
RESPONSE TO FRIEDMAN

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Professor Friedman restates his three reasons for adding credit to the list of intermediate targets for monetary policy: (1) policymakers should broaden their sources of information to include observations on both the asset and liability sides of the public's balance sheet; (2) the domestic nonfinancial credit aggregate (DNF) bears as close a relationship to nonfinancial economic activity as does any conventional monetary aggregate; and (3) ultimately this credit measure can be controlled by the Federal Reserve with about as much precision as any conventional monetary aggregate. In our response to Friedman we will focus on the second point since it is the major theme of our paper.

The empirical evidence analyzed by Friedman consists primarily of in-sample comparisons of monetary aggregates and a domestic nonfinancial credit aggregate for a variety of *nonstructural* statistical relationships: (a) coefficients of variation for the inverse of velocity; (b) St. Louis reduced-form equations; and (c) impulse response functions and variance decompositions derived from vector autoregressions. Friedman recognizes that the VAR approach may be more useful than either (a) or (b) for discovering regularities in the data because it allows for a richer dynamic specification of the interaction among vari-

ables.¹ However, our empirical results suggest that the VAR methods are not robust to even small changes in the specification. For example, after 16 quarters the bivariate impulse response function for domestic nonfinancial debt ranges from -.19 to 1.12 depending both on the ordering of the variables and on the choice of quarterly average or end-of-quarter data; or, M1's bivariate impulse response function after two quarters is either .05 or .63 depending on the ordering. In contrast to Friedman, such results do not lead us to conclude that credit and monetary aggregates are on an equal footing. After all, what can one learn from a procedure that cannot discriminate among alternative hypotheses?

Missing from Friedman's list of empirical comparisons is any reference to a structural model which may be presumed to be invariant to changes in monetary policy. The choice among monetary aggregates with stable demand functions as intermediate targets may be made along lines developed by Poole [1970], assuming that the ultimate objective is to minimize fluctuations in nominal income. In two recent theoretical papers, Papademos and Modigliani, have sought to extend this analysis to include debt

¹Friedman [1983], pp. 122-23.

instruments. We think that the debate concerning money and credit aggregates would be elevated considerably if the empirical work were able to produce estimates of the structural parameters in the Papademos-Modigliani model. Without a structural explanation of domestic nonfinancial credit, it is difficult to evaluate the behavior of the ratio of DNF to GNP. For example, does the recent departure of this ratio from 144 percent of GNP signify a permanent or a transitory change in its velocity level? Detailed structural work should be able to resolve such questions and, more importantly, shed some light on the conditions under which a credit aggregate could be expected to supplement information on monetary aggregates.

References

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