

ESSAYS IN INTERNATIONAL FINANCE

No. 101, November 1973

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NATIONAL PREFERENCES  
AND THE SCOPE FOR  
INTERNATIONAL MONETARY REFORM

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ROBERT Z. ALIBER



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DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

*This is the one hundred and first number in the series* ESSAYS IN INTERNATIONAL FINANCE, *published from time to time by the International Finance Section of the Department of Economics of Princeton University.*

*The author, Robert Z. Aliber, is Associate Professor of International Trade and Finance at the Graduate School of Business of the University of Chicago, and Director of the School's Program of International Studies in Business. He is the author of The International Money Game (1973) and of The Management of the Dollar in International Finance (No. 13 in Princeton Studies in International Finance), and editor of National Monetary Policies and the International Financial System (forthcoming).*

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*International Finance Section*

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Department of Economics  
Princeton University  
L.C. Card No. 73-16883  
ISSN 0071-142X

Printed in the United States of America by Princeton University Press  
at Princeton, New Jersey

# National Preferences and the Scope for International Monetary Reform

The international financial policy of the United States is at a critical juncture. The \$35 parity, which became inappropriate in 1960 or 1961, became obsolete on August 15, 1971. The \$42 parity is not operational without a substantial change in the basic features of the current payments arrangements. The communiqué to announce the Smithsonian Agreement noted that the participants would negotiate on a new international monetary system, and after the 1972 meeting of the International Monetary Fund, the Committee of Twenty was organized to provide a forum for the negotiations. One major issue in the negotiations is the future of the \$50 billion of gold as international money; another is the future of the \$60 billion of U.S. dollar-denominated assets in international reserves. Pending the outcome of these negotiations, the major countries may continue to permit their currencies to float.

The concern with reserve-asset arrangements is sometimes seen as secondary to developing more effective ways to reduce payments imbalances—to improving the adjustment mechanisms. A more systematic approach to changes in exchange rates will reduce delays in correcting fundamental disequilibria, and the optimal rate of growth in reserves will therefore be lower. But increased flexibility in the adjustment process will not eliminate the need for growth in reserves if exchange rates are pegged, nor will it resolve the future international roles of gold and the dollar.

While discussion of international monetary reform has been extensive for a decade, no consensus has been reached on the roles of gold and the dollar in the system. One reason is that analysts have differing views about the constraints upon the reform process. Many analysts implicitly ignore such constraints; they assert that, if all countries cooperate, the implementation of their proposals will resolve the problems of reserve adequacy and adjustment. Yet there are constraints, and they differ among countries. Countries are not indifferent to the size or rate of change of their payments imbalances, the measures used to adjust to imbalances, or the mix of reserve assets. If these national preferences could be altered without cost or limit, monetary reform would be a cinch;

any of the plans for reform current in the mid-1960's would be acceptable and workable. In the absence of constraints, reforming the system would be an exercise in aesthetics rather than in economics or politics.

Evidence from the negotiations of the 1960's—on the General Arrangements to Borrow, Special Drawing Rights, the exchange-rate system—suggests that most countries view reform of the system as an optimizing activity. In the SDR negotiations, for example, countries sought to maximize their benefits from the use of SDRs while minimizing their contractual obligation to accept SDRs in exchange for their own currencies. The positions are inconsistent for all countries as a group, for the workability of the SDR arrangement requires that the rights of countries to sell SDRs to others match the commitments of others to buy SDRs. Monetary reform is not a costless activity; countries are concerned with the distribution of economic welfare and the burden of initiative in making decisions. Inevitably, countries seek to advance their own interests in monetary negotiations, for this is what international politics is all about.

A second reason for the absence of agreement on the future roles of gold and the dollar, even when the conflicting interests of various countries are recognized, is that the objective function—the welfare function to be maximized—is ambiguous. Even if world welfare were the concern, the interests of individual countries would have to be weighed. Each country might have a weight of one, or a weight based on population, GNP, per capita GNP, or some other variable. As the weights change, so does the world-welfare function. Most analysts have an implicit world-welfare function in mind when discussing reform proposals, although they never discuss the weights. The negotiators for individual countries necessarily have a different set of weights from those of the analysts—or of the negotiators from other countries.

A necessary step in optimizing the system involves elaboration of the welfare function of individual countries. This essay is less ambitious, however, and discusses only the U.S. interest in international monetary reform. A floating exchange-rate system has been operative since February 1973, and the question is whether the United States has anything to gain under three alternative systems that involve pegged rates. These systems are defined by the number of international monies: The one-asset system includes only SDRs (used here as a generic term for any fiat international monies produced by an international institution); the two-asset system includes gold and SDRs; and the three-asset system includes dollars, gold, and SDRs. The assumption common to all three systems is that exchange rates are pegged, with somewhat wider support

limits and greater flexibility for changes in parities than in the pre-1971 arrangements.

