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## **Challenges to Monetary Policy**

Two challenges to monetary policy are explored by the authors in this Economic Review. In the first article, Joseph Bisignano tests for international linkages among interest rates that may affect the ability of central banks to pursue domestic policies independent of those abroad. The conventional view in economics has been that floating exchange rates allow countries to insulate their economies from foreign disturbances, but Bisignano points out that since 1979 there has been increased financial interdependence among countries, creating difficult policy choices given the strong performance of the U.S. dollar. In the second article, John Judd examines the extent to which recent domestic deregulation of interest rates on bank and thrift deposits has impaired the usefulness of M1 as the Federal Reserve's primary monetary policy guide, as well as the likely impact of future deregulation on that aggregate.

Bisignano focuses on the significant increase in U.S. interest rates that occurred in late 1979 and the difficult set of policy choices it posed for foreign policy makers. Foreign central banks faced the dilemma of whether to allow this shock to be transmitted to interest rates in their own country, or to allow their exchange rates to depreciate to insulate their domestic financial markets. The choice of higher interest rates would have meant reduced economic activity at home, while a depreciating currency implied higher domestic inflation. Which tradeoff was perceived as the more palatable therefore would condition the extent to which foreign central banks would allow the shock of higher interest rates in the U.S. to be transmitted to their domestic economies.

The author examines the relationships between U.S. and German interest rates, and between U.S. and Canadian interest rates, for evidence of how much the German and Canadian central banks accommodated their policies to developments in the U.S. rather than pursued independent policies. Specifically, he looks at the extent to which unanti-

cipated changes in U.S. rates provide information about the behavior of long-term interest rates in Germany and Canada.

Bisignano uses the expectations hypothesis of the term structure of interest rates, and asset market exchange rate determination, to argue that the rate on a long-term German government bond, for example, depends on U.S. short-term rates and expectations about the dollar-mark exchange rate. These expectations in turn are conditioned by perceptions about how much the Bundesbank would be willing to insulate German interest rates from foreign shocks.

Bisignano finds that after the Federal Reserve's adoption of its new Monetary Control Procedure in October 1979, unanticipated changes in the U.S. 3-month Treasury bill rate enter significantly in regressions explaining movements in market interest rates on German federal government securities of differing maturities ranging from one year to ten years. Interestingly enough, however, they are not significant in regressions for the period 1973–1979.

Thus, after the October-1979 change in Federal Reserve operating policy, expectations in the foreign market apparently were that the German authorities would not allow a long-term depreciation of the mark, preferring to allow interest rates to rise in Germany as they had in the U.S. Bisignano conjectures that these expectations were based on the belief that the Bundesbank was willing to follow the U.S. lead, taken after 1979, to pursue a long-run anti-inflation strategy.

In the case of Canada, Bisignano finds that both before and after October 1979, unanticipated movements in U.S. rates often provide explanatory power for movements in Canadian long-term rates. Thus market perceptions appear to have been that the Bank of Canada attempted to protect the Canadian dollar from U.S. developments and as a result was forced to pass U.S. interest rate charges through to Canadian rates. Canadian and U.S. financial markets, therefore, were linked together and Canadian monetary policy was at least partially subordinated to U.S. policy.

John Judd focuses on the most recent and most far-reaching episode of deposit rate deregulation in his article. Both the Money Market Deposit Account, introduced in late 1982, and the Super-NOW account, introduced in early 1983, are accounts on which depository institutions can pay market rates of interest. The argument frequently has been made that the deregulation they represent fundamentally alters the public's demand for transactions money, potentially ruining M1 as a guide for monetary policy.

Judd categorizes this deregulation argument as having three parts. The first is that deregulation may have induced a flow of savings balances into M1, and compromised its traditional character as primarily a transactions medium. As a result, the demand for M1 may become less stable in the sense that it would be less tightly related to income and prices than before.

The second part of the deregulation argument focuses on the point that presumably the demand for M1 would be less interest-sensitive because flexible rates on deposits could be adjusted to offset changes in market rates. One effect of this would be to change the relationships between money and prices and other economic variables. M1, therefore, would be a more uncertain guide to policy until the new relationships were understood. A less interestsensitive demand also would make the economy more vulnerable to money demand instability, although by the same token, it would insulate the economy better from other shocks.

Finally, Judd notes that a less-interest sensitive M1 demand poses potential problems for short-run control of M1. Thus, relatively precise control might be infeasible because the associated interest rate variability would be too high as well. There is risk that an interest-insensitive money demand would mean that M1 was no longer a leading indicator of policy, further reducing its usefulness as a guide for policy.

Judd points out that theory cannot indicate whether these potential problems actually exist, or, if they do, whether they are important enough to matter. These important issues are empirical ones. Unfortunately, because deregulation is not complete, the evidence accumulated so far cannot be conclusive. Nevertheless, Judd argues that on balance "…substantial evidence…does exist…that use of M1 as an intermediate target has not been ruined by deregulation…"

Judd examines several pieces of evidence to support this conclusion. He begins by noting that the size of the upward shift in M1 demand after deregulation may be an indication of the extent to which it has been 'contaminated' by an inflow of savings balances. He refers to an earlier study of his which showed that episodes of deregulation in the 1970s and in 1981 showed small upward shifts; such findings are consistent with the hypothesis that the mixing of transactions and savings balances in M1 had been slight.

To analyze the November 1982 introduction of Super-NOWs and MMDAs, Judd estimates monthly M1 demand equations for the period up to the period of the change, and uses these regressions to forecast M1 demand during and after the change.

If the demand for M1 had shifted up because of the new accounts, the regressions should underpredict M1 after November 1982. Judd estimates two money-demand regressions: one in which the interest elasticity of money demand is constant and one in which it is allowed to vary positively with interest rates. The variable elasticity regression shows a small over-prediction of M1 after November 1982, which is in the wrong direction if M1 demand had shifted up. The constant elasticity specification does show under-prediction, but the result is too small to be significant. Judd draws two implications: "First, instability in M1 demand does not appear to have significantly distorted monetary policy in 1983. Second...deposit deregulation has not materially changed the transactions nature of M1."

Finally, Judd notes that problems of short-run monetary control posed by an interest-sensitive MI could be less severe than suggested if money plays an important buffer-stock role in the public's portfolios. He argues that evidence from the moneydemand function in the San Francisco Money Market Model is suggestive, at least, that money does play such a role.