

GOLD STANDARDS: TRUE AND FALSE

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I. Introduction

A significant development in the current controversy over the role of gold in the U.S. monetary system, which has potentially important implications for both monetary theory and policy, has gone largely unnoticed by commentators on both sides of the debate. I am referring to the emergence of a new defense of gold that differs fundamentally from the traditional case for the gold standard. This development has been obscured by the diversity of plans for monetary reform coming out of the pro-gold camp.¹ A close examination of these proposals, however, reveals that they are of two distinct types; they differ not only in the reasons they offer for considering a gold standard desirable, but also in their conception of what monetary arrangements constitute a "gold standard."

First, there are the proposals that embody the traditional "hard-money" arguments for the gold standard. These arguments focus on the desirability of a free-market commodity money vis-à-vis a government-monopolized paper fiat money. The basic thrust of the *hard-money proposals* is to render government monetary policy superfluous by restoring a genuine gold standard under which the quantity and value of money is determined solely by market forces.²

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¹For a description and critique of these plans by an anti-gold writer, see Richard N. Cooper, "The Gold Standard: Historical Facts and Future Prospects," in William C. Brainard and George L. Perry, eds., *Brookings Papers on Economic Activity* (Washington, D.C.: The Brookings Institution, 1982), pp. 25-36; a discussion of some of these plans from a pro-gold perspective can be found in Joseph T. Salerno, "The Gold Standard: An Analysis of Some Recent Proposals," *Cato Institute Policy Analysis* (September 9, 1982).

²For example, see Rep. Ron Paul and Lewis Lehrman, *The Case for Gold: A Minority Report of the U.S. Gold Commission* (Washington, D.C.: The Cato Institute, 1982); Murray N. Rothbard, "To the Gold Commission," *The Libertarian Forum* 16 (April

The second group of pro-gold writers, whose proposals have received the most publicity, have eschewed the traditional hard-money case for gold and in its stead constructed a quite novel case purporting to demonstrate that gold can provide government monetary authorities with an effective instrument for managing the money-supply process within the established fiat-money framework.³ For this group, the *raison d'être* of a gold-based monetary regime is that it facilitates the achievement of government monetary policy objectives. Needless to say, the gold standard envisioned by these policy-oriented advocates differs quite radically from the ideal of the hard-money group. The gold "price rule," which is the monetary reform favored by most policy-oriented gold advocates, bears only a superficial resemblance to the traditional conception of the gold standard.

In the following sections of this paper, I shall present the traditional case for the gold standard and outline the species of monetary arrangements that are logically consistent with this case. I shall then address the new policy-oriented case for gold and demonstrate that it is fundamentally at odds with the hard-money case. I shall also argue that the gold price rule fails to meet the basic criterion of a genuine gold standard and is in reality a "pseudo" or "false" gold standard. Finally, the specific differences that divide the two groups of gold-standard advocates will be traced to a little noted, although fundamental, divergence in their views concerning the origin, nature, and function of money in a market economy. The policy-oriented supporters of gold begin with the presupposition, which today prevails among most monetary theorists and policymakers, that money

1982): 1-7; George Reisman, *Gold: The Solution to Our Monetary Dilemma* (Minneapolis: U.S. Paper Exchange, 1980); Lawrence H. White, "Gold, Dollars, and Private Currencies," *Policy Report* 3 (June 1981): 6-11; idem, "Inflation and the Federal Reserve: The Consequences of Political Money Supply," *Cato Institute Policy Analysis* April 15, 1982; R.H. Timberlake, Jr., "Solving the Monetary Crisis," *Policy Report* 3 (October 1981): 9-11; Joseph T. Salerno, "A Proposal for Monetary Reform: The 100% Gold Standard," *Policy Report* 3 (July 1981): 6-11; idem, "The Case for the Gold Standard," *The University of Baltimore Business Review* I (October 1981): 1-4; idem, "The 100 Percent Gold Standard: A Proposal for Monetary Reform," in Richard H. Fink, ed., *Supply-Side Economics: A Critical Appraisal* (Frederick, Md.: University Publications of America, 1982); pp. 454-88.

³This new defense of gold is embodied especially in the monetary reform proposals presented by adherents of supply-side economics. For a sampling of these proposals, see, Arthur B. Laffer, *Reinstatement of the Dollar: The Blueprint* (Rolling Hills Estates, Cal.: A.B. Laffer Associates, 1980); Robert A. Mundell, "Gold Would Serve into the 21st Century," *Wall Street Journal*, September 30, 1981, p. 32; Eugene A. Birnbaum, "Stabilizing the World's Money," *Wall Street Journal*, April 3, 1981, p. 22; Jack Kemp, "The Renewal of Western Monetary Standards," *Wall Street Journal*, April 7, 1982, p. 32; Alan Reynolds, "The Monetary Debate: Stabilize Prices, Not Money," *Wall Street Journal*, June 29, 1982, p. 26.

is a policy tool whose functioning necessarily involves some form of political control. In contrast, the exponents of hard money have always reasoned from the premise that money is an “undesigned” social institution, whose origin, evolution, and mode of operation are ultimately determined by spontaneous market forces.

II. The Traditional Case for the Gold Standard

The traditional, or hard-money, case for the gold standard is in essence quite simple. As Ludwig von Mises pointed out over 50 years ago, “the sound-money principle has two aspects. It is affirmative in approving the market’s choice of a commonly used medium of exchange. It is negative in obstructing the government’s propensity to meddle with the currency system.”⁴

There are two insurmountable problems inherent in removing the money-supply process from the hands of private decision-makers, who respond to market signals and incentives, and entrusting it to a political monopolist. The first involves lack of knowledge and is at the core of what Mises labels the “affirmative” aspect of the case for hard money. The second concerns the incentives governing the production decisions of those endowed with the legal monopoly of issuing money and corresponds to what Mises identifies as the “negative” aspect of the case.

The first difficulty with managed money is that the political authorities lack the requisite knowledge for determining in advance the “optimum” quantity of money for the overall economy at any point in time. What is required is information relating to all the factors affecting the aggregate demand for money in the economy. This information is not readily available in one place but is scattered throughout the economy among the individual market participants, each of whom is aware only of the relative intensity of his own desire for acquiring and holding cash.

An individual’s estimate of his cash requirements in given circumstances is necessarily subjective and hence can only be known to outsiders *ex post*, that is, by actually observing the temporal sequence of the individual’s sales and purchases on the market and the corresponding pattern of fluctuations in the size of his money holdings. Yet even if such knowledge could be obtained, it would be of little use in attempting to predict the quantity of money that an individual would demand at some point in the future since this quantity is not rigidly fixed but is subject to variation as a result of actually experi-

⁴Ludwig von Mises, *The Theory of Money and Credit*, H.E. Batson, trans. (Irvington-on-Hudson, N.Y.: The Foundation for Economic Education, Inc., 1971), p. 414.

enced, as well as anticipated, changes in market conditions, i.e., in prices, interest rates, profits, capital values, etc. These ongoing changes in objective economic quantities as well as the constant revisions in individual expectations to which they conduce are, of course, scientifically unpredictable.

Nor can the overall demand for money in the economy be gauged by focusing exclusively on the "objective" factors that bear on individuals' decisions to hold money. The erstwhile notion that the aggregate demand for money is directly and mechanically determined by various macro variables, such as total real output, in conjunction with the factors influencing the "velocity" of money, such as the payments habits of the community, the degree of integration of production processes, the state of development of credit and clearing institutions, etc., was long ago shown to be inconsistent with the choice-theoretic foundations of modern economic theory.

In the late 19th century, Carl Menger and Leon Walras pioneered the development of the microeconomic cash-balance approach to the demand for money, which explains the aggregate demand for money by tracing it back to the conscious and subjective decisions of individuals to hold a portion or balance of their wealth in the form of ready money.⁵ As D.H. Robertson rightly points out, this conception of the demand for money "brings us into touch with the operations of human minds, instead of attaching the notion of demand to a stream of inanimate commodities."⁶ In uncovering the subjective roots of the demand for money in what Menger referred to as the individual's "need for money" or what Walras called "*encaisse désirée*" (the desired cash holding), the cash-balance approach correctly places the demand for money on the same footing as the demands for all other goods in the economy.

Elaborating upon the Menger-Walras approach, Mises later demonstrated the serious inadequacies of an approach to the demand for money that fails to take account of individual choices and the subjective valuations and estimations upon which they are based.

If we wish to arrive at a description of the demand for money of an individual we must start with the considerations that influence such an individual in receiving and paying out money.

⁵For a discussion of the contributions of Menger and Walras to the development of the cash-balance approach to the demand for money, see Charles Rist, *History of Monetary and Credit Theory: From John Law to the Present Day*, Jane Degras, trans. (New York: Augustus M. Kelley Pub., 1966), pp. 345–53; on Menger, also see Karl Helfferich, *Money*, Louis Infield, trans. (New York: Augustus M. Kelley Pub., 1969), pp. 448–49; and Mises, *Theory of Money and Credit*, pp. 131–32.

⁶D.H. Robertson, *Money* (Chicago: University of Chicago Press, 1966), p. 28.

