

## THE FUTURE OF PRICE STABILITY IN A FIAT MONEY WORLD

*Jerry L. Jordan*

Political and economic restructuring—*perestroika*—is sweeping the world. Entire political systems are being restructured. Economic restructuring is occurring at the country, industry, and firm levels—the ultimate objective of which is to achieve better economic performance.

During the Great Depression of the 1930s, there was a pervasive, worldwide increase in government involvement in economic affairs. Mussolini's "corporate state" appears to have been the model for much of the increased political control over decisions about what was produced, where it was produced, who could produce it, how much could be charged for it, and how much workers and other factors of production could be paid for producing it.

After 50 years of laboring in this corporate state environment, we have started to see the dismantling of the 1930s' political/economic institutions at the national and international levels. Deregulation, denationalization (privatization), and tax reduction as well as tax reform are nearly universal, non-ideological phenomena. For the time being, concerns about governments reimposing wage and price controls, credit controls, exchange or capital controls, and other bureaucratic interferences in the economy can be put on the shelf.

One of the areas where we have seen little movement thus far is governments' monopolies of money creation through nationalized central banks. But the intellectual tide is slowly changing with increasing interest in the case for denationalization of money. (See, e.g., Friedman and Schwartz 1986.) The dangers and abuses of government monopolies of money creation have been well documented.

---

*Cato Journal*, Vol. 9, No. 2 (Fall 1989). Copyright © Cato Institute. All rights reserved.

The author is Senior Vice President and Chief Economist at First Interstate Bancorp. Discussions with Karl Brunner during the preparation of this paper significantly added to the analysis of the issues and the recommendations for reform. Anna Schwartz offered numerous helpful comments to improve the exposition of the final draft.

The absence of any effective “rule of law” constraining the discretion of governmentally controlled central banks in the 20th century has been thoroughly studied.

The nearly universal rejection of collectivist approaches to economic activity should now start to include central banking and money creation. Private, competitive approaches offer greater stability and protection from political abuse, as experience demonstrates.

## Failures of Discretionary Governmental Control

The performance of discretionary monetary authorities has been poor. There is growing concern about continued reliance in the future on a “great man” approach to discretionary monetary policies that are formulated and implemented by central banks. The United States has followed a purely discretionary approach to the formulation and implementation of monetary policy, at least since the early 1970s. Indeed, unless one believes that the Bretton Woods system or the “gold-cover clauses” (regarding the issuance of currency and deposits at Federal Reserve banks) provided much institutional discipline, the United States has pursued a discretionary monetary policy since the 1930s.

I have argued elsewhere (Jordan 1988a) that the existence of a government agency such as a central bank that exercises sole and unlimited discretion is inconsistent with the general character of the U.S. Constitution. Not surprisingly, this compromise of constitutional principles has not brought about monetary arrangements that ensure stability. Still, simply reverting to a specie standard would also not ensure stability and is not politically feasible in any case. A new, privately issued, unit of account—whether defined in terms of a commodity basket or a basket of fiat national currencies—could only very gradually become a viable alternative to the present monetary system.

I have chosen to focus on changes in the present institutional arrangements that I think can and should be implemented, and which would facilitate the evolution away from the present governmental, discretionary fiat monetary system. Some of my recommendations are intended to enhance market-derived discipline as it presently exists. Other recommendations are intended to increase the potential for evolutionary changes in monetary arrangements to provide greater discipline in the future.

## A Public Choice Approach

The objective of this paper is not to give advice to the Federal Reserve about current monetary policy. Borrowing an analogy from

James Buchanan, the presently constituted Federal Open Market Committee is like the players of a football team out on the field, playing according to the current rules of the game to the best of their abilities. Some of us have at times performed the role of those on the sidelines, whispering in the coach's ear about which plays to call, or asking to be put in the game. Some of us also have been "Monday morning quarterbacks," critiquing the way yesterday's game was played. But the present game is inherently flawed. The current system relies on a "great man" theory, emphasizing judgment and discretion rather than rules for formulating and implementing monetary policy.