Section 1 reviews the monetary history of the 1960's. Section 2 examines the U.S. national interest in the process of monetary reform. The costs and benefits to the United States of the three competing international systems are discussed in section 3.

### **I. The U.S. Role in the Operation of the Gold-Exchange Standard**

The problem for the United States in managing the gold-exchange standard was to maintain a relationship between the monetary price of gold and the commodity price level so that a change in the dollar price of gold—the price connecting the two reserve assets—would not be necessary. The stability of this relationship was threatened by changes in the demand for one of these assets relative to the supply. For many countries, the two reserve assets were not good substitutes; these countries were not confident that the monetary price of gold and the exchange-rate structure were fixed forever. The traditional explanation for the growth of the gold-exchange standard was the desire to economize on the use of gold in reserves; on this view the countries that chose to hold currencies as reserves rather than gold were acting in the interests of the system, and not necessarily in their own interests. But the development of the system can also be explained in terms of governments' self-interested responses to the question: Given the source of our imports, which asset best serves our needs for an international store of value?

Countries acquire reserves so as to be able to finance imports during periods when their export earnings fall short of the payments required to finance imports. Their choice of reserve assets reflects their desire to minimize the risks resulting from a decline in the purchasing power of their reserves in terms of their future imports. Thus a country would minimize its risks by holding reserves denominated in the currencies whose prices would vary least in relation to the prices of their imports.

A country whose imports came largely from the United States could minimize its exchange risks by holding dollar-denominated reserve assets. If the dollar were devalued in terms of the country's own currency or in terms of gold, its wealth would not be adversely affected: the value of its reserves in terms of future imports would be unchanged, and it would have the benefit of the interest income on dollar assets. A country whose imports were more diversified would be reluctant to hold all its reserves in dollar assets, since the value of its reserves in terms of its future imports might decline if the dollar were devalued relative to the currencies of the countries from which it obtained its imports. Since it would

be cumbersome to match reserves with the mix of countries supplying imports, a country with diversified imports might instead hold its reserves in the asset least likely to decline in value in terms of currencies in general. Gold was one such asset, for the value of gold in terms of currencies could decline only if a foreign country revalued its currency relative to gold, and, prior to the 1960's, such revaluations did not occur. Any country holding gold as a reserve asset could insulate the purchasing power of its reserves from losses due to an increase in the dollar price of gold, in effect a devaluation of the dollar in terms of the currencies of the countries supplying their imports. For these countries, the desire to minimize the risk of loss would tend to be more important than the interest income on dollar assets.

Thus the growth of the multiple-asset reserve system was a consequence of the fact that countries had different sources of imports. The countries in the dollar bloc were those for which the United States was a principal source of imports, while the countries in the gold bloc obtained imports from a wider range of countries. Some countries diversified their reserves, holding gold and dollars because their imports were diversified, coming partly from the dollar bloc and partly from outside the bloc. Diversification of reserve assets is a form of risk avoidance for countries whose imports come from varied sources. The shares of gold and dollars in their portfolios could be viewed as varying with the interest rate on dollars assets, the estimate of the probability that the dollar price of gold might change, and the sources of their imports.

The United States had a unique role in the management of the post-World War II gold-exchange standard, for it had control over both the monetary price of gold and the world commodity price level.

Control over the monetary price of gold stemmed from the fact that any change in the dollar price of gold would induce other countries to change by the same percentage the price of gold in terms of their currencies. No other country could effect a worldwide change in the price of gold by raising the price of gold in terms of its currency, as General de Gaulle realized to his chagrin. Instead, if France had doubled the franc price of gold, the resulting payments surplus would eventually have led to price inflation in France, which would have continued until the new exchange rate became an equilibrium rate. The response of countries to a U.S. initiative would differ from the response to an initiative by others because the payments imbalances resulting from unilateral changes in the price of gold would have been small in terms of the U.S. economy but much larger in terms of other economies.



Control by the United States over the world commodity price level resulted from two factors. First, the U.S. economy was a very large part of the world economy; changes in the U.S. price level had a significant impact on the world price level because of the weight of the former in any world price-level index. If other countries followed more expansive monetary policies than the United States, increasing their price levels more rapidly than did the United States, they would eventually have had to devalue their currencies. Second, other countries were reluctant to revalue their currencies, and they tended therefore to import the U.S. inflation. If they wanted to inflate less rapidly than the United States, they were obliged to revalue their currencies.