Every economic agent is obliged to hold a stock of the common medium of exchange sufficient to cover his probable business and personal requirements. The amount that will be required depends upon individual circumstances. It is influenced both by the custom and habits of the individual and by the organization of the whole social apparatus of production and exchange.

But all of these objective factors always affect the matter only as motivations of the individual. They are never capable of a direct influence upon the actual amount of his demand for money. Here, as in all departments of economic life, it is the subjective valuations of the separate economic agents that are alone decisive. The store of purchasing power held by two such agents whose objective circumstances were identical might be quite different if the advantages and disadvantages of such a store were estimated differently by the different agents.⁷

Once the subjective foundations of the demand for money are thus established, it becomes obvious that the knowledge problem facing government money managers is fundamentally no different from the problem of attempting to centrally plan the production of any good in the economy. In both cases, the central planners are unable to accurately and swiftly ascertain the information regarding the demand for their product, and thus to insure a proper supply to the economy, because they are deprived of the objective market test of profit and loss that guides the decisions and actions of private producers. In the case of money, supply decisions on the market are based on the profitability of gold mining in conjunction with the marginal revenue product or net return yielded by a unit of gold in nonmonetary employments. There are simply no comparable nonmarket criteria available to political money managers that would permit them to objectively and accurately gauge the public's demand for their product.

In short, any scheme for politicizing and centralizing the decisions regarding the supply of the social medium of exchange is in fact merely a special application of the general case for the centralized planning of any sector of the economy and shares the widely-recognized defect of this case: The inability to contrive a serviceable replacement for the price system to rapidly and efficiently communicate massive amounts of widely scattered information to the planners.

The informational problem that emerges when the political authorities usurp the market's function of supplying money has long been recognized by proponents of a hard-money gold standard. Perhaps

⁷Mises, *Theory of Money and Credit*, p. 132.

the first to fully and clearly articulate it was the neglected bullionist monetary theorist, Lord King. In 1803, King wrote: “[T]here is no method of discovering *a priori* the proportion of the circulating medium which the occasions of the community require; . . . it is a quantity which has no assignable rule or standard; and . . . its true amount can be ascertained only by the effective demand.”⁸

In the latter half of the 19th century, William Stanley Jevons also exposed the inadequacies of a political money-supply rule and strongly and incisively affirmed the crucial role of the market in discovering and providing the proper quantity of money.⁹ After describing the factors that cause unpredictable variations in the demand for money, Jevons concluded: “[T]he only method of regulating the amount of the currency is to leave it at perfect freedom to regulate itself. Money must find its own level like water, and flow in and out of a country, according to fluctuations of commerce which no government can foresee or prevent . . .”¹⁰

Jevons strongly opposed all paper currency that was not 100 percent backed by gold reserves:

[T]he paper circulation should be made to increase and diminish with the amount of gold deposited in exchange for it. At the same time, no thought need to be taken about the amount so issued. The purpose of the strict regulation is not to govern the amount, but to leave that amount to vary according to the natural laws of supply and demand. In my opinion, it is the issue of paper representative notes, accepted in place of coin, which constitutes an arbitrary interference with the natural laws governing the variations of a purely metallic currency . . .¹¹

This aspect of the case for hard money was neatly summed up recently in F.A. Hayek’s statement that “no authority can beforehand ascertain, and only the market can discover, the ‘optimal quantity of money.’”¹²

Let me now turn to the second or “negative” aspect of the hard-money case. This derives from the insight that ceding to the political

⁸Lord King, *Thoughts on the Effects of the Bank Restrictions*, 2nd ed. (London, 1804), p. 27.

⁹See W. Stanley Jevons, *Money and the Mechanism of Exchange* (New York: D. Appleton and Co., 1899), pp. 307, 327–28.

¹⁰*Ibid.*, pp. 332–33.

¹¹*Ibid.*, pp. 334–35.

¹²F.A. Hayek, *Denationalisation of Money—The Argument Refined: An Analysis of the Theory and Practice of Concurrent Currencies*, 2nd ed. (London: Institute of Economic Affairs, 1978), p. 77.

authorities a legal monopoly for issuing money inevitably produces inflation. The reason for this is obvious. Indeed, it is a general lesson learned from history as well as common sense: Any group endowed with a legal monopoly over an area of the economy will not hesitate to employ that monopoly in the service of its own interests.

In the case of a government-monopolized paper fiat money, the creation of additional quantities of money is, for all intents and purposes, costless. At the same time, and especially in a modern democracy, there exist ample opportunities and incentives for the political authorities to exploit this monopoly. For example, monetary inflation supplies government with the additional funds needed to finance spending programs that “win votes” for the incumbent administration. Monetary inflation that proceeds via bank credit expansion also provides the “cheap money” needed to fuel a short-run expansion in investment, employment, and real output, again gaining popularity for the administration. Finally, an inflationary monetary policy yields fiscal windfalls to the political authorities by lightening their real debt burden and precipitating the phenomenon of “bracket creep,” which permits an increase in tax revenues without the drawbacks of an overt increase in tax rates.

Moreover, since the process of inflating the money supply through modern monetary and financial institutions is little understood by the public, the government can dodge responsibility for the undesirable consequences of inflation, such as the erosion of people’s real income and wealth. Scapegoats like OPEC, monopolistic corporations, avaricious labor unions, spendthrift consumers, and unfavorable weather conditions are always at the politicians’ disposal. In sharp contrast, financing deficits by taxation is much less popular because the costs are obvious.

In light of this analysis, it is surely not unreasonable to characterize governments as inherently inflationary institutions. The proponents of hard money thus tout the gold standard as the one and only sure cure for inflation, because it is the only monetary regime that completely separates government from money. The abolition of the government monopoly of issuing money effectively rids the economy of the powerful stimulus to money supply growth that emanates from the natural political propensity to inflate. Under a free-market commodity money such as a genuine gold standard would provide, the aggregate quantity of money in the economy is completely determined by the actions of decentralized, market-oriented firms and individuals whose supply decisions are constrained by the necessity of investing scarce and, hence, costly resources in digging up addi-

tional amounts of gold or in transferring existing stocks of gold from nonmonetary to monetary employments. With the production of the money-commodity governed solely by the market forces of demand and costs of production, the value of the monetary unit is fully secured against arbitrary political manipulations of the quantity of money.

The monopolistic and inflationary exploitation of the public that necessarily results from granting to any institution exclusive privileges in supplying money was clearly recognized early on in the development of monetary thought, once again by Lord King. King argued that any "exclusive privilege" in issuing bank notes granted to the Bank of England "would be as unjust and impolitic as to grant a monopoly of any other branch of skill and industry to any private merchant or company."¹³ He further contended that the legal privilege to refuse payment of their notes in specie, which was conferred upon the Banks of England and Ireland by the Restriction Act of 1797, had led to an inflation of the bank notes of those institutions that benefited their owners at the expense of the general public.

Anticipating modern monetary theorists, King characterized inflation as a tax on cash balances. He noted that during a depreciation of paper currency, occasioned by an inflation, "an indirect tax is . . . imposed upon the community, not for the benefit of the public, but of individuals. It is levied in the most pernicious manner; and is of all taxes the least productive in proportion to the loss and inconvenience sustained."¹⁴

Later classical monetary theorists for the most part were well-schooled in the hard-money lessons taught by Lord King. One prominent example is Nassau Senior, who recognized King's writings as the *locus classicus* of the hard-money case for a metallic money. Senior contended that "Lord King's Essay . . . contains so full, and in the main so true, an exposition of the Theory of Paper Money, that after forty years of discussion, there is little to add to it, or correct."¹⁵ Senior formulated what he dubbed "Lord King's principle": "Paper Currency can be kept at a value equal to that of the coin which it represents, only 'by being immediately convertible into specie at the option of the holder' The power to issue inconvertible paper has never been granted or assumed without being sooner or later abused."¹⁶ Henry D. McLeod later referred to "Lord King's Law of

¹³King, *Thoughts on the Effects of the Bank Restrictions*, p. 111.

¹⁴*Ibid.*, p. 70.

¹⁵Nassau Senior, Review of *A Selection from the Speeches and Writings of the Late Lord King*, *Edinburgh Review* (October 1846), p. 168.

¹⁶*Ibid.*, p. 169.

Paper Money,"¹⁷ and Francis A. Walker referred to "Lord King's doctrine."¹⁸

In the early 20th century, Mises summarized the classical anti-inflationist argument for the gold standard:

The reason for using a *commodity* money is precisely to prevent political influence from affecting directly the value of the money unit . . . gold is the standard money primarily because an increase or decrease in the available quantity is independent of the orders issued by political authorities. The distinctive feature of the gold standard is that it makes changes in the quantity of money dependent on the profitability of gold production.¹⁹

Almost 50 years later, with the government-manipulated, pseudo-gold standard of the Bretton Woods system racked by inflationary spasms and on the verge of collapse, Mises vigorously restated the case for gold; the main point being "that the gold standard alone makes determination of the monetary unit's purchasing power independent of the ambitions and activities of dictators, political parties and pressure groups."²⁰

This pro-gold argument has been accepted even by those who believe that in theory the ideal monetary system consists of a pure fiat money whose quantity is completely subject to the discretionary control of the political authorities. This was true, for example, of the eminent German monetary economist, Karl Helfferich. In his classic work on *Money*, first published in 1903, Helfferich wrote that under a metallic standard, "the value of money is exposed to inherent influences which cannot be regulated by any plan." He argued that paper currencies, in contrast, provide "an organisation of money which . . . appears to place the control over the value of money in the hands of the State. In such an organisation, the supply of currency is not dependent on phenomena which are more or less beyond our powers . . . The very nature of such an organisation of money would make it appear to have, at all times, absolute equilibrium between the supply of and demand for currency, and so to secure stability of

¹⁷H.D. McLeod, "A History of Banking in Great Britain," in H.D. McLeod et al., *A History of Banking in All the Leading Nations*, 2 vols. (New York: Journal of Commerce and Commercial Bulletin, 1896), 2:20; also McLeod, *The Principles of Economical Philosophy*, 2 vols., 2nd ed. (London: Longmans, Green, Reader and Dyer, 1875), 2: 303-304.

