

Monetary Trends in the United States and the United Kingdom: * A Review from the Perspective of New Developments in Monetary Economics

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MILTON FRIEDMAN AND ANNA SCHWARTZ' *Monetary Trends* reports a great many findings—53 are enumerated in the introduction—but paramount is the stability of the demand for money in the US and Britain over the past century. The money stock controls money income. This proposition more than anything else is the point of their painstaking investigation.

Friedman and Schwartz argue against what might neutrally be called the early post-war view of the macroeconomic role of money: Velocity will move easily to reconcile any level of nominal income to any money stock. The demand for money in this view is a "will-o'-the-wisp," as the authors put it. Monetary policy has little influence over real activity; stabilization policy necessarily relies on fiscal instruments. The volume is completely convincing in disposing of this idea; today's reader is likely to be puzzled why so much space is devoted to a view that has no serious adherents among professional economists. Friedman and Schwartz are generals fighting an earlier war, a situation accentuated by the long lags in putting this volume into print.

Though the opposing armies fighting for the early postwar view have withdrawn in total rout, a new front has opened up, and the quantity theory is fighting for its life once again.

Worse yet, the new armies are fighting under the banner of free-market economics and are led by former colleagues and students of Milton Friedman. The midwest, once the stronghold of the quantity theory, is now largely occupied by the enemy.

The new monetary economics views the quantity theory as nothing more than an artifact of government regulation. An economy organized along free-market principles could function without money at all (Fischer Black, 1970). It is true that the kinds of monetary regulations imposed by the American and British governments of the past century create a more-or-less stable relation between a certain class of assets called money and nominal spending (Eugene Fama, 1980), but different regulations would alter that relation. Even the real bills doctrine, anathema to quantity theorists because it invites unlimited expansion of the money supply, has advocates in the new school (Thomas Sargent and Neil Wallace, 1981). A monetary system where the government is unconcerned about the money stock has been advocated by a University of Chicago economist while visiting the Hoover Institution (John Bilson, 1981). Restoring the intrinsic value of money, not limiting its quantity, has been found to be the key to successful disinflation by one member of this group (Sargent, 1982). A critical summary, titled "A Laissez Faire Approach to Monetary Stability," written

* See p. 1528, above, for publication information.

by Robert Greenfield and Leland Yeager (1982), points out the emergence of the new school.

Theoretical Underpinnings

Monetary Trends is not a treatise in monetary theory, but it seems useful to set out a few basic theoretical principles in order to see how the contributions of the volume fit into a larger picture of monetary economics. First, money matters in today's economy because we have chosen to quote prices in terms of money, or, to be completely specific, in terms of the high-powered money issued by the government. The price of money cannot change. Every shift of supply or demand in the money market must ultimately be accommodated by a change in the prices of all other goods and services. In the frictionless Walrasian economy, money controls the price level. In the real world, prices seem to have an element of fixity in the short run, and the money stock influences interest rates and real activity. Second, in the current setup in the US and Britain, the volume of deposits at banks matters. We let banks create deposits that are perfect substitutes for high-powered money but banks are either required to hold reserves by law or choose to hold them. The demand for reserves is strongly influenced by the public's demand for deposits and by other circumstances related to banking. In short, the quantity of money is at the center of the macroeconomic stage in an economy organized the way the US and British economies are today.

We need not have chosen this particular way to run the economy. For example, we might have chosen to quote prices in terms of weights of gold, rather than in terms of liabilities of the government. Then the gold market would occupy the center of the macroeconomic stage. Long-run prices, and short-run real activity, would be controlled by gold economics, not by the quantity of money. The point emerges most clearly in the contrast between the effects of monetary deregulation in the two systems. Under a contemporary fiduciary standard, complete deregulation including the removal of reserve requirements, accompanied by an unchanged stock of high-powered money, would be terribly inflationary. Under a gold

standard, with prices quoted in terms of weights of gold, deregulation would affect the price level only to the extent that it changed the supply of or demand for gold.

