Volume Title: A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform

Volume Author/Editor: Michael D. Bordo and Barry Eichengreen, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-06587-1

Volume URL: http://www.nber.org/books/bord93-1

Conference Date: October 3-6, 1991

Publication Date: January 1993

Chapter Title: Panel Session I: Retrospectives

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Chapter URL: http://www.nber.org/chapters/c6877

Chapter pages in book: (p. 495 - 512)

10 Panel Session I: Retrospectives

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How the International Monetary Fund Saw Postwar Payments Problems

Edward M. Bernstein

After prolonged discussions in 1943–44, the United States and the United Kingdom, and the countries with which they consulted, were agreed that it was necessary to establish a permanent institution for cooperation on international monetary problems. In particular, they agreed on the need "to promote exchange stability, to maintain orderly exchange arrangements . . . and to avoid competitive exchange depreciation" (Articles of Agreement, Article 1 [iii]). They were not agreed, however, on what the postwar problems would be, what would cause them, or how to deal with them.

Depression or Inflation

Some countries, including the United Kingdom, believed that the main cause of postwar payments problems would be the recurrence of the Great Depression of the 1930s. As a consequence, there would be widespread difficulty in financing balance of payments