¹⁸Francis A. Walker, *Money* (New York: Augustus M. Kelley Pub., 1968), p. 352.

¹⁹Mises, *On the Manipulation of Money and Credit*, Bettina Bien Greaves, trans. (Dobbs Ferry, N.Y.: Free Market Books, 1978), p. 22.

²⁰Mises, *On Current Monetary Problems* (Lansing, Mich.: Constitutional Alliance, Inc., 1969), p. 30.

value, with the complete independence of the currency from any economic phenomena." Thus, for Helfferich, "Both justice and public interest, as well as the historical development of money, seem to point to a paper currency pure and simple [i.e., pure fiat currency] as the ideal organisation of money."²¹

Having revealed himself as a proto-monetarist in theory, Helfferich nevertheless held that "the connection of the value of money with one of the precious metals will continue as the most desirable and the normal state of affairs."²² He gave two reasons for this. First, there is "the insufficiency of our knowledge" regarding what criterion should be employed by the monetary authorities in attempting to discover the direction and degree of variation in the demand for money. (Helfferich considered and dismissed both an early price-index rule and a pre-Keynesian interest-rate rule for guiding monetary policy.) Second, and "at least as important" as the knowledge problem for Helfferich, are the undesirable yet inevitable consequences of granting any institution monopolistic control over the value of the monetary unit. According to Helfferich, this second problem consists in the fact that changes in the supply of fiat money are not conditioned solely by "the requirement of the monetary system" but often by "the money hunger of the State."²³

Helfferich emphasized, therefore, that "the demoralization of economic and of social life" occasioned by unstable money could be minimized only "by placing the value of money in a position of dependence upon one of the precious metals, the value of which is not within the sphere of influence of the economic parties, and the properties of which give a greater guarantee of security for an approximate stability of its value than has so far been observed in any other commodity."²⁴ Richard E. Wagner has recently expressed this facet of the case for hard money within the context of public choice theory.²⁵

That a genuine gold standard may serve as an effective bulwark against the political propensity to inflate has not been lost on the opponents of gold. A prominent example is Milton Friedman, who has long held that

[i]f money consisted wholly of a physical commodity . . . in principle there would be no need for control by the government at all. . . .

²¹Helfferich, *Money*, pp. 619–20.

²²*Ibid.*, p. 620.

²³*Ibid.*, p. 530.

²⁴*Ibid.*, p. 621.

²⁵Richard E. Wagner, "Boom and Bust: The Political Economy of Economic Disorder," *Journal of Libertarian Studies* 4 (Winter 1980): 12–14.

If an automatic commodity standard were feasible, it would provide an excellent solution to the liberal dilemma of how to get a stable monetary framework without the danger of irresponsible exercise of monetary powers. A full commodity standard, for example, an honest-to-goodness gold standard in which 100 per cent of the money consisted literally of gold, widely supported by a public imbued with the mythology of a gold standard and the belief that it is immoral and improper for government to interfere with its operation, would provide an effective control against government tinkering with the currency and against irresponsible monetary action. Under such a standard, any monetary powers of government would be very minor in scope.²⁶

Of late, a number of well-recognized authorities on monetary theory and policy have called attention to the anti-inflationary implications of the gold standard that are to be drawn from theory and history. For example, Robert J. Barro concludes in a recent study that "In relation to a fiat currency regime, the key element of the commodity standard is its potential for automaticity and consequent absence of political control over the quantity of money and the absolute price level. . . ." Barro also notes that "the gold standard actually prevailed for a substantial period . . . whereas the world has yet to see a fiat currency system that has obvious 'stability' properties."²⁷

William Fellner affirms that there is a "substantial element of truth involved in the assertion that fiat money has been misused in all history—has always led to the corruption of the currency." Moreover, according to Fellner, "as an element of a package involving essentially noninflationary demand management, gold convertibility did play an important role in the past . . . [and] when conditions under inconvertible currencies deteriorated far enough, countries usually coupled a return to healthier monetary conditions with a return to the convertibility of paper money."²⁸

Finally, Herbert Stein has recently commented that "one can hardly imagine a hyperinflation and all its attendant uncertainties going on while the government honored a commitment to sell gold at a fixed price. Some versions of a gold standard may, therefore, be useful . . .

²⁶Milton Friedman, "Should There Be an Independent Monetary Authority?" in Leland B. Yeager, ed., *In Search of a Monetary Constitution* (Cambridge, Mass.: Harvard University Press, 1962), pp. 220–22.

²⁷Robert J. Barro, "Money and the Price Level Under the Gold Standard," *Economic Journal* 89 (March 1979): 31.

²⁸William Fellner, "Gold and the Uneasy Case for Responsibly Managed Fiat Money," in Fellner, ed., *Essays in Contemporary Economic Problems: Demand, Productivity, and Population* (Washington, D.C.: American Enterprise Institute, 1981), p. 99.

to provide assurance that there is a limit beyond which inflation will not go."²⁹

III. The Basic Characteristics of a Genuine Gold Standard

Such qualified expressions of sympathy for gold as a potentially useful device for restraining the more flagrant excesses of the political control of money hardly constitute an endorsement of the overall traditional case for the gold standard. For implicit in the case I have elaborated above is a vision of an ideal monetary system in which *government is totally and permanently debarred from manipulating the supply of money*. Under the ideal hard-money regime, the composition, quantity, and value of the money-commodity is determined exclusively by market forces. In fact, strictly speaking, the advocate of hard money does not favor a gold standard per se, but endorses whatever commodity is chosen by the market as the general medium of exchange. The hard-money program tends to be couched in terms of the gold standard because gold represents the money that emerged in the past from a natural selection process of the free market that spanned centuries.

With this caveat, I now turn to the characteristics of a "real" or "genuine" gold standard as this is construed within the context of the traditional case for gold. The defining characteristic of such a monetary system has been incisively identified by Milton Friedman. In his words, "A real, honest-to-God gold standard . . . would be one in which gold was literally money, and money literally gold, under which transactions would literally be made in terms either of the yellow metal itself, or of pieces of paper that were 100 per cent warehouse certificates for gold."³⁰

Thus, under a genuine gold standard, the monetary unit is, in fact as well as in law, a unit of weight of gold. This is the case whether the monetary unit bears the name of a standard unit of weight, such as a "gram" or "ounce," or whether it bears a special name, like "dollar" or "franc," that designates specifically a standard weight of the money-commodity.

²⁹Herbert Stein, quoted in Alan Reynolds, "Honest Money," *Reason: Free Minds and Free Markets* 14 (January 1983): 30.

³⁰Friedman, "Has Gold Lost Its Monetary Role?" in Meyer Feldberg, Kate Jowell, and Stephen Mulholland, eds., *Milton Friedman in South Africa* (Johannesburg, South Africa: The Graduate School of Business of the University of Cape Town and The Sunday Times, n.d.), p. 34 (Friedman's address was given at the University of Cape Town, April 2, 1976.)

While it is true that certain types of government intervention in the monetary system are consistent with the basic criterion of a genuine gold standard, it is equally true that no particular government policy is essential to the operation of this monetary standard. Indeed, as Friedman notes, "If a domestic money consists of a commodity, a pure gold standard or cowrie bead standard, the principles of monetary policy are very simple. There aren't any. The commodity money takes care of itself."^{31,32}

Under the quintessential hard-money regime, therefore, the money-supply process is totally privatized. The mining, minting, certification, and warehousing of the money-commodity are undertaken by private firms competing for profits in an entirely unrestricted and unregulated market. The money supply consists of gold in various shapes and weight denominations and claims to gold, in the form of paper notes or checkable demand deposits, that are accepted in monetary transactions as a substitute for the physical money-commodity. These money substitutes are literally warehouse receipts that are redeemable for gold on demand at the issuing institutions, which hold a specifically earmarked reserve of gold exactly equal in amount to their demand liabilities. Barring fraud or counterfeiting, the total supply of money in the economy is therefore always equal to the total weight of gold held in the money balances of the nonbank public and in the reserves of the banks.

The total supply of money in conjunction with the total demand of the public for money balances determine the value or purchasing power of money in terms of other goods and services on the market. Thus, for example, if the demand for money increases while the supply of money remains unchanged, the purchasing power of money rises. That is to say, the alternative quantities of goods and services for which a given unit of money, such as an ounce of gold, exchanges

³¹Friedman, "Monetary Policy: Theory and Practice," *Currency Competition*, October 1982, p. 2.