Considering alternative monetary arrangements is like the team owners and consultants who gather in the off-season to consider changing the rules according to which the game will be played in the future. Continuing the analogy to competitive team sports, the "designated hitter" rule in baseball, the three-point play in basketball, and the "instant replay" in football are familiar rule changes that have affected the respective games.

The economics profession has achieved some success in the past in altering institutional arrangements for conducting monetary policy. The ending of the tiered structure of reserve requirements and the "lagged reserve accounting" system, abolishing the use of discretionary changes in reserve requirements for stabilization purposes, and phasing out Regulation Q interest-rate ceilings at depository institutions were all the result of economic analysis and empirical evidence that persuaded Congress that these "rules of the game" should be changed. I will recommend additional changes of the same type, and a few changes that would more fundamentally alter the nature of the game.

## Functions of Money

In gathering information about relative prices and conducting transactions, people use as money that entity that economizes best on the use of other real resources (Alchian 1977, Brunner and Meltzer 1971). Thus, the efficiency of money influences the productivity of the real resources in society. The higher the quality of the entity that serves as money, the higher will be the standard of living.

Money can serve as a *store of value*, although many other assets also serve as stores of value, but not as money. Yet, I am skeptical whether any unit would ever serve as money that was not also a store of value. There is no case that I am aware of in which an entity did not serve as a store of value prior to beginning to serve other functions

of money. Under present arrangements, alternative monies (e.g., foreign currencies or specie) can compete with the domestic monetary unit as stores of value and thereby provide some discipline, even if they do not compete in the other functions of money. Although not unique to money, the store of value function is, nevertheless, very important.

Money also serves as a *unit of account* and as a *medium of exchange*. The first is an abstract concept, while the second is tangible and potentially quantifiable. These functions are separable, even though we normally see the same entity serve as both the unit of account and the medium of exchange. When we contemplate alternative monetary arrangements, we should be careful to specify which of these functions, or both, will be influenced by proposed changes in the status quo (see, e.g., Klein 1974, McCallum 1986, White 1984). Also, communication would be enhanced if we are careful to distinguish between “dollars” and “dollars worth of” some asset.

For at least the next decade, dollars will continue to be both the unit of account and the medium of exchange in the United States. Also, U.S. dollars (i.e., Federal Reserve notes and privately issued travelers’ checks denominated in dollars) serve as stores of value in many foreign countries. In some foreign countries, the dollar serves as the unit of account and even as the medium of exchange. U.S. dollar-denominated deposits at foreign domiciled institutions—so-called eurodollars—serve as stores of value in foreign countries; dollars also serve as a unit of account and, occasionally, dollar balances are the medium of exchange in international transactions.

U.S. dollars (Federal Reserve notes) occasionally serve as a medium of exchange in Canada, but the U.S. dollar is not the unit of account. In Mexico and elsewhere, the U.S. dollar has at times served as a unit of account even when U.S. currency or dollar balances are not the medium of exchange. Prices of internationally traded commodities are often quoted in U.S. dollars even though the transaction may be consummated in another currency.

Within this country, one may choose among U.S. Treasury coins, Federal Reserve notes, private bank deposits, and privately issued travelers’ checks as forms of holding dollars. Starting January 1, 1990, banks in the United States will be permitted to offer deposits denominated in foreign currency units. It is already permissible to hold foreign national paper currencies and coins, but they do not serve as units of account or as media of exchange in this country.

The remainder of this paper concentrates on such issues as private versus public issuance of dollars and on competition for the dollar as a unit of account, as a medium of exchange, and, internationally, as

a store of value. My emphasis is on the ways that discipline can be achieved as a result of falling information costs, falling transaction costs, and emerging technologies for money creation. In the evolution toward private monetary institutions, discipline can be reinforced by institutional changes that will constrain governmental creation of money units.

## Achieving Monetary Discipline

No institutional discipline in the United States currently constrains the central bank's ability or authority to create nominal money units. We all understand that central banks do not create "real money balances." However, people sometimes talk as though the creation of additional fiat money units creates real money balances on a one-to-one basis. In fact, the opposite tends to be the case. Excessive creation of nominal money units reduces the efficiency/productivity of a nation's money, causing other real resources to be substituted for the functions of money. Consequently, achieving institutionalized or greater market discipline over the creation of nominal money units would increase social well-being.

