the new system would only achieve full employment and price stability if countries substantially modified their costly welfare and regulatory systems. Otmar's rejoinder was that these structural changes had to occur in any case and that removing monetary policy responses would focus attention on the need for structural changes.

Otmar Issing and others at the ECB deserve credit for maintaining price stability despite the slow pace of structural reform and high unemployment rates in the principal member countries. Some reforms have occurred. I believe it remains a matter of judgment whether the euro members will develop an adequate adjustment mechanism.

The topic of this panel is about the relative importance of economic science and art or judgment in monetary policy. In his Stone lecture (Issing, 2005), Otmar Issing explained why both science and judgment are important. More than any top central banker, he actively participated in discussions with academics and tried to apply new analytic developments in his policy work and the work of his research staff. But he recognized, too, that important differences remain between the analytic models developed by researchers and the tools that he used in practice.

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One of the examples that Issing used in his Stone lecture is the measurement of the output gap and normal or full employment output. In the most popular academic models, the output gap has a prominent role. A positive output gap, other things unchanged, calls for a lower interest rate and a more expansive policy. In several countries of the ECB, the size of the output gap reflects the real cost of structural impediments to employment. Despite the almost unabated criticism by politicians in some member countries, the ECB insisted that the output gap and high unemployment were mainly real not monetary problems. It did not accept responsibility for the level of unemployment, but it used this message from theory as a guide to action when the unemployment rate changed; rising unemployment rates called forth policy ease. The size and timing of the policy action relied on judgment.

As Issing has noted repeatedly, in the general equilibrium macro theory that most academics teach and most students learn, money has no role. Inflation comes from the Phillips curve relation when output exceeds the natural rate or NAIRU. Much research shows that this is not a reliable relationship in part because of uncertainty about NAIRU, inability to pin down full employment output with sufficient precision, and difficulty in identifying changes as they occur. As is now well known, Alan Greenspan's judgment identified the productivity increase in the mid 1990s. Alan Blinder showed that econometric estimates do not discover the change for several years. Judgment proved useful to supplement the model.

As I approach the end of my long study of Federal Reserve history, I try to draw some general explanation of the poor policy record of most years from 1913 to 1980 or 1985. The financing of wars, the Great Depression, and the Great Inflation cannot be counted as policy successes. That leaves at most 17 years in the 1920s and from say 1954 to 1964 as years of mostly high employment and low inflation with a few years of recession included. In about three-fourths of the years from 1913 to 1985, either unemployment or inflation was high. In the past 25 years, the United States experienced two of the longest periods of growth with relatively low inflation in its history, punctuated by two mild recessions. In the 1960s and 1970s, most of the world suffered from the Great Inflation, but Germany and Switzerland that gave greatest emphasis, to

sustained money growth avoided the very high inflation rates experienced by other developed countries.

Should improvements in monetary or economic theory get credit for the better policy outcomes? My answer is a qualified yes. For Germany after Bretton Woods collapsed, Issing reminds us that the quantity equation modified by judgment guided the Bundesbank's policy actions. The theory on which they relied was not the dynamic general equilibrium model of the textbooks. It gave a large role to *sustained* money growth. And when Paul Volcker became Federal Reserve chairman, he began to control money and permitted interest rates to increase enough to achieve better control of inflation.

I conclude that the two major sources of mistakes in the history of Federal Reserve policy are applying incorrect theory and yielding to political pressures.

The first of these was acceptance and application of real bills doctrine from the early years through the Great Depression and acceptance of Keynesian theory in the 1960s and 1970s. In the Keynesian era policymakers believed that they should coordinate monetary and fiscal policy. In practice this meant that the Federal Reserve financed more of the government's budget deficit. In the 1960s and 1970s, policymakers and many economists claimed that economic policy could not achieve full employment and price stability without help from wage-price policy, controls or exhortations and threats. This claim disappeared in the 1980s, replaced by the assertion that credible low inflation contributed to real growth and higher employment. And not to be forgotten is the non-vertical Phillips curve that was said to permit a permanent increase in employment in exchange for higher inflation.