³²For works detailing the nature and operation of a pure commodity money, see: Rothbard, "The Case for a 100 Per Cent Gold Dollar," in Yeager, *In Search of a Monetary Constitution*, pp. 94-136; Rothbard, *Man, Economy, and State: A Treatise on Economic Principles*, 2 vols. (Los Angeles: Nash Publishing, 1970) 2:661-764; idem, *What Has Government Done to Our Money?* (Novato, Cal.: Libertarian Publishers, 1978); Friedman, "Real and Pseudo Gold Standards," in *Dollars and Deficits* (Englewood Cliffs, N.J.: Prentice-Hall, 1968), pp. 247-65; idem, *Essays in Positive Economics* (Chicago: The University of Chicago Press, 1970), pp. 206-10; idem, *A Program for Monetary Stability* (New York: Fordham University Press, 1959), pp. 4-9; idem, "Should There Be an Independent Monetary Authority," in Yeager, *In Search of a Monetary Constitution*, pp. 220-24; Mark Skousen, *The 100 Percent Gold Standard: Economics of a Pure Money Commodity* (Lanham, Md.: University Press of America, Inc., 1980); Salerno, "The 100 Percent Gold Standard," pp. 458-74.

increase; or, obversely, the money prices of goods and services undergo a general fall. A rise in the purchasing power of money also results from a decrease in the supply of money in the face of an unchanged monetary demand. On the other hand, a decline in the demand for money or an augmentation of its supply, other things remaining equal, brings about a decrease in the purchasing power of the monetary unit manifested in a general rise of money prices in the economy.

Like the purchasing power of money, the quantity of money itself is governed purely by the market conditions affecting the overall demand for and supply of gold. These include the total demand for gold for monetary and nonmonetary uses and the monetary costs involved in producing gold. A change in either factor brings about a change in the supply of money in the economy.

To see how this occurs, let us begin from a position of equilibrium in which the supply of and demand for money, and hence its purchasing power, are constant. In this situation, gold-mining firms maximize monetary profits by producing a quantity of gold per year just equal to the annual amount allocated to nonmonetary uses plus the amount used up or destroyed in monetary employment during the course of the year as a result, e.g., of wear and tear. In this equilibrium situation the net return to a unit of gold, say an ounce, employed in industrial production processes tends to be equal to an equivalent weight of monetary gold.

An improvement in the technology of mining gold or the discovery of new, more accessible sources of gold destroys this initial equilibrium by lowering the costs and thereby increasing the profitability of gold production, resulting in an increased annual output of gold. With an unchanged demand for money, the larger supply of the money-commodity exerts an upward pressure on prices that reduces the purchasing power of money, as each gold ounce now purchases fewer goods and services on the market.

The general rise of prices in the economy includes the prices of goods in whose production gold enters as an input, such as jewelry, dental filling, and various electronic products. The result is that a unit of gold employed in industrial processes now yields a net return in terms of monetary gold that is greater than its own weight, and this encourages entrepreneurs to allocate additional quantities of the metal to the production of various consumer and capital goods. The resulting increase in the supplies of these gold products eventually drives their prices down and wipes out the discrepancy between the value of gold in monetary and nonmonetary uses. The absorption of part of the new gold in nonmonetary uses thus serves to temper the

effect of the increased output of gold on the money supply. Nonetheless, in the new equilibrium, the supply of monetary gold will have risen, producing a general increase in prices or reduction in the purchasing power of money.

In the opposite case, in which the costs of producing the monetary metal increases, due for instance to a depletion of the most accessible gold ore deposits, the result is a reduction in the annual rate of production of gold. In the long run, this reduction entails a contraction of the industrial uses of gold as well as a decline in the money supply and, hence, a general fall in prices or rise in the purchasing power of money.

While changes in the monetary costs of producing gold, therefore, do have an effect on the money supply, this effect tends to be minimal. The reason is that gold is an extremely scarce as well as a highly durable commodity, and its annual production tends to be a tiny proportion of the existing stock. As a result, even relatively large reductions or increases in the costs of producing gold will not cause great short-term fluctuations in the supply of money.

The quantity of money also responds to forces operating on the demand side. For instance, an increase in the demand for money, other things constant, effects a general lowering of prices in the economy, including lower prices for the resources employed in mining gold. Consequently, the production of gold is rendered more profitable relative to the production of other goods and services. Entrepreneurs respond by increasing the rate of production from currently operational mines, by reopening old mines whose continued operation had become unprofitable, and by initiating the exploitation of known but previously submarginal deposits of gold. They also increase investment in the search for new sources of gold and in the development of new and less costly methods of extraction. Furthermore, the higher monetary value of gold gives individuals an incentive to shift additional amounts of existing gold from industrial and consumption uses to monetary employments. Thus, an increase in the market demand for money, which is initially satisfied by an increase in the purchasing power of the monetary unit, calls forth a gradual expansion of the supply of money that tends, in the long run, to offset the initial decline in prices and to restore the purchasing power of money toward its original level.

Conversely, a fall in the demand for money causes a general rise in prices and, in the process, drives up the costs associated with digging up gold. As higher costs reduce the profit margins of gold-mining firms, the production of the metal tends to fall off. Also, the general price rise in the economy spreads to all industrial inputs,

including gold, and this stimulates a shift of some units of gold out of money balances and into industrial employments. The operation of these forces eventually results in a contraction of the supply of money that tends to reverse the initial rise of prices and re-establish the original purchasing power of the monetary unit.

The foregoing analysis of the factors governing the quantity and purchasing power of money under a pure commodity standard permits us to lay to rest two persistent and related objections to the gold standard.

The first criticism is that the supply of gold and, therefore, of money is determined "arbitrarily," since it depends on such fortuitous factors as discoveries of new mines and technological improvements in the methods of extraction. This is surely a curious, if not vacuous, use of the term "arbitrary" since the supplies of oil, copper, wheat, and for that matter, of all goods produced on the market, are influenced by changes in the availability of the natural resources required in their production as well as by advances in technology. Moreover, in the specific case of gold, purely fortuitous discoveries of new gold deposits and of improved methods of extraction have long ceased to have a significant effect on the annual output of gold. The regularization of gold production has resulted from the operation of the market itself. In a pathbreaking but unduly neglected article on "Causes of Changes in Gold Supply,"³³ Frank W. Paish observed:

[T]he power of economic forces to accelerate or delay the exhaustion of existing deposits, and to promote or discourage the discovery of new ones, is now so great that changes in the output of gold are now much less 'accidental' and much more 'induced' than they were half a century ago. To-day, indeed, there is no reason to assume that the output of gold is less sensitive to changes in costs than is the output of other commodities.³⁴

The second charge frequently brought against the gold standard is that it cannot provide for the monetary needs of a growing economy. Increases in the supply of money, it is alleged, are necessary to finance the purchases of the increasing quantities of goods and services resulting from economic growth. The gold standard cannot be depended on to produce the required additions to the money supply at the right times or in the right proportions. The consequence of such monetary deficiency is a stunting of economic growth or possibly even a precipitous depression.

³³F.W. Paish, *The Post-War Financial Problem and Other Essays* (London: Macmillan & Co. Ltd., 1950), pp. 149-86.

³⁴*Ibid.*, p. 151.

However plausible, this line of reasoning is untenable because it ignores the supply-and-demand mechanism operative in a free market for money. As we saw above, the market insures that *any* quantity of money is capable of performing all the work required of a medium of exchange by adjusting its purchasing power to the underlying conditions of supply and demand. The increasing stocks of goods which sellers seek to exchange for money in a growing economy represent an overall increase in the demand for money. Thus, if the quantity of money remains unchanged in the face of a growth in real output, the result is a general bidding down of prices in the economy, and a corresponding increase in the purchasing power of money. With each unit of money now capable of doing more work in exchange, the same quantity of money suffices to finance the increased volume of transactions.

But this is by no means the end of the process. The general decline in prices brought about by the increased demand for money directly stimulates growth in the money supply. On the one hand, it renders gold mining more profitable. On the other, it causes a fall in the value of gold in industrial uses. The result is a flow of additional gold into the money balances of the public from these two sources. This expansion of the money supply tends to mitigate the fall of prices in the economy. Under a genuine gold standard, then, the growth in real output tends to naturally call forth additions to the money supply.

Finally, let me turn my attention to an objection raised specifically against the 100 percent gold standard, usually by proponents of a gold-based private fractional reserve, or "free" banking system. It is alleged by these critics that the 100 percent reserve requirement for banks represents an arbitrary interference with a truly free-market banking system, wherein considerations of profit and loss would dictate the fraction of its demand liabilities that a bank keeps on hand in gold.

The basic problem with this allegation is that it confuses two very different types of institutions. The first type, let us call it a "bank," operates directly on the money supply. The second, which I shall call a "money market mutual fund" for lack of a better term, influences the money supply only indirectly through its impact on monetary demand. Both of these institutions could and probably would exist as the product of purely private contractual arrangements consistent with a free-market monetary regime. It is the identification of the precise nature of these contractual arrangements that is the key issue here.