In the 20th century, governments have increasingly financed current outlays by the issuance of interest-bearing obligations in well-developed capital markets without effective institutional constraint. In the United States, there is a national debt ceiling, but it is not binding since it is regularly increased every time the old limit is reached. The companion development of the phenomenon known as "open-market operations," whereby a central bank exchanges its own non-interest-bearing liabilities for the interest-bearing liabilities of the government sector—again without institutional constraint—has raised the average rate of inflation in the second half of the 20th century.

Present institutional arrangements raise the following questions: Is it politically feasible to sustain a non-inflationary monetary policy if there is an imbalance in the fiscal accounts? Namely, if institutional restraint on the government's ability to finance current expenditures by the issuance of interest-bearing obligations is lacking, is it practical to seek institutional restraint on the creation of money units by the central bank? If it is even theoretically possible, is it politically feasible? (See Sargent and Wallace 1981; also Sargent 1988.)

Furthermore, what would be the real economic implications of maintaining relative price stability through monetary policy if the imbalances of fiscal accounts persist? Karl Brunner and Allan Meltzer (1972), and later Jerome Stein (1977), have explored the implications

of secular increases in the ratio of interest-bearing obligations of the government sector relative to the non-interest-bearing obligations—known as the monetary base. They concluded that a rise in this ratio gradually raises real interest rates and, therefore, affects resource allocation.

In such an environment, society increasingly uses resources to satisfy current consumption demands rather than to enhance the ability to increase consumption in the future. It thereby lowers the secular growth potential of national output and, over time, standards of living rise less rapidly. All of this suggests that it is not useful to focus only on monetary rules as though they are separable from fiscal rules. In the long run, monetary policy is a fiscal instrument—it is a way of financing the government. If there is no constraint on government spending as a share of national income, and no constraint on the government's ability to incur deficits and issue interest-bearing obligations, then it is not likely that in a democracy the central banking authorities would find it possible in the long run to sustain a non-inflationary monetary policy (Jordan 1984, Sargent 1988).

## Institutionalizing Monetary Discipline

Proposals for institutional arrangements to constrain the central bank's ability to create money are not more likely to be implemented than a balanced budget amendment to the Constitution or an effective debt ceiling on the interest-bearing obligations issued by the U.S. Treasury. Consequently, I am not optimistic that a legislated "monetary growth rule" would serve as an effective constraint on money creation and help maintain price stability.

Milton Friedman (1980) has advocated simply freezing the monetary base. I have previously suggested that open-market operations should be abolished and that any expansion of the monetary base should be accomplished by some other mechanism. Karl Brunner and I have discussed the idea of holding a national lottery for increasing monetary-base units. For example, if the monetary authorities wanted to increase the monetary base by \$1 million dollars next month, they would sell 10 million \$1 tickets and award winnings totaling \$11 million. Each ticket would have an expected value of \$1.10. Thus, you would have a positive-sum lottery to increase the monetary base. The problem, of course, is that there would not be any effective institutional restraint on the growth of the monetary base, but it would be a movement away from the present system of enriching the brokerage community and government security dealers

as the government creates money. The move would favor the general public who purchases the lottery tickets.

Allan Meltzer (1987) has argued that one way to institutionalize a constraint on the growth rate of the monetary base would be to enter into treaties with other countries agreeing to limit respective monetary base growth rates to the prior three years' growth rate of actual output, less the actual growth of velocity over the period. A "McCallum Rule" would be an alternative approach to providing some flexibility in the implementation of the treaty over time (McCallum 1988). The idea is that once the U.S. Congress has ratified a treaty with other countries, the treaty might serve as a more effective institutional restraint than we have in the case of the national debt ceiling. Such a proposal may have some merit as an interim form of discipline as long as we still have monopoly central banks. Such a treaty, however, should not be construed as a permanent solution to the dangers and inequities inherent in a statist approach to money creation.

At the time of the U.S. Gold Commission hearings, Robert Weintraub proposed linking the creation of monetary base units to the dollar price of gold. He wanted to limit the creation of base money in a way that made the monetary base effectively backed by the U.S. gold stock. However, any such formula would be quite easy for Congress to change, so it would not be any more effective than the debt-ceiling limit.