United States control over the monetary price of gold and over the commodity price level meant that the U.S. authorities indirectly controlled the major economic variables affecting the supply and demand for gold, and hence changes in U.S. gold holdings. Whether the United States bought or sold gold depended on the relationship between its monetary price and the commodity price level, and the impact of this relationship on gold production, the private demand for gold, and the foreign official demand. The excess of private and foreign official demand over new production led to a more or less continuous decline in the U.S. gold stocks in the 1950-70 period. The higher the commodity price level relative to the monetary gold price, the smaller the volume of gold production, and the larger the private demand for gold, because gold then became less expensive relative to other commodities. Moreover, the higher the commodity price level relative to the monetary gold price, the larger the demand for reserves, and the larger then the foreign official demand for gold.

The official demand for gold in various foreign countries depends on the level of their reserves, the interest rates on dollar assets, the authorities' expectations about the future dollar price of gold, and whether they would peg their currencies to gold or to the dollar if the dollar price of gold were changed. The higher the interest rates on dollar assets or the greater the confidence in the stability of the dollar price of gold, the larger the foreign official demand for dollar assets. Higher interest rates on dollar assets might thus offset decreased confidence in the stability of the dollar price of gold.

Throughout the 1960's, foreign-owned reserves increased. Had this been solely a demand for dollar assets, the United States could have satisfied it without limit. But the United States, which was the major source of the growth in foreign gold holdings, could not continually satisfy the foreign demand for gold. In the short term, increases in U.S.

interest rates might offset the increased vulnerability of the U.S. reserve position, so that the pace of U.S. gold sales would decline. But interest-rate policy was not a viable long-term approach to reducing U.S. gold sales.

In retrospect, analysis of the U.S. international financial problem was subject to several sources of confusion about management of a multiple-asset system. One was a delayed recognition that, until 1967 or 1968, U.S. payments deficits and gold sales reflected a shortage of alternative sources of reserves, and not the overvaluation of the dollar relative to other currencies, U.S. inflation, or the shortcomings of U.S. domestic policy. The large U.S. payments deficits of 1970 and 1971 merely advanced the date of an inevitable change in the dollar price of gold.

The second source of confusion centered on a failure to understand the economic rationale for the foreign official demand for gold. Preferences for gold were viewed as traditional or even irrational; it seemed inane to choose a "barbarous relic" instead of income-earning dollar assets that paid 4, 5, or 6 per cent. And even when the demand for gold was accepted as rational, it was interpreted either as an economic club to force the United States to curb its payments deficit, so that the surplus countries would be spared the need to take the initiative in reducing their surpluses, or as a political club to reduce U.S. prestige by forcing suspension of gold convertibility.

The preference for gold, despite the high opportunity cost of holding it, really meant that there was a substantial implicit yield attached to it, or that an international reserve portfolio containing gold was deemed less risky than a portfolio consisting solely of dollar-denominated reserves. We have seen that, for some countries, holding gold as a reserve asset serves to minimize the risk of loss in terms of future consumption bundles. Another long-run advantage is that gold retains value as a commodity even if demonetized, for it can be sold in commodity markets. Finally, some foreign central banks are concerned that, sooner or later, the U.S. authorities might subject foreign-owned dollars to exchange controls. In effect, foreign official preferences for gold imply less than complete confidence in the credibility of U.S. commitments to maintain the future value of their dollar assets—skepticism that received support when the United States suspended gold sales in August 1971.

A third source of confusion concerned the mechanisms available for keeping two types of reserves—gold and dollars—in circulation simultaneously. One approach involves periodic variations in the dollar price of gold, as happened with gold and silver during bimetallic periods. A second approach involves variations in the commodity price level, per-

haps as a response to a change in the demand for one of the reserve assets. For example, if the increase in the demand for gold leads to a shortage of international money, the shortage will induce a decline in the commodity price level, stimulating gold production and reducing the private demand for gold. The foreign official demand for gold will also decline. The homeostatic mechanism underlying the automatic stabilizers will ensure that the supply of gold changes in response to the demand, provided the commodity price level is flexible.

If the commodity price level is fixed, increases in the demand for gold may cause its implicit price to rise above its monetary price. Gold will then be hoarded. Consequently, the monetary price must be adjusted periodically to ensure that neither asset is hoarded. In the short run, an increase in interest rates on dollar assets might increase the demand for dollars relative to gold. But if foreign reserves are increasing secularly, continued increases in interest rates on dollar assets will be necessary to neutralize the increase in the foreign demand for gold and forestall the need for an increase in the monetary price of gold.

If the monetary price of gold is to remain stable in the long run, changes in the commodity price level are necessary to ensure that the supply of gold changes in proportion to the demand. If the commodity price level is fixed or rising, increases in the monetary price of gold will be necessary to ensure that gold and dollars remain in circulation simultaneously, in the absence of new gold discoveries or a reduction in the gold preferences of other countries.