In the case of a bank, the 100 percent reserve requirement is not arbitrarily imposed from outside the market, but is dictated by the

very nature of the bank's function as a money warehouse. Now, we may not wish to use the name "bank" to designate such an institution, but that is beside the point.

What is important is that if people generally perceived a need, for whatever reason, to store a portion of their money balances outside their own households or businesses, entrepreneurs would invest in the establishment of money warehouses on the free market. For a competitively determined price, such a firm would accept gold deposits and store them under conditions stipulated in the contractual agreement entered into with the depositors. This transaction is not a credit transaction. The depositors' gold is not *loaned* to the money warehouse to dispose of as it sees fit (for a stipulated period of time) but rather is *bailed* to it for the specific purpose of safekeeping. Under the terms of a bailment, the bailor surrenders physical possession of his property to the bailee for a stipulated purpose. Should the bailee use or dispose of the property for any but the specific purposes stipulated in the bailment contract, he would be violating the contract and committing fraud against the bailor.

Thus, a money warehouse operating on the free market is contractually obligated to always maintain in its vaults the entire amount of its depositors' gold. Loaning part of it out at interest to a third party obviously constitutes an infringement of its contractual agreements.

Now things do not change just because the warehouse receipts or money certificates issued by the firm to its depositors, which entitle them to take physical possession of their gold as per terms of the contract, come to be used as money substitutes in exchange. Should the money warehouse print up and loan out additional quantities of (pseudo-) receipts and then honor them by paying out its depositors' gold, it would still be *defrauding them even if it took due care* to always maintain a reserve of gold more than adequate to meet all their calls for redemption. In the same way, a tailor would be defrauding a customer who left a tuxedo with him to be altered if he rented it out to a third party, even though the tailor took special precautions to insure the tuxedo's availability when the owner showed up with his claim check.

In short, under a free-market monetary regime, banks are required to hold a 100 percent gold reserve for their notes and demand deposits, precisely because these are the contractual terms on which such money-substitutes are issued. In this respect, free-market banks are under the same legal obligations as armored car companies in today's economy. Money is bailed to the latter for the performance of the specific tasks of transportation and temporary storage. I doubt if anyone would seriously suggest that the legal requirement that these

companies retain in their physical possession the full amount of money for which they have issued receipts constitutes an arbitrary intervention into the free market.

But there is a second type of nonbank institution that would very likely develop and flourish in an unrestricted market for monetary and financial services and that could have a significant, although indirect, effect on the supply of money. The prototype of this institution is the current money market mutual fund.

Unlike banks qua money warehouses, money market funds are not in the business of storing money. Their contractually specified function is to manage a short-term, fixed-income asset portfolio for their investors or shareholders. In effect, each shareholder has title not to a specific sum of money but to a pro rata share of the asset portfolio. Money market fund shares, therefore, are not ownership claims to money but to nonmonetary financial assets that are, for all intents and purposes, maturing daily. Checks written on money market funds are simply orders to the fund's managers to liquidate a specified portion of the investor's share of the portfolio and to pay a third party according to the terms of the contractual agreement between the fund's managers and shareholders.

Under a free-market monetary system, money market funds would not be legally obliged to maintain 100 percent gold reserves or any reserves at all because of the specific contractual arrangements under which they exist and operate. It may be the case, however, that some funds, possibly to appeal to the more risk-averse members of the public, offer investment portfolios containing a significant proportion of money or warehouse receipts for money. For example, a fund may feature a portfolio that is 20 percent invested in monetary gold. The managers of the fund would then be contractually obligated to always maintain 20 percent of the fund's assets in the form of gold. Whether or not one wishes to refer to such an institution as a "fractional-reserve" bank is not the crucial issue. The important thing for the advocate of a genuine, 100 percent gold standard is that this financial arrangement is, in fact, purely the product of a private contractual agreement and therefore consistent with a free market in money.

In the case of a money market fund whose assets are partially in the form of money, its shares represent ownership claims to money balances as well as to nonmonetary financial assets. The fund, in effect, is a hybrid institution operating partly as a money warehouse or bank. Its money assets should therefore be imputed on a pro rata basis to the money balances of its individual shareholders and the total counted in the aggregate money supply.

Not only are money market funds, of the pure or hybrid type, fully

in accord with the principles of a genuine gold standard, but, in a denationalized monetary regime, it is not difficult to envision their shares becoming the predominant means of payment in the economy. This would bring about a precipitous fall in the demand for money, and hence for gold in monetary use, and the eventual reallocation of most of the monetary gold stock to nonmonetary employments. Taken to its extreme, this development would result in only a minute fraction of the existing gold stock remaining in monetary employment solely as a means for clearing balances between money market funds, whose shares are the only means of payment utilized by the general public.

While I would not expect this extreme scenario to play itself out, it illustrates how market forces might operate to reduce the much-lamented "resource cost" of a genuine gold standard. Only in this case, as opposed to that of a government-monopolized paper fiat currency, the cost saving is genuine, because it is produced by the voluntary choices of market participants.

IV. The Case for a Gold Price Rule

In sharp contrast to the proponents of a genuine gold standard, who seek to put an end to government monetary policy by completely denationalizing the money-supply process, it is the intent of the advocates of a gold price rule to integrate gold into existing fiat-money arrangements in such a way as to improve the conduct of government monetary policy.

For example, economist Alan Reynolds, a staunch supporter of a monetary policy based on a gold price rule, argues: "The purpose of the gold standard is to improve the efficiency and predictability of monetary policy by providing a flexible signal and mechanism for balancing the supply of money with the demand for money at stable prices."³⁵ Elsewhere Reynolds writes: "The central issue, however, is whether monetary policy is to be judged by clumsy tools, like M1, or by results. When sensitive prices [e.g., the price of gold] are falling, money is too tight; when prices are rising, money is too loose."³⁶

Two other prominent supporters of a gold price rule, Arthur Laffer and Charles Kadlec, state that "The purpose of a gold standard is not to turn every dollar bill into a warehouse receipt for an equivalent

³⁵Reynolds, *Testimony before the United States Gold Policy Commission*, Political and Economic Communications (Morristown, N.J.: Polyconomics, Inc., 1981), p.15.

³⁶Reynolds, "The Monetary Debate," p. 26.

amount of gold, but to provide the central bank with an operating rule that will facilitate the maintenance of a stable price level."³⁷

Representative Jack Kemp contends: "The new target of monetary policy should be some proxy for the price level. . . . The discount rate mechanism will help because it permits the supply of money to conform to the demand for money in the short term. This would avoid the big unnecessary swings in interest rates and output caused by the quantity rule. But the point is to target a stable price level not interest rates."³⁸

Finally, according to Jude Wanniski: "The object of stabilizing the gold price is not inflation or deflation, but the restoration of a stable unit of account. . . . [M]oney is an idea, a standard, a unit of account that must remain constant in value, regardless of the number of units in supply."³⁹

What is of overriding significance in the foregoing passages is the explicit or implicit characterization of the gold standard as a "mechanism" deliberately designed to implement specified policy goals, such as a "stable price level," that are aimed at by the government money managers. For it is the underlying conception of the nature and role of money, which is implied in this portrayal of the gold standard, that ultimately and irreparably divides the modern from the traditional advocates of a gold-based monetary regime. I shall make this point in greater depth after I spell out why the gold price rule is not a genuine gold standard.

Friedman has aptly characterized a pseudo-gold standard as "a system in which, instead of gold being money and thereby determining the policy of the country, gold was a commodity whose price was fixed by governments."⁴⁰ While Friedman is referring here to the international monetary system between 1934 and 1971, his characterization applies to the various proposals for a monetary regime based on a gold price rule. In fact, proponents of the gold price rule have themselves pointed to the Bretton Woods system as the historical embodiment of the essence of their proposal.⁴¹

Basically, under a gold price rule, the Fed is charged with fixing the dollar price of gold. However, gold itself is not money but the

³⁷Arthur B. Laffer and Charles W. Kadlec, "The Point of Linking The Dollar to Gold," *Wall Street Journal*, October 13, 1981, p. 32.

³⁸Kemp, "The Renewal of Western Monetary Standards," p. 32.

³⁹Jude Wanniski, "The Interest-Rate Mystery," *Wall Street Journal*, April 2, 1982, p. 22.

⁴⁰Friedman, "Has Gold Lost Its Monetary Role?," p. 36.

⁴¹For examples, see Kemp, "The Renewal of Western Monetary Standards," p. 32; and Mundell, "Gold Would Serve into the 21st Century," p. 32.

“external standard” whose price the Fed is to fix in terms of the existing fiat dollar. Nor is it necessary that the Fed itself directly buy and sell dollars for gold to maintain the fixed gold price. The “intervention asset,” that is, the asset which the Fed trades on the market for gold, may just as well be U.S. government securities or foreign exchange or any commodity. All that is required of the Fed is that it sell some assets for dollars on the open market when the price of gold rises, thus deflating the supply of money and bringing the gold price back to its “target” level. If the price of gold begins to fall, the Fed is to purchase gold or other assets on the market, creating an inflation of the supply of dollars that drives the price of gold back up to its target level.

