NORTH-HOLLAND

Political Pressures and the Choice of the Optimal Monetary Policy Instrument

James P. Cover and David D. VanHoose

This paper extends Cukierman's (1992) model of monetary policy discretion, private information, and credibility to an environment in which the quantity of money is endogenous and in which a monetary authority must choose between bank reserves or an interest rate as its instrument of monetary policy. This model is used to explore the determinants of credibility for the alternative policy instruments and to evaluate the manner in which political pressures on a monetary authority can influence the authority's instrument choice. A key implication of the model is that such political pressures can influence the credibility of monetary policy differentially depending upon the choice of policy instrument, thereby inducing a monetary authority to choose an instrument that otherwise would fail to meet standard Poole (1970) criteria.

Keywords: Optimal monetary policy; Monetary policy instruments; Monetary politics

JEL classification: E52; E58

I. Introduction

Why do nearly all central banks use an interest rate as the monetary policy instrument? According to the instruments-targets literature, a central bank's optimal instrument of monetary policy depends on the magnitudes of macroeconomic parameters and the relative sizes of the variances of structural disturbances. Specifically, since Poole's (1970) original analysis, this literature [e.g., Friedman (1975), McCallum and Hoehn (1983), and Benavie and Froyen (1983)] uniformly concludes that an interest-rate instrument is preferred to a bank-reserve (or monetary-aggregate) instrument if the variance of real expenditure disturbances is sufficiently small relative to the variance of financial-sector disturbances. Nevertheless, central banks in Europe and Asia consistently have used

College of Commerce and Business Administration, University of Alabama, Tuscaloosa, AL.
Address correspondence to: Professor David D. VanHoose, College of Commerce and Business Administration, University of Alabama, Box 870224, Tuscaloosa, AL 35487-0224, USA.

0148-6195/00/$–see front matter
PII S0148-6195(00)00025-4

interest-rate instruments—even during periods in which Poole's original condition probably has not been satisfied. In addition, even though Fair (1984) finds that simulations of Poole's criteria for the late 1970s generally support the use of an interest-rate instrument by the Federal Reserve, in 1979 the Fed switched to a reserve instrument.

Carlstrom and Fuerst (1995) propose a very different explanation that might help to explain the widespread use of an interest rate instrument even under circumstances in which the standard Poole rule is violated. They consider a model in which cash-in-advance constraints and portfolio rigidities produce distortions that can make a competitive equilibrium Pareto inefficient. Pegging the nominal interest rate eliminates these distortions and, therefore, is the optimal monetary policy. The reason is that an interest rate peg permits greater output responses to real shocks, thereby allowing agents greater flexibility to maximize their lifetime utility levels.

This paper extends the literature about the widespread central bank use of an interest-rate instrument by presenting a model that shows that the variability of political pressures—or, more generally, the variability of any factors that influence central bank preferences—can influence instrument choice. In contrast to Carlstrom and Fuerst, the rationale we suggest for why central banks typically use an interest-rate instrument mirrors the traditional Poole approach in which a central bank seeks to *stabilize* inflation and real output in light of *nominal* shocks that have short-term real consequences. Nevertheless, the explanation we propose yields the standard Poole criterion only as a special case that emerges in the absence of variable political pressures. We are able to explain why an interest-rate instrument typically is more widely used when there are variable political pressures, and we can provide a rationale for why a central bank temporarily might switch to a reserve instrument, as the Fed did from 1979 until roughly 1982. Our explanation for these phenomena stems from developments in the recent literature on monetary rules, discretion, and credibility [e.g., Kydland and Prescott (1977), Barro and Gordon (1983a, 1983b), Persson and Tabellini (1990), and Cukierman (1992)]. It also draws on the political-monetary-economy literature as exemplified by the contributions of Havrilesky (1987, 1993), who identifies structural elements, political linkages, and even personal characteristics that appear to have motivated Federal Reserve decision-making.

The paper extends Cukierman's (1992, Chap. 9) basic model of private information on changing objectives, discretion, and credibility. Following Friedman (1975), we consider a setting in which the monetary authority does not directly control a monetary aggregate. Hence, the model central bank, like those in the real world, must choose between either an interest-rate or a bank-reserve instrument of monetary policy. We demonstrate that whenever monetary policy is subject to control errors that real-world central banks also experience, the variability of political pressures can play a crucial role in influencing the choice of a monetary-policy instrument. Within the present model, as in Poole's, the shapes and relative variations in the positions of the *IS* and *LM* schedules influence a monetary authority's choice and day-to-day maintenance of a policy instrument. Nevertheless, the variability of political pressures can, because of its effects on central bank credibility, easily tilt the monetary authority toward the use of an interest-rate instrument instead of a reserve instrument.

Below we show that the current widespread adoption of interest-rate instruments could arise because a conservative central bank, which leans toward achieving lower mean inflation and lower inflation variability even at the sacrifice of larger output gains, can enhance its credibility when it uses the interest rate as its policy instrument. The key factor