The fact that a change in the dollar price of gold was necessary has been attributed incorrectly to the role of the dollar as a reserve asset, or to its derivative role as numeraire or intervention currency. A change in the dollar price of gold might have been necessary even if the dollar had not been a reserve currency, unless the United States had permitted the demand for gold by other countries to determine the world price level. If other countries achieve payments surpluses to satisfy their demand for international reserves, the United States incurs mirror-image deficits, and if gold is the only international money, the surplus countries will buy gold from the U.S. Treasury. To prevent eventual exhaustion of U.S. gold holdings and move the system back to equilibrium, the United States either had to deflate until the decline in world commodity prices meant that existing gold stocks were adequate or increase the dollar price of gold, triggering an increase in terms of other currencies, which would lead to a reduction in the demand for gold and an increase in the supply.

It is sometimes argued that if the dollar were not an international unit

of account or numeraire, the U.S. authorities might have been free to devalue the dollar successfully. Two reasons are offered. The U.S. authorities would have been less reluctant to change the foreign-exchange value of the dollar, and there would have been less likelihood of other countries countering an increase in the dollar price of gold with equivalent increases in terms of their currencies. The United States does not have the same freedom as others to change the foreign-exchange value of its currency, in part because many other countries prefer to peg their currencies to the dollar, in effect permitting the United States to determine their price levels. The United States cannot devalue the dollar successfully relative to currencies pegged to the dollar. This is true whether or not the dollar is a numeraire.

Less frequently, it is argued that the dollar's role as an intervention currency forced the change in the dollar price of gold. Assume, however, that the intervention currency were the Mexican peso rather than the U.S. dollar. The U.S. authorities would then support the dollar in the exchange market by selling pesos and would sell gold to the Bank of Mexico to obtain pesos for intervention in the exchange market. If, at the same time, countries in payments surplus were acquiring more pesos from their interventions than they wished to hold, they would sell some of their excess pesos to the Bank of Mexico in exchange for gold. The Bank of Mexico would in turn sell to them the gold obtained from the U.S. Treasury. The United States would sell gold because the United States had a payments deficit, not because the dollar is an intervention currency.

The gold-exchange standard of the 1960's did not break down by itself. The U.S. authorities failed to make it work. Around 1960, the symptoms of a worldwide gold shortage appeared; the monetary price of gold was too low relative to the commodity price level. The problem was inherent in the system, which lacked a mechanism for adjusting the supply of gold to changes in demand. The dollar was not then overvalued in relation to other national currencies; instead, given world reserves and the preferences of other countries, all currencies were overvalued relative to gold. The U.S. authorities were unable to alter the gold preferences of foreign central banks, unwilling to deflate the U.S. and world commodity price levels, and unwilling to accept an increase in the monetary price of gold. So the U.S. gold parity became unrealistic. Consistency among the gold preferences of foreign central banks, the niggardliness of nature, and the world commodity price level—hence national monetary policies—required either a higher price of gold in terms of all currencies or a change in the system itself.

## 2. Monetary Reform and the U.S. National Interest

The process of monetary reform involves changing the "rules of the game" for financing and adjusting to payments imbalances. The purpose of monetary reform—of adopting one set of rules and discarding another—is to reduce uncertainty about the future values of economic variables such as the exchange rate, the size of payments imbalances, exchange controls, the composition of reserves, and the rate of reserve accumulation. Rules narrow the scope for national discretion. Without rules, each country could alter without formal constraint the values of variables under its control—although it might be informed by its trading partners that they resented the external impact of its policies. Rules prevent countries from taking actions they might otherwise adopt, and they compel countries to take certain actions that they might otherwise avoid. Rules reduce the options and hence the amount of uncertainty about the size of financing for imbalances and about the means used to adjust them.

The constraints that a country accepts in agreeing to the rules are advantageous to its trading partners. Each country accepts rules that constrain its future actions in the belief that it will gain from similar constraints on other countries. By reducing uncertainty, the rules increase the confidence with which private investors and government officials can plan for the future.

The U.S. authorities must decide whether monetary reform will encourage the achievement of U.S. national objectives, both economic and political. Since February 1973, the international monetary system might be called the limping dollar standard. The United States follows a policy of "benign neglect"; its monetary and fiscal policies are directed to domestic objectives without concern for the external balance. The United States is not obliged by formal or informal commitments to initiate a change in the foreign-exchange value of the dollar. Other countries peg their currencies to the dollar or allow them to float; some also use direct controls to regulate international payments. The U.S. payments balance mirrors the sum of the payments balances of other countries; the United States has a payments deficit because other countries have a surplus.

The advantage of the limping dollar standard to the U.S. authorities is that they are no longer under pressure to limit dollar outflows, because there is no longer a commitment to peg the price of the dollar to gold. But there are costs to the United States, for the suspension of gold sales by the U.S. Treasury has made it easier for other countries to ignore the