## Financial Markets as Monetary Police

What discipline there has been in the last decade over creation of central bank money has come from the financial markets. Increasingly, people have come to think of the dollar's performance on the foreign-exchange markets and the behavior of interest rates in government securities markets as serving as police or disciplinarians constraining central banks' latitude for discretion in creating fiat money. When the dollar has been extremely weak on foreign-exchange markets, as we saw in the late 1970s and again in the second half of the 1980s, international political pressures arising from appreciation of other currencies caused the central bank to intervene and, thus, to contract base money.<sup>1</sup>

### *Foreign-Exchange Intervention*

Domestic open-market operations should be abolished except in the case of a declared "national emergency." Any intervention by the

<sup>1</sup>For a discussion of the effects of sterilized and unsterilized foreign-exchange intervention on the growth of the monetary base and money supplies, see Jordan (1988b).

central bank in foreign-exchange markets should also be prohibited. Some of the rhetoric about intervention on foreign-exchange markets contributes to confusion about money creation. We see reports in the newspapers that the Federal Reserve is said to have “purchased dollars.” This “trader talk” makes no economic sense because the Federal Reserve does not have any means of paying for dollars other than through borrowing foreign currency (through swap agreements with foreign central banks) or by selling currencies that have previously been acquired by the U.S. Treasury for the exchange stabilization fund. The idea of the Federal Reserve “buying dollars” should be interpreted to mean that the Federal Reserve is *extinguishing* dollars—the medium of exchange, not the unit of account.

The disposal of foreign-currency units that the Fed does not own, but has borrowed from other central banks or that the U.S. Treasury is holding, results in a contraction of the monetary base. When the intervention to sell foreign currencies involves “swap agreements,” the Fed has incurred an obligation to repay the borrowed currency, so they have engaged in a “short sale.” Selling short entails risk—in this case to the U.S. taxpayers. My guess is that the reason the U.S. Congress tolerates this type of transaction is that members of Congress do not understand it.

The incentive not to sterilize fully such intervention comes from the fact that a capital loss will be incurred if the dollar continues to fall after foreign currencies, obtained through swaps, have been sold. However, such risk has not provided consistent discipline in the past. A way of viewing this is in terms of domestic open-market operations. Instead of saying that the Federal Reserve “bought” government bonds, one could say that previous holders of government bonds “purchased” monetary-base units and “spent” interest-bearing government securities to pay for them. Thought of that way, the “price” of base money would be expressed in terms of the inverse of the price of government bonds. When the Federal Reserve bids up the price of government bonds in dollar units (and, therefore, temporarily bids down the nominal interest rate), the mirror image is that the government-bond price of base money has gone down.

A transaction in which our central bank sells dollars or purchases foreign currency increases base money the same as when there is an open-market operation to acquire government securities. Such monetization of debt is a form of unlegislated tax and usually is a very regressive as well as divisive form of taxation.

### *Competing Monies*

In a very fundamental sense, there is a competing demand for base-money units between transactions liabilities issued by depository

institutions and currency. Under current institutional arrangements, for a given amount of base money, an increase in the public's desire to hold currency reduces the reserves available to support transaction liabilities at depository institutions, causing a multiple contraction of such deposits. Any increase in the demand for transaction liabilities issued by financial institutions and, therefore, in the reserves necessary to support them forces a contraction of currency held by the public unless there is an accommodating increase in monetary base provided by the Federal Reserve.

The eventual emergence of "electronic currency" will create a private alternative to Federal Reserve notes as currency and will allow banks to hold fractional reserves against currency. Such arrangements will eliminate one source of fluctuations of the various monetary multipliers caused by competing uses of base money when one type of money is supported by fractional reserves and another type is not.

The demand for base money issued by the government sector would go down, as private currencies—whether denominated as American Express (AMEX) notes, European Currency Units (ECUs), or dollars—replace governmentally issued 100 percent reserve currencies. Theoretical and empirical research will have to derive the monetary multiplier and the velocity implications of such private currency arrangements.