Even if we choose a pure fiduciary system, where prices are quoted in terms of a particular paper liability of the government, the system need not rest on government control of the stock of money. Fama (1980), in perhaps the most influential statement of the new monetary economics, points out what is central to the operation of a fiduciary monetary system. The government's monetary liability—call it a reserve—has some economic value, either because it is intrinsically useful or because the government creates an artificial demand for it through regulation. Through manipulation of the quantity of reserves or changes in regulations, the government controls the relative price of reserves and goods and services in general. Because prices are quoted in terms of reserves, the government thereby controls the price level.

As Fama stresses, nothing in this approach to controlling the price level necessarily involves the money stock. It is an accident of history that the US and British governments augment the demand for reserves by imposing reserve requirements against demand deposits (reserve requirements are only a recent feature of the British monetary system). In some economy of the future, observes Fama, reserve requirements could be imposed on spaceships instead, and the system would work just as well.

As it happens, the US and British monetary systems both rely on reserve requirements against deposits, so the investigation carried out by F-S is highly relevant. When some future regime in one of the nations adopts reserve requirements for spaceships, we will have to call in another team to investigate the stability of the demand for spaceships, which will have the role of the demand for deposits today. In the meantime, the evidence from F-S can help us understand the system we have. Moreover, their evidence from the years of the gold standard is not off the point. We can learn about the stability of the relation between the quantity of money and nominal income, even from data on an economy free of controls on deposits.

Monetary Regulation in the US and Britain

Monetary Trends is remarkably silent on the role of government regulation in stabilizing the demand for money. Now and then the reader gets a glimpse of the issue. In Chapter 4, we learn that British banks operated offices in pubs until 1890 to settle debts between farmers. Chapter 6 mentions the US prohibition of interest on demand deposits in 1933 and British tolerance of collusive agreements among banks to depress and finally eliminate interest. But the volume does not convey the new school's view that money is exactly a creation of regulation. Chapter 6, "Velocity and the Demand for Money," contains a list of the major determinants of velocity. These are (1) the division of economic activity between agriculture and industry, (2) real income per capita, (3) population, (4) prices, and (5) interest rates. Pervasive government regulation appears nowhere in the list.

On this issue, F-S' *Monetary History* is more helpful. Starting in the Civil War, the federal government regulated bearer securities tightly. The National Banking Act passed during the war limited note issue to nationally chartered banks and imposed substantial restrictions on the notes including the holding of US debt as reserves against notes. The total volume of notes was limited and minimum denominations were imposed. The issuance of bearer securities in small denominations by state banks and non-banking institutions was effectively prohibited, as it has been to this day.

Federal and state regulation of other transaction services was equally strict throughout the period studied in *Monetary Trends*. Anyone setting up a business to execute transactions among its customers on their written orders was almost sure to be treated as a bank, and state or national charters are required for banks. States and later the federal government imposed reserve requirements on bank deposits. Not until the very end of the period was there an upsurge of unregulated activities in the transaction industry.

Regulation of financial institutions throughout the period had two implications for the stability of the demand for money. First, and most important, a wide variety of methods of carrying out transactions and holding wealth

were regulated out of existence. Prohibition of interest paying, bearer instruments in small denominations has sustained the demand for currency. How much of the large volume of \$100 bills (counted in the money stock) would be there today if Sears Roebuck issued \$100 interest paying certificates (which would not be counted)? Regulations prohibiting the execution of transactions by non-banks were important throughout the period, though they have been eroded recently. Merrill-Lynch's Cash Management Account, which conveys purchasing power directly from financial assets to non-bank recipients even for tiny transactions, was made possible only by recent moves toward financial deregulation. Surely the behavior of velocity would have been quite different over the past century had free-market policies prevailed for transactions services.

The second implication is that regulation has also limited the activities of banks themselves. The law prohibits banks from dealing in foreign currencies for domestic transactions, for example. Federal and state regulators imposed reserve requirements throughout the century of *Monetary Trends*. From 1933 until the 1970s, explicit payment of interest on demand deposits was prohibited. Portfolios of banks have been strongly regulated throughout the period. Again, free-market policies would have created a more efficient banking system, which might have brought an entirely different velocity of money.