Political pressures took several forms. Policy coordination limited central bank independence. The Bundesbank, the Swiss National Bank, and the ECB rejected coordination as did Paul Volcker when he became Federal Reserve chairman in 1979. Despite the largest peacetime budget deficits in U.S. history, monetary growth did not become excessive and large deficits were not followed by high inflation.

The policy or political framework was important also. Until 1979, central bankers in the United States accepted an interpretation of the 1946 Employment Act that gave most importance to avoiding unemployment. In practice, attempts to control inflation

stopped in 1966, 1970, 1974, and 1977 when unemployment rose. Market participants rationally concluded that inflation would not be reduced permanently. And contrary to Phillips curve theory, on average unemployment rates and inflation rose and later fell together. And high among the political failures is Arthur Burns's response to President Nixon's urgings prior to the 1972 election.

Academic economists and central bankers should ask themselves which parts of today's conventional theory are likely to mislead policymakers who apply these models. I agree with Issing's essay that neglect of sustained money growth must be high on the list. In fact, I find it hard to understand why academic economists quickly dismiss the role of money growth but just as quickly accept the Phillips curve as a highly useful tool. Successful central bankers like Issing or Greenspan are more skeptical about the usefulness of the Phillips curve as a theory of inflation.

There is simply no evidence that a single short term interest rate contains all the information about asset price changes relevant for the transmission of monetary impulses. Friedman (1956) included many relative prices in his model and Brunner and I developed more fully the role of asset prices in the transmission of monetary and other impulses. In the monetarist tradition, relative prices of assets are a significant omission from the standard general equilibrium model.

Issing (2005) cites the pervasive uncertainty faced by policymakers and the public. He recognizes that a major source of the uncertainty is the absence of information about the duration of shocks to the system. Will an increase in oil prices continue at the same rate, at a higher rate, or will oil prices return to their previous level? Is the shock transitory, a permanent shock to the level, or a persistent shock to the rate of change of oil prices? How long will it continue? Correct quick answers are not available. Judgment is needed. If markets and policymakers disagree, relative prices of assets and output will reflect the disagreement. Brunner, Cukierman, and Meltzer (1980) showed that inability to distinguish between permanent and transitory shocks becomes a source of stagflation even with rational expectations.

One further example is the use of the same term---inflation---to refer to both the persistent or maintained rate of price change and the change in price level caused by one-time shocks. Proper policy requires that a central bank faced with a one-time shock such

as an increase in the price of oil recognize that it has two different problems. First, it should monitor expectations of long-or medium-term inflation to be confident that the public sees the shock as a one-time event that will pass through. Second, it must recognize and explain that the temporary rise in reported inflation is the means by which returns to workers and owners of capital adjust downwards as required by the transfer to owners of oil wells. Suppressing these changes by failing to recognize that they differ from maintained inflation does not eliminate the transfer. It forces reductions in wage change and asset prices, most likely a more costly way.

The basic problem in this example is to decide whether monetary policy stabilizes the price level or the maintained rate of price change. The former requires a policy of rolling back the effects on the price level. The latter allows the price level to act like a random walk around a non-inflationary rate of price change.

Economic theory does not tell us which is the right thing to do. Many central banks do not even recognize that there is a choice. And the now standard general equilibrium model can not recognize the problem because it treats all price changes as equivalent. To a monetarist, Friedman's statement that inflation is always a monetary phenomenon does not mean that all price level changes are evidence of inflation.

Otmar Issing did not succumb to the academician's confidence in a model. In his lecture, he cites the unification of Germany and the start of the common European monetary policy as examples where judgment became a critical supplement to the model in dealing with massive uncertainty. He could have added banking crises and more generally, lender of last resort functions.

Many years ago, Karl Brunner and I complained about the large gap between monetary theory and monetary policymaking. I believe the current gap is smaller today both because many academicians have become more aware of central bankers problems and because central bankers like Ottmar Issing tried hard to use the insights from the model to guide their actions. But the gap remains, and good judgment remains important.

References

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