If interest were paid on reserves that the depository institutions are required to hold at the Federal Reserve, then we would have a shrinking stock of non-interest-bearing "high-powered money" or monetary base as private currency replaces Federal Reserve notes. All government liabilities issued by both the Treasury and the central bank would be interest bearing, except for any paper currency and coin that still circulates. But, if central-bank fiat currency is a diminishing part of the total because of the emergence of electronic currencies issued by the private banking system, there would be even less rationale for open-market operations.

As foreign-currency-denominated deposits become available and more common—at least as alternative stores of value—"competing base monies" become more meaningful. Since the demand for base money is derived from the demand for currency and demand deposits, changing public preferences for alternative monetary units will constrain the central bank's ability to monetize debt. Lower costs of switching to alternative currencies will inhibit the central bank from engaging in excessive monetary creation.

## Institutional Reforms

For most of the 75-year history of the Federal Reserve system, money and banking textbooks have taught that there are three tools of monetary policy: reserve requirements, the discount rate, and open-market operation. Since enactment of the “Depository Institutions Deregulation and Monetary Control Act of 1980,” there have been no changes in reserve requirements imposed on depository institutions. That still leaves two tools for discretionary policies.

### *Discount Rate*

Economists are generally agreed that discretionary changes in the Fed’s discount rate have little quantifiable effect on anything important. Yet changes in this rate are highly visible and tend to be politically sensitive. Removing the discretion and the political sensitivity would be highly desirable. Initially, the Fed should be encouraged to frequently raise this rate, explaining increases to the politicians as anti-inflationary actions, until the rate is above the federal funds rate. Then, when the federal funds rate falls below the discount rate, the Fed should announce that it is going to cut the discount rate and float it at a level one-quarter percentage point above the federal funds rate. Announcement of a floating rate will be more acceptable if it involves a reduction of the rate than if it involves an increase. Establishing a small penalty above market rates will make borrowing at the discount window a “right,” rather than a “privilege,” as it is now. Floating the rate will end the discretion and eliminate the political sensitivity of changes in the rate.

### *Open-Market Operations*

On behalf of all of the Federal Reserve banks and under the direction of the Federal Open Market Committee, the Trading Desk of the New York Federal Reserve Bank engages in transactions in the government securities market. When the Fed “buys” government securities, the debt is effectively cancelled. This action is referred to as “monetization” of the national debt. What are often referred to as the “non-interest-bearing liabilities of the government”—bank reserves and currency—are increased as a result of the Fed’s monetization of government debt. There are no institutional limits on the amount of interest-bearing debt that can be cancelled in this way, and so there is no limit on the amount of non-interest-bearing debt, or monetary base, that can be created. This undesirable situation is, I believe, a source of much of the monetary instability of the past 40 years.

Congress should be persuaded that open-market operations, like changing reserve requirements, should be undertaken only very infrequently—such as during a declared “national emergency.” All of the securities currently held by the Federal Reserve Banks should be cancelled. At the end of 1988, the Federal Reserve Banks held nearly \$240 billion of U.S. government securities. The facade of the Fed’s “income” from such securities drives a wedge between corporate before- and after-tax income in the national income accounts and should be eliminated. The Treasury’s actual net interest expense—excluding the amount currently paid to the Federal Reserve Banks and then returned to the Treasury as “other income”—would be correctly reported.

### *Federal Reserve Board and the Reserve Banks*

Back in 1913, Carter Glass and his congressional colleagues thought they were setting up a system of “bankers’ banks,” supervised by a quasi-governmental board. “Reprivatizing” the Federal Reserve banks would move us back in the direction originally intended and would reintroduce some competitive discipline. The Board of Governors should be financed by congressional appropriations, rather than assessments of the Reserve banks. The Reserve banks should be operated as profit-seeking companies. They should cease performing those services that can be performed better by others; in the services they do provide, they should be allowed to compete with one another. Economic efficiency requires that Reserve banks provide only those services in which they have a comparative advantage.

District boundaries should be abolished (present boundaries were supposed to have been only a temporary expedient), and the owners of the Reserve banks (member commercial banks) should be permitted to sell as well as buy shares of the Reserve banks. Reserve requirements are now uniform as well as universal for depository institutions, and there is universal access to the discount window and other services, regardless of the type of institutional charter held. Thus, there is no reason to require some depository institutions to hold stock in Federal Reserve banks while others do not.