By using the gold price as a proxy for the general price level, the advocates of a price-rule regime thus hope to stabilize the purchasing power of the fiat dollar. While some of its supporters have made vague references to the desirability of getting gold coin into circulation,⁴² it is clear that the gold price rule is not meant to provide a genuine gold money.

In fact, gold itself need not play any role at all in the price-rule regime. As Arthur Laffer and Marc Miles point out, the external standard “could be a single commodity or a basket of commodities (a price index).”⁴³ Indeed, recently there have been calls for the Fed to institute a price rule targeting an index of spot commodity prices.⁴⁴

Stripped of its gold-standard terminology, the price rule can be seen as a technique designed to guide the monetary authorities in managing the supply of fiat currency. It is thus very similar in nature, if not in technical detail, to the quantity rule advocated by the monetarists. This is clearly evident in Laffer and Miles’ admission that “in an unchanging world where all information is freely available, there of course would be a ‘quantity rule’ which would correspond to a given ‘price rule.’”⁴⁵

What may be called “price-rule monetarism,” then, is vulnerable to criticism on precisely the same grounds as the more conventional quantity-rule monetarism. The most serious criticism of both varieties of monetarism is that they fail to come to grips with the root cause of inflation, namely, the government monopoly of the supply

⁴²Mundell, “Gold Would Serve into the 21st Century,” p. 32; Laffer, *Reinstatement of the Dollar*, p. 7.

⁴³Arthur B. Laffer and Marc A. Miles, *International Economics in an Integrated World* (Oakland, N.J.: Scott, Foresman and Co., 1982), p. 399.

⁴⁴See Reynolds, “The Monetary Debate,” p. 26; and Laffer and Kadlec, “Has the Fed Already Put Itself on a Price Rule?” *Wall Street Journal*, October 28, 1982, p. 30.

⁴⁵Laffer and Miles, *International Economics in an Integrated World*, p. 401.

of money. The built-in inflationary bias of the political process virtually guarantees that both quantity and price rule targets will be ignored or revised when they become inconvenient to the government money managers.

We may appeal to history for evidence regarding the success of the gold price rule in staunching the flow of government fiat currency. We need look no further than the late, unlamented Bretton Woods system (1946–1971). Under this “fixed-exchange-rate” system, the U.S. monetary authority followed a gold price rule, buying and selling gold at an officially fixed price of \$35 per ounce. Foreign monetary authorities, on the other hand, pursued a dollar price rule, maintaining their respective national currencies convertible into dollars at a fixed price. According to Laffer and Miles, “as long as the rules of the system were being followed, the supplies of all currencies were constricted to a strict price relationship among one another and to gold.”⁴⁶

Unfortunately, “the rules of the system” were subjected to numerous and repeated violations and evasions, including frequent outright readjustment of the price rules, i.e., exchange-rate devaluations, when they became inconvenient restraints on the inflationary policies pursued by particular national governments. Needless to say, the Bretton Woods system did not prevent the development of a worldwide inflation which brought the system to its knees in 1968 and led to its final collapse in 1971.

V. Money: Policy Tool or Social Institution

From this brief overview of the gold price rule, it is evident that its proponents accept the currently prevailing view of money as a “tool” of government policy. According to this view, the monetary system is or ought to be deliberately and rationally constructed so as to promote as efficiently as possible the attainment of the various macro-policy goals sought by government planners. These policy goals are formulated and ranked in accordance with criteria that are developed independently of, and often in conflict with, the valuations and choices of market participants as these are expressed in the pattern of prices and quantities that spontaneously emerge in the free-market economy. From this standpoint, the degree to which a particular monetary policy is judged to be “optimal” depends on the extent to which it succeeds in altering the spontaneous microeconomic processes of the economy to yield macro-statistical outcomes that are consistent with the planners’ chosen policy goals.

⁴⁶Ibid., p. 260.

Thus, those who defend the gold standard on the basis of its superiority or optimality as a technique of monetary policy differ little from the supporters of fiat money in their mode of argumentation. Both sides direct their arguments almost exclusively to the question of what means, that is, what monetary policy, is best suited to achieve certain identifiable and quantifiable macro-policy goals whose desirability—except for possible differences regarding weighting and statistical expression—is not subject to dispute.

The widely accepted goals that a successful monetary policy is supposed to achieve include: the maintenance of a stable value of the monetary unit or, more accurately, of constancy in some selected price index, e.g., the CPI, the GNP deflator, or an index of spot commodity prices; the mitigation of cyclical fluctuations via the stabilization of various statistical aggregates and averages, such as the unemployment rate, the GNP index, the index of industrial production, and others; the maintenance of a high rate of secular growth in real output, once more as gauged by the behavior of selected statistical indicators; and stability of “real” interest rates.

Whether or not free-market processes should be modified in the service of such extramarket, macro-policy goals by government manipulation of the supply of money—that is, whether or not government should conduct a monetary policy at all—is obviously never addressed by those who explicitly regard money as a political tool deliberately and specifically fashioned for such a use.

In sum, the arguments of the policy-oriented advocates of gold are founded upon a presumption regarding the phenomenon of money which they share in common with their anti-gold opponents and which, as I shall argue, is emphatically rejected by hard-money advocates. This presumption is that money is a mechanism consciously designed and constructed to serve certain known purposes. These purposes are those of a small group of individuals acting in concert, namely government planners, and are therefore limited in number, subject to a unitary and consistent ranking, and capable of being readily communicated to those undertaking the design of the monetary system. Following Hayek, the attitude toward monetary institutions to which this presumption gives rise may be designated “constructivism.”⁴⁷

The constructivist approach to the nature and function of money

⁴⁷For illuminating critiques of the constructivist approach to social phenomena, see Hayek, “Kinds of Rationalism,” in idem, *Studies in Philosophy, Politics and Economics* (New York: Simon and Schuster, 1969), pp. 82–95; and idem, “The Errors of Constructivism,” in idem, *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978), pp. 3–22.

is logically bound up with a particular view of the origin of money. According to this view, money originated in an extramarket social agreement or legal fiat as a useful convention consciously designed to overcome the perceived problems and inefficiencies of direct exchange.

One of the early exponents of this conventionalist view of the origin of money was the classical monetary theorist David Hume. In an oft-quoted passage, Hume wrote: "Money is not, properly speaking, one of the subjects of commerce; but only the instrument which men have agreed upon to facilitate the exchange of one commodity for another. It is none of the wheels of trade: It is the oil which renders the motion of the wheels more smooth and easy."⁴⁸ Elsewhere Hume spoke of money as possessing "chiefly a fictitious value, arising from the agreement and convention of men . . ."⁴⁹

Modern monetary constructivists of the pro-gold or anti-gold variety find the Humean-conventionalist account of the genesis of money congenial because it lends support to their belief that monetary institutions can and should be purposefully molded in light of the policy goals that they are designed to serve. After all, if money was originally "invented" as a tool suited to perform certain tasks, then there should be no hesitation in redesigning it in order to improve its effectiveness in these tasks or to render it suitable for the performance of other, newly discovered tasks.

Traditional proponents of the gold standard reject, at least implicitly, this constructivistic view of money as a tool of policy. In its stead they offer a conception of money as a spontaneously generated and evolving social institution not "designed," in any meaningful sense of that term, nor serving any single purpose or unitary set of policy goals. From this perspective, money is an integral element of the market economy whose function is to assist in the coordination and attainment of a multitude of disparate and unarticulated goals being simultaneously pursued by individual participants in the monetary-exchange process. In this context, what is important is not the various macro-statistical outcomes of the process but the degree to which unspecified persons partaking in the process succeed in achieving goals chosen by and known only to themselves. The monetary-exchange process tends to facilitate success in this multiplicity of individual and decentralized, yet mutually conditioning, endeavors by encapsulating in current (and anticipated) money prices the enor-

⁴⁸David Hume, *Writings on Economics*, Eugene Rotwein, ed. (Madison, Wis.: The University of Wisconsin Press, 1970), p. 33.

⁴⁹*Ibid.*, p. 48.

mous amount of information necessary for any particular market participant to realize his purposes by adapting his own plans and activities to those of all other market participants.

Hayek counterposes this conception of money as a coordinative social institution to that of money as a tool of government policy:

A single monopolistic government agency can neither possess the information which should govern the supply of money nor would it, if it knew what it ought to do in the general interest, usually be in a position to act in that manner. Indeed, if . . . the main advantage of the market order is that prices will convey to the acting individuals the relevant information, only constant observation of the course of current prices of particular commodities can provide information on the direction in which more or less money ought to be spent. Money is not a tool of policy that can achieve particular foreseeable results by control of its quantity. But it should be part of the self-steering mechanism by which individuals are constantly induced to adjust their activities to circumstances on which they have information only through the abstract signals of prices. It should be a serviceable link in the process that communicates the effects of events never wholly known to anybody and that is required to maintain an order in which the plans of participating persons match.⁵⁰

The question that comes immediately to mind is how do we distinguish “good” money from “bad” money once we cease to regard it as a tool of policy and see it instead as a spontaneous social institution whose primary function is the coordination of decentralized plans in the marketplace. To fully answer this question requires an understanding of the manner in which money spontaneously originated from within the market economy itself.