The Stability of the Demand for Money

Because the key features of regulation remained constant over F-S' century, notably the government enforcement of the monopoly shared by the federal government and the banks in transferring purchasing power and issuing bearer securities in small denominations, the liabilities of the monopoly—deposits and currency—have remained roughly stable relative to total spending. The evidence on this point is laid out in detail in the volume's central Chapter 6.

Even with the background of stable regulation, the demand for money is not completely stable, as F-S readily concede. At the beginning of the chapter, they report that the typical deviation of velocity from its average was 34 per-

cent for the US and 18 percent for the UK. The higher figure for the US stems entirely from the high level of velocity at the beginning of the century under study. After making an adjustment of 2.5 percent per year through 1903, Friedman and Schwartz find both countries had almost exactly the same stability of velocity. This adjustment for the "increasing financial sophistication" of the American economy in the late nineteenth century is carried through the rest of the study.

Rapid increases in financial sophistication taking place in the US today may be moving in the direction of rising velocity, as deregulation occurs and new technologies for carrying out transactions become available. It remains to be seen if a future study of this kind finds it necessary to introduce important dummy variables for the 1980s because of these developments.

Friedman and Schwartz also find major deviations from their final demand for money function in the aftermaths of the two world wars and also a long-term shift lasting from the 1920s to the 1950s. The shift amounts to 17 percent in the US and 21 percent in Britain. The standard errors of the residuals from the final money demand equations, containing all the explanatory variables, are just over 5 percent in level form, and around 1.5 percent in difference form. These figures suggest extreme stability of the demand for money. But the reader will be abundantly aware of the importance of the early adjustment for growing financial sophistication in the US, the postwar effects, and the 1920s-to-1950s shift. Chapter 6 does an excellent job in decomposing and quantifying the shifts in the demand for money that occurred in the two countries over the century under study.

Implications for Monetary Policy

Monetary Trends is very much in the distinguished National Bureau tradition of pure research on applied economic issues. Almost nothing is said about the lessons of the work for the design of macroeconomic policy. Still, every reader will know about the simple approach to monetary policy long advocated by Milton Friedman—stabilization of the growth of the money stock at a low level. Each devia-

tion from the money demand function casts doubt on the wisdom of the constant growth rule. Under the rule, an upward shift brings recession and deflation, and a downward shift boom and inflation.

The wanderings of the money demand function documented in *Monetary Trends* suggest that a constant growth rule would have been far from perfect in stabilizing prices in the long run and real output in the shorter run. For example, the sharp upward shift in the demand for money in Britain early in the 1920s and in the US late in the 1920s would have brought recession and deflation even without the perversities of economic policy so ably described by F-S in their earlier volume.

Still, the shifts documented in *Monetary Trends* are benign compared to the movements in real output and the price level actually experienced during the century. The economic history of the two nations would have been far happier under constant money growth even with the major deviations from the money demand function.

The new school of monetary economics has two cases against the constant growth rule. First, the macroeconomic performance of the policy, while much better than the actual policy of the past century, could be quite a bit better. Second, and more fundamental, the money stock itself is a creature of inefficient regulation. Standard microeconomic principles dictate the deregulation of transactions and intermediation for exactly the same reasons they call for free-market policies in other markets like air travel. But the school is far from united on where to turn for a better monetary policy. Fama (1982) has proposed the application of the money growth rule to currency alone. Black (1981) advocates Irving Fisher's (1920) variable gold standard. Hall (1982) suggests a variable commodity standard not based on gold. Bilson (1981) favors a fiduciary money paying, in effect, market interest rates. All of these proposals share a basic microeconomic goal—full deregulation of transactions services and intermediation. None of them would rely on the concept of a money stock or its stability relative to total income. Whether their macroeconomic performance would equal that of a simple money growth rule is still a matter of controversy.

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