### *Reserve Requirements*

The Federal Reserve Banks should be permitted to pay interest on reserve balances, and the level of such reserves should be that amount necessary for clearing and liquidity purposes. Non-interest-bearing reserve requirements, with a minimum level above the desired reserve level, serve as a tax on the right to operate as a bank.

They reduce the earnings of the depository institutions, and they create an inequity between depository institutions and their competitors such as money market mutual funds. The current 12 percent idle reserve balance on transaction liabilities of depository institutions is excessive. The Federal Reserve should begin to gradually lower the minimum reserve balance to the 8 percent level permitted by the 1980 legislation. New legislation should be sought to permit further reductions if it then appears that 8 percent is greater than the level necessary for clearing purposes.

Reserve requirements on "travelers' checks" issued by banks should be abolished. Currently, travelers' checks issued by non-banks (American Express, Mastercard, Visa) are not subject to reserve requirements. It is ironic that the Federal Reserve now includes in measures of the U.S. money supply about \$7.5 billion of travelers' checks issued by nondepository institutions, while depository institutions have not been successful in creating this form of private money. The 12 percent idle reserve on outstanding amounts is an impossible hurdle for depository institutions to overcome in competing with nondepository institutions that must maintain only a clearing balance, based on actual redemption experience. This inefficiency should be eliminated.

## Emerging Technologies and Further Reforms

Effective January 1, 1990, U.S. commercial banks will be permitted to offer deposits denominated in foreign currencies. There should be no legal reserve requirements on such accounts. The banks that offer them will be required to maintain corresponding balances in foreign currencies to hedge the currency exposure and/or will use other techniques for hedging against exchange-rate risk.

Travelers' checks denominated in foreign national currencies will become more readily available and serve as an alternative "abode of purchasing power" once the costs of converting relatively small amounts are lowered. Travelers' checks, or deposits denominated in ECUs or other "baskets" of national currencies, will provide opportunities for diversifying exposure to purchasing-power changes.

### *Private Electronic Currencies*

As "smart card" technologies become more available, the potential for truly private currency emerges. "Electronic currency" is created when a microdot records a claim on the issuing institution that can be transferred to others. A "withdrawal" occurs when an individual instructs the bank to transfer funds from a deposit account to the

smart card. When a purchase or payment is made, the recipient receives a claim on the bank. In the meantime, the outstanding amount of “float” recorded in the smart card is a new form of privately issued currency. As such, it competes with Federal Reserve notes and Treasury coins, as well as other private currencies such as travelers’ checks.

There should be no legal minimum reserve requirements imposed on outstanding smart-card liabilities. Such amounts should not be defined as “deposits.” Actual experience with clearings will dictate the liquidity balances that will be held by the issuing institution, as is the case with American Express checks today. If the Federal Reserve imposes reserve requirements or other restraints on the issuance of such privately issued electronic currencies, banks will not be able to compete, and once again the unregulated nonbanks such as American Express, Mastercard, and Visa will become the dominant issuers of private currency.

New currency units—defined initially as a fixed-weight basket of familiar national currencies, such as ECUs or AMEXs—are now becoming possible. Accounts denominated in units that represent baskets of currencies will occur first as an alternative store of value. Whether a demand for alternative units of account or for media of exchange emerges will depend on the experience with the dollar and other national currencies in the future.

Alternatives to Federal Reserve notes and Treasury coins as media of exchange have always been available as deposits issued by private banks. In the 1980s, such deposits became more competitive as interest prohibitions or ceilings were eliminated. They would become even more competitive if non-interest-bearing reserve requirements were lowered or abolished.

Privately issued travelers’ checks compete with government-issued currency and privately issued deposits as media of exchange, but generally are cancelled after only one transaction. The emergence of “electronic currency” technology offers the possibility of a new form of privately issued media of exchange.