In Carl Menger’s pathbreaking study, he demonstrated that money is an “organic” or “unintentionally created” social institution that is “the unintended result of innumerable efforts of economic subjects pursuing individual interests.”⁵¹ Menger concludes that “Money is not an invention of the state. It is not the product of a legislative act. Even the sanction of political authority is not necessary for its existence. Certain commodities came to be money quite naturally, as the result of economic relationships that were independent of the power of the state.”⁵²

Moreover, as Menger points out, numerous other socially benefi-

⁵⁰Hayek, *Denationalisation of Money*, p. 98.

⁵¹Carl Menger, *Problems of Economics and Sociology*, Louis Schneider, ed. and Francis J. Nock, trans. (Urbana, Ill.: University of Illinois Press, 1963), p. 158.

⁵²Menger, *Principles of Economics*, James Dingwall and Bert F. Hoselitz, trans. (New York: New York University Press, 1981), pp. 261–62.

cial institutions have evolved in precisely the same manner.⁵³ But such complex “organic” social institutions, including money, by virtue of their spontaneous formation and evolution, bear a close resemblance to the simpler economic phenomena that are also products of the operation of the market process and whose explanation is the recognized task of economic theory. In Menger’s words:

Law, language, the state, money, markets, all these social structures in their various empirical forms and in their constant change are to no small extent the unintended result of social development. The prices of goods, interest rates, ground rents, wages, and a thousand other phenomena of social life in general and of economy in particular exhibit exactly the same peculiarity. . . . understanding of them . . . must be analogous to the understanding of unintentionally created social institutions.⁵⁴

Thus, in sharp contradiction to the Humean-conventionalist view, the Mengerian view of the origin of money yields the key insight that money emerged in the course of the ages from within the market economy itself as a result of the countless decisions of market participants intent upon discovering the most efficacious means of achieving their individual purposes. Monetary exchange developed as the unintended yet necessary byproduct of actions which were undertaken by individuals in pursuit of their immediate aims but which nonetheless formed a coherent and sustainable pattern over time because such actions tended to insure to each individual greater success in the attainment of his goals. The institution of money was, therefore, not consciously contrived to serve a particular purpose; nor was the operation of the monetary-exchange process originally designed to yield specific ex post macro-statistical aggregates.

In light of the Mengerian explanation of the origin of money, the answer to the question of how a good money is to be discovered and implemented becomes quite obvious. The money which emerges on the market is precisely the money that is best suited to perform the social coordinating function of a general medium of exchange. It is the product of the natural selection process of the market, a process which brings to bear the experiences and knowledge of literally millions of human minds. To argue that such a market-chosen money *can and should be improved on* involves the heroic assumption that the myriads of individual transactors consistently and repeatedly erred in assessing the relative benefits and costs of alternative media of exchange. Furthermore, as Menger notes, the recurring formation

⁵³See Menger, *Problems of Economics and Sociology*, p. 157.

⁵⁴*Ibid.*, p. 147.

of market prices is like the origination of money in that they both result from the anonymous strivings of countless individuals that constitute the market process. If the market process therefore can be counted on to repeatedly discover and converge on the “right” prices for an almost infinite array of goods, this same process surely can be relied on to find and institute the “right” medium of exchange and to continually and correctly adapt this institution to changes in economic conditions.

It should be emphasized here that the basic point at issue between the monetary constructivists and those advocates of the gold standard who adopt a Mengerian perspective is not the normative one of whether money *ought* to be a tool of policy or an integral element of the market process but the existential one of whether money *is* one or the other. In affirming that money is in fact a market institution, hard-money advocates do not mean to deny that money can be subjected to political control, just as they would not wish to deny that market prices and interest rates can be controlled by the political authorities. Indeed, Menger himself pointed out that “legislative compulsion not infrequently encroaches upon this ‘organic’ developmental process [of money’s emergence] and thus accelerates or modifies the results.”⁵⁵ But this is precisely the crux of the hard-money case.

In the same way that price controls alter the “quality” of the affected prices, government monetary policy impinges on the “quality” of the institution of money. From the standpoint of market participants, a price that is subject to change only by bureaucratic fiat ceases to function effectively in providing relatively quick and accurate information regarding changes in present and future economic conditions as well as the incentives needed to induce actions in accordance with this information. An element of discoordination is thereby introduced into the market economy, and its most obvious (but not only) manifestation is the failure of the plans of buyers and sellers to match, as reflected in surpluses or shortages of the good in question.

Now, it may well be that the state of affairs that develops under the stimulus of the price control is, at least temporarily, consistent with government policy goals, as was the case in the United States during the “gasoline shortages” of the 1970s. Nevertheless, in terms of its social coordinating function, as opposed to its function as a policy tool, it is also quite clear that the controlled price is qualitatively inferior when compared to its free-market counterpart. Or, in other words, in attempting to deliberately transform a spontaneous

⁵⁵Ibid., p. 157.

market price into a tool for realizing their own extramarket objectives, government planners render it much less fit to serve the diverse and multitudinous ends pursued by market participants.

Analogously, when the political authorities arrogate to themselves a legal monopoly of issuing money, the character of the money-supply process undergoes a radical transformation. The government fiat-money managers are not in a position to receive the same information as free-market money suppliers pertaining to changes in the conditions affecting the demand for and production of the money-commodity. Nor, as *de facto* monopolists, do they confront the incentives that would induce them to respond appropriately to such knowledge even if they could somehow miraculously obtain it. The upshot is that market participants receive an inferior quality, and inexorably inflated, medium of exchange which tends to greatly impair the coordination, and hence achievement, of their individual purposes. This is the case even if, in contradiction of the lessons of theory and history, we assume that government money managers foreswear inflation and succeed in achieving their announced macro-statistical policy objectives, such as a stable price level, a comparatively high and steady growth rate of real output, etc. The reason is that money and monetary policy are not "neutral" to the constituent microeconomic processes and quantities of the overall economy. Manipulating the supply of money to insure a particular aggregate statistical outcome, therefore, inevitably has an impact on these processes and quantities, diverting them from those courses that are in accord with the preferences of consumer-savers on the market.

IS GOLD THE QUESTION?

David I. Meiselman

There is much appeal for any call to abolish a monopoly, including any alleged government monopoly on the creation or issue of money. Professor Salerno has previously stated in a Cato policy study that "The road to long-term monetary stability leads ultimately to the complete abolition of the government monopoly of issuing money."¹ The contention that there is a government monopoly of issuing money, however, is a misstatement of fact; it is simply wrong. We live in a fractional reserve banking world. Whatever disagreements or confusions there are regarding which set of assets to call money, or in setting the boundary line between money and nonmoney, it is a fact that most of the U.S. money stock is made up of claims on private banks and private financial institutions.

Only coin and currency are directly issued by the government. Jointly they represent only 27.4 percent or about \$133 billion of the narrow M1 measure of money, now \$485 billion. Currency is an even smaller fraction of broader measures of money. In short, *there is no government monopoly on issuing money*. Moreover, I know of no strong support for the elimination of fractional reserve banking, under which most of our money consists of bank deposits. A system of 100 percent reserves lives only in academic discussion, not in serious discussions or proposals for monetary reform and management.

What Professor Salerno and others may be confusing is government monopoly of and control over the monetary base—the sum of currency held by the public plus reserves held as deposits at the Fed. Control of the monetary base is central to control of the money stock,

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¹Joseph T. Salerno, "The Gold Standard: An Analysis of Some Recent Proposals," *Cato Institute Policy Analysis* (September 9, 1982), p. 23.

but unfortunately that is not the focus of Professor Salerno's critique; nor does it seem to be a central element in the analysis of many of those who emphasize the supposed, and nonexistent, government monopoly of money issue.

I agree with Professor Salerno that a 100 percent gold standard holds great appeal. Experience with government management of money has ranged from unsatisfactory to downright disastrous. This is especially true of the discretionary monetary policy under our current fiat, fractional reserve system.

The appeal of gold-linked money is based on several important factors. First, there is the possibility of a self-correcting adjustment mechanism and good stabilization properties under a 100 percent gold standard, or under some other gold standard arrangement. Other papers at this conference have discussed the stabilization properties of alternative monetary arrangements. I will not add further to that analysis except to note that the general conclusion seems to be that a gold-linked system, even a 100 percent gold standard, may be better than some alternative arrangements, but that gold does not, in principle, either create or lead to stable prices and a stable economy, nor have various gold arrangements in the past done so. Indeed, as the events of 1929 to 1933 in the United States and Great Britain clearly demonstrated, holding on to a fixed price of gold may lead to disaster.

Instability and banking collapse *outside* the United States, as well as deliberate undervaluing of the French franc in an attempt by France to attract gold from other countries, were major factors in the sharp decline in the U.S. gold stock in 1930 and 1931. Abiding by the gold standard rules, the Federal Reserve increased the discount rate and took other deflationary measures to protect the gold stock at a time when the U.S. economy was already experiencing deflation and severe economic contraction. To be sure, gold did stop leaving the country. Measured by that gold-standard criterion, Fed policies did work. However, the unfortunate side effect was the economic collapse that followed.

The experience of the 1930s illustrates that how a gold standard works in practice depends crucially on identifying and understanding the sources of a change in the demand for gold. It also raises serious questions about the stabilization properties of gold and illustrates the inability of any one country on the gold standard to protect or to insulate itself from severe foreign disturbances, especially under fixed exchange rates.

