

changes; in writing for popular consumption, nonmonetary factors fade into insignificance: It is money that matters and money only, for all practical purposes.

What justifies these divergent interpretations, from a guarded and qualified reading of monetary history to the relatively unqualified conclusions on the causes of recent fluctuations in money income and prices? I don't find support for the money, only interpretation of recent developments in either Friedman's own evidence concerning the long sweep of U.S. history since 1867, or in the behavior of monetary variables and economy over the postwar years. If money were tightly linked to money income, then income velocity would be stable, or at least it would change only slowly and in a predictable fashion. If such a statistical association existed, and were to be useful for shortrun policy decisions, the evidence would have to show a constant or predictable relation between changes in money and changes in money income.

I don't see that Friedman's own evidence satisfies these conditions. Velocity fluctuates widely in the short run. Friedman takes comfort from the facts that over the nine decades for which he compiled the relevant statistics, the year-to-year changes in velocity were most often less than 10 percent, and that the changes most often fell within a range of plus or minus 15 percent of the long-term trend in velocity. But a 10 percent fluctuation in velocity, or a deviation of 15 percent from trend, is hardly an adequate standard for determining the usefulness of a guide to public policy. For example, a difference of 10 percent in the velocity of a given money stock, at today's level of the money stock, would result in a difference of about \$80 billion in GNP. The Council of Economic Advisers gets roasted when the errors in its annual forecasts are a fraction of that amount. Moreover, the cyclical amplitude of velocity has tended to be even wider than the year-to-year changes. This record obviously would not encourage one in assuming that changes in the money supply are a sufficiently consistent and tight predictor of the course of the economy as to warrant the exclusive dependence on money stock changes as the tool of economic stabilization.

Nor do I think that problems raised by this kind of instability of velocity can be avoided by relating the demand for money to permanent income, rather than to current income, as Mr. Friedman does. It is possible to explain some of the movements in measured velocity by this device, but not all of them. In some respects, indeed, the introduction of permanent income as the variable to which money demand reacts raises some knotty problems for Mr. Friedman's own evidence on the lags between policy actions and their effects on income. Jim Tobin points out, in an unpublished paper, that if the demand for money changes only as slowly as permanent income changes, then an injection of money into the economy should have a prompt and powerful bang on activity. Mr. Friedman himself has acknowledged as much, when he has argued that shortrun money multipliers should be larger than longrun money multipliers. But this seems inconsistent with his own statistical findings—and those of others—that suggest a long lag between an injection of money and its effects on activity. Friedman can't have it both ways; the effect of money stock changes can't be both prompt and delayed. I haven't seen this theoretical dilemma resolved, either in Friedman's work or elsewhere.