### *Specific Performance*

Alternatives to the dollar as a unit of account in the United States are not currently available. The institutional reform that would open up the possibility of privately issued alternatives to the dollar as a unit of account is legislation requiring the enforcement of “specific performance” by the courts. Currently, a contract between two parties can be stated in terms of a foreign national currency, gold, or other unit. However, in the event of default, the courts will not

require performance in the stated unit, but will require a “dollar equivalent” to be paid. Failure of the courts to enforce specific performance seems to be contrary to the constitutional prohibition of laws “impairing the obligation of contracts.” Enforcement of specific performance is essential to the creation of viable alternatives to the dollar as a unit of account.

Once the courts are committed to enforcing specific performance, contracts that stipulate specie, basket currencies such as ECUs, AMEXs, or commodity-backed-currencies will be tested for acceptability. Friedman and Schwartz (1986) are persuasive in arguing that a “phoenix” fiat currency has never arisen in the past and will not in the future. Any new currency unit will initially be defined in terms of existing fiat currencies, just as the Japanese yen and Deutsche mark were initially defined in terms of U.S. dollars after World War II. The yen and mark were delinked from the dollar only when the dollar’s tenuous remaining linkage to gold was severed in the early 1970s. Most national currencies of smaller or less-developed nations continue to be defined in terms of the dollar or one of the other major national fiat currencies.

## Summary of Recommendations

The following are some of the institutional reforms of present monetary arrangements that I believe should be implemented.

### *Near-Term Actions*

As immediate steps, until further reforms can be implemented, the United States should

1. Seek a treaty with other major industrialized countries (such as those comprising the G-7), agreeing to form a “price stability club” in which each country agrees to limit the growth of its monetary base to a rate compatible with price stability and long-run growth potential.
2. Float the discount rate at a small premium above the Federal funds rate.
3. Lower the minimum reserve requirements on transactions to the 8 percent level permitted by current law and enact legislation to lower the rate further.
4. Allow interest to be paid on any reserve balances depository institutions are required to hold at Federal Reserve Banks.
5. Eliminate reserve requirements on travelers’ checks issued by depository institutions.

6. Prohibit central bank transactions in foreign-exchange markets, except in cases of declared national emergencies.

### *Longer-Term Reforms*

Over the longer run, the United States should

1. Legislate “specific performance” so that contracts written in terms of foreign currencies, specie, various “basket,” or other private currency units are enforceable in the unit specified in the contract.
2. Exempt from minimum reserve requirements all “electronic currency” issued by banks as “smart-card” technologies become available.
3. Abolish open-market operations.
4. Cancel the government securities currently held by Federal Reserve banks.
5. Reprivatize the Federal Reserve banks, abolish district boundaries, allow the Reserve banks to compete with one another, and permit commercial banks to buy or sell stock in Federal Reserve banks.

None of these proposals is “revolutionary”; none would result in dramatic changes in the public’s available options regarding stores of value, media of exchange, and units of account. However, the changes in the institutional rules of the game would begin to affect behavior over time and ultimately would result in a lessening of the government’s role in our monetary system. Now that market-oriented systems, relying on private initiative and unfettered competition, are becoming recognized as superior—even in socialist economies—denationalization of the money-creation process should be included in the agenda for economic restructuring.

### References

- Alchian, Armen. “Why Money?” *Journal of Money, Credit and Banking* 9, no. 2 (1977): 133–40.
- Brunner, Karl, and Meltzer, Allan H. “Money, Debt, and Economic Activity.” *Journal of Political Economy* (September/October 1972): 951–77.
- Brunner, Karl, and Meltzer, Allan H. “The Uses of Money: Money in the Theory of an Exchange Economy.” *American Economic Review* 61 (December 1971): 784–805.
- Friedman, Milton, and Schwartz, Anna J. “Has Government Any Role in Money?” *Journal of Monetary Economics* 17, no. 1 (1986): 37–62.
- Friedman, Milton. “Monetary Policy for the 1980s.” In *To Promote Prosperity: U.S. Domestic Policy in the Mid-1980s*, pp. 23–60. Edited by John H. Moore. Stanford, Calif.: Hoover Institution Press, 1980.