Most proponents of a gold-based or a gold-linked currency seem to assume that the United States government is the sole source of inflation and instability in an otherwise noninflationary and stable

world. Were this so, unilateral adoption of a gold standard might make sense. But the United States is not the only country guilty of monetary mischief. We have difficulties enough with our own government. If the United States were to adopt a gold standard, how could we then get the rest of the world to behave itself?

Another appeal of gold-linked money is that the arrangement would somehow make it easier to know what money is. I concede the point that the boundary line between money and nonmoney is sometimes inexact. The problem is not resolved, however, by stating that a unit of money is defined as some fixed weight of gold, as it was supposed to have been before 1933 when it was said to be about $\frac{1}{20}$ th of an ounce of gold. To be sure, before 1933 the price of gold was \$20.67 an ounce, so that one dollar was approximately $\frac{1}{20}$ th of an ounce of gold. However, a system in which the unit of account is $\frac{1}{20}$ th of an ounce of gold merely reflects the fact that the price of gold is pegged—by government price fixing and intervention—at \$20 an ounce. Thus, the dollar as unit of account is $\frac{1}{20}$ th of an ounce of gold merely because gold is \$20 an ounce! If wheat is pegged at \$5 a bushel, is money as the unit of account $\frac{1}{5}$ th of a bushel of wheat?

Government intervention and price fixing to peg the nominal value of a commodity does not make money or the unit of account “real,” nor does it assure that the real (as opposed to the nominal) value of the price-fixed commodity will persist. To peg the nominal price of a commodity such as gold typically requires that the price fixing scheme be financed by money issue when the pegged price is above the market price of the commodity. When the pegged price is below the market price, the commodity must be sold to the market and the money receipts from the sale are usually withdrawn from circulation, thereby decreasing the money stock. Moreover, when government purchases of gold or some other commodity cause an increase in the quantity of money, the resulting inflation increases the nominal prices of *other* goods, but not the nominal pegged price of gold. The converse is true when government sales of gold are required to keep the gold price from rising.

Price fixing only guarantees that the nominal price remains constant in terms of nominal dollars, at least until the government alters the pegged price. It does not follow that other prices (in terms of the fixed nominal priced commodity) will also remain stable or that some average of other nominal prices will remain stable. Perforce, there is no way that pegging the *nominal* price of one commodity can result in stable *real* values, including the real value of the price-fixed commodity.

We once (before 1933) maintained a fixed nominal price of gold.

However, accounts were still kept in dollars, not units of $\frac{1}{20}$ th of an ounce of gold, even though they were made equivalent by government intervention in the gold market. When the price of gold went to \$35 an ounce, did this mean that prices meaningfully increased 75 percent because the dollar was $\frac{1}{35}$ th of an ounce of gold? Or did this decline in the value of the dollar affect only foreigners able to buy gold from the U.S. Treasury and Americans able to sell gold to, but not buy gold from, the Treasury?

Professor Salerno wrestles with the interesting question of what the payments mechanism and the financial and banking system would be like under a 100 percent gold standard in which gold certificates had 100 percent gold reserves, and banks were required to hold 100 percent gold reserves behind notes and deposits. Banks would be, at least initially, warehouses for gold, and bank notes and deposits would be like warehouse receipts for the gold.

Given the economic incentives in these arrangements, it is likely that the system would evolve into a fractional reserve system with gold as the reserves. Such a system would then have all of the inherent problems of economic and price instability that a fractional reserve system entails. And this would be especially true in the context, not of the closed economy model that Professor Salerno seems to adopt, but in the realistic context of an open economy where other countries are not necessarily on the same 100 percent or fractional gold standard, and where there are constant economic, political, and military disturbances.²

In fact, I find the widespread implicit assumption of a closed economy among gold standard advocates one of the most serious flaws in their analyses. If an international gold standard is envisaged, we must face the problem of how to get the Russians, Italians, and Argentineans to join in making it a multilateral system. If the United States unilaterally adopts a fixed price of gold, I do not know of anything inherent in that act that would lead other countries to follow, especially countries not now linked to the dollar by fixed exchange rates.

Another flaw in the analysis is the implicit assumption that when the stock of gold, or money, changes, prices adjust quickly, costlessly, and uniformly, leaving both relative prices and real variables essentially unchanged *in the short run*. Price and wage rigidities are

²See Milton Friedman, "Real and Pseudo Gold Standards," *Journal of Law and Economics* 4 (October 1961): 66-79; reprinted in his *Dollars and Deficits* (Englewood Cliffs, N.J.: Prentice-Hall, 1968), pp. 247-265.

ignored as are uncertainty and the costs of adjustment. This hardly squares either with the evidence or with the analyses of the great Austrian economists whose authority Professor Salerno selectively invokes.

The 100 percent gold standard is appealing because it would substitute a rule for discretion; the same is true for fixing the price of gold. The proponents of a gold standard and of a fixed nominal price of gold have an excellent point in proposing an explicit rule. The main problem of fixing the gold price is that *it is the wrong rule*—we can do better.

Intervention to fix the price of gold would require Treasury purchases of gold whenever the free-market price of gold fell, and sales of gold whenever the free-market price of gold increased. Gold is now *convertible* into dollars, but not at a legally fixed price; there is a free market in gold. Convertibility is not the issue; price fixing is. I should add that in the past concern for maintaining the fixed gold price was a major source of, and rationalization for, a wide range of anti-competitive and costly interventions by the government.

Consider some of the types of intervention that would have been required had the United States been on a policy of price fixing in the gold market in recent years. While inflation has been subsiding, enormous government purchases of gold would have taken place had the gold price been fixed at the 1980 price of \$800 per ounce, the 1981 price of \$500 or so per ounce, or last spring's price of \$300 per ounce. Alternatively, since July 1982, there might have been large sales of gold as the gold price increased from \$300 per ounce to the present \$500 or so. Who is to know what next week's or next month's gold price will be.³

Government purchases to prop up the prices of gold would not be financed taxes or sales of U.S. government bonds, but by resorting directly to the printing press, that is, by new money creation. Inflation can be generated by gold certificates just as surely as it is generated by bank deposits and Federal Reserve notes. In other words, if Russia sells gold to buy grain, or if Iraq and Iran sell gold to finance their war or to adjust to a decline in petroleum prices and production, Treasury intervention to fix the gold price would increase the U.S. money stock, resulting in more inflation. This raises the question of whether we should have a monetary system under which poor Rus-

³In early February 1983, several weeks after Cato's monetary conference, the price of gold fell about \$100 an ounce on news of a decline in world oil prices. Should this good news about oil prices have required gold purchases by the U.S. Treasury, and increase in the U.S. money supply, and thereby inflation of other prices?

sian harvests or Persian Gulf wars not only cause distress in Russia, Iraq, and Iran, but also generate U.S. inflation.

These contemporary examples illustrate the principle that the gold standard rule of a fixed price of gold is incompatible with a rule or a policy of slow and stable money growth, which is essential for moderating inflation and for curbing the sharp swings of the business cycle and of interest rates. A fixed gold price inevitably means that U.S. monetary actions respond to all kinds of disturbances unrelated to achieving stable prices and stable money. These include both shifts in domestic "real" factors—such as new gold discoveries, changing technological conditions, and changes in the prices of gold substitutes—that would alter the free-market price of gold, as well as a wide range of disturbances from abroad. We make enough trouble for ourselves without importing still more.

Fixing the nominal price of gold may be better, or less bad, than unrestrained and chaotic use of the printing press, but these are not the only alternatives. There are *better* monetary rules, including the rule for zero money growth that I have proposed elsewhere.⁴

Fixing the nominal price of gold does not and cannot insure, and *never has insured*, stable prices. The gold standard proposal confuses real and nominal prices. It also confuses the legally fixed nominal price of gold and the purchasing power of money. You cannot target a stable price level and a fixed nominal price of gold at the same time. If stable real value or stable purchasing power of money is what is meant by the quality of money, then a monetary rule that results in stable prices, rather than government price fixing in the gold market, is the rule that also insures the quality of money.

Finally, I agree with Jim Buchanan, Karl Brunner, and others at this conference that we desperately need an end to discretionary monetary policy and discretionary fiscal policy. I also agree that this must be done by constitutional means, if possible, or by statute if necessary. Otherwise, the same institutions, the same people, the same incentives, and the same constraints will give us the same dreary results.

I am not optimistic that there is yet enough understanding or a strong enough coalition of interests to enact the constitutional or statutory constraints that are necessary to curb or to smash the printing press. But the time may come when the costs of inflation and

⁴See David Meiselman, "Is There a Conflict Between Monetarism and Supply-Side Economics?," in *Supply-Side Economics in the 1980s* (Westport, Conn.: Quorum Books, 1982), pp. 41–48; and "Fiscal Policy and Interest Rates: The Great Deficit Swindle of 1982," *Tax Review* 43 (May 1982): 21–28.

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instability are so high or the returns from the inflationary and stop-go policies are so low that it may be politically feasible to enact the necessary constitutional changes. I profoundly hope that we are ready with workable ideas if and when the time comes.