- Jordan, Jerry L. "Economic Policymaking in 1980s—Evolutionary or Revolutionary?" Paper prepared for the Oppenstein Brothers Foundation and presented at Rockhurst College and the University of Missouri at Kansas City, Missouri, 1984.
- Jordan, Jerry L. "NABE Presidential Address: The Economic Role of Government." *Business Economics* (January 1988a): 14–20.
- Jordan, Jerry L. "Weakening the Dollar: The Tax No One Has to Vote for." In *Assessing The Reagan Years*, pp. 175–86. Edited by David Boaz. Washington, D.C.: Cato Institute, 1988b.
- Klein, Benjamin. "The Competitive Supply of Money." *Journal of Money, Credit, and Banking* 6 (November 1974): 423–53.
- McCallum, Bennett T. "Bank Deregulation, Accounting Systems of Exchange, and the Unit of Account: A Critical Review." *Carnegie-Rochester Conference Series on Public Policy* 23 (Autumn 1986): 13–46.
- McCallum, Bennett T. "Robustness Properties of a Rule for Monetary Policy." *Carnegie-Rochester Conference Series on Public Policy* 29 (Autumn 1988): 173–204.
- Meltzer, Allan H. "The Limits of Short-Run Stabilization Policy." *Economic Inquiry* 25 (January 1987): 1–13.
- Sargent, Thomas. "The Rose of Monetary Policy under U.S. Institutions." In *Thinking about America: The United States in the 1990s*, pp. 311–22. Stanford, Calif.: Hoover Institution Press, 1988.
- Sargent, Thomas, and Wallace, Neil. "Some Unpleasant Monetarist Arithmetic." *Federal Reserve Bank of Minneapolis Quarterly Review* 5, no. 3 (1981): 1–17.
- Stein, Jerome. "Inside the Monetarist Black Box." In *Monetarism*, pp. 183–232. Edited by J. Stein. New York: North-Holland, 1977.
- White, Lawrence H. "Competitive Payments Systems and the Unit of Account." *American Economic Review* 74 (September 1984): 699–712.

## BOOK REVIEWS

### Selected Essays of Gottfried Haberler

Edited by Anthony Y. C. Koo

Cambridge: MIT Press, 1985, 652 pp.

Gottfried Haberler is one of the true giants of economic thought in the 20th century. Indeed, it is hard to understand why he has not yet been awarded the Nobel prize for his many fundamental contributions to macroeconomics and international economic theory and policy analysis. With the publication of this set of his articles, the magnitude and diversity of his contributions can be much more conveniently appreciated. While one can always second-guess the precise composition of the set included, Anthony Y. C. Koo has done an excellent job in his selection.

When combined with his two classic books, *The Theory of International Trade and Prosperity and Depression*, this collection offers an excellent overview of Haberler's contributions to modern economic analysis. The value of these three volumes is by no means limited to those interested in the history of modern economic thought. It is remarkable how relevant to the major economic issues of the day a high proportion of Haberler's work remains. Indeed, as he nears 90, Haberler continues to contribute to the clarification of contemporary policy debates with his traditional combination of insight, common sense, and graceful exposition. I was pleased that several of his more recent contributions to policy debates have been included in this book.

The volume is divided into five parts reflecting Haberler's major contributions: international trade, international finance, economic development, inflation and business cycles, and monetary theory. The placement of particular articles seems somewhat arbitrary; one of Haberler's greatest strengths has been his attention to the interrelationships among topics that had been traditionally segregated—for example, his emphasis on the role of trade in development and on the international aspects of domestic inflation and macroeconomic policies.

So much of what Haberler has contributed has become incorporated into mainstream macroeconomics and international economic analysis without attribution that many younger scholars do not know how much of a debt they owe him.<sup>1</sup> This volume can help correct that oversight. It can also serve as a model for those wishing to learn how to do economic research fruitfully. While the mathematical sophistication of today's young economists far exceeds that of the tools used by Haberler, in his earlier days Haberler made numerous contributions to the development

---

*Cato Journal*, Vol. 9, No. 2 (Fall 1989). Copyright © Cato Institute. All rights reserved.

<sup>1</sup>For a convenient set of summaries and evaluations of Haberler's contributions to the analysis of international trade, economic development, international finance, and macroeconomics, see the essays by Robert Baldwin, Lawrence Officer, and Thomas D. Willett in *The Quarterly Journal of Economics* 97 (February 1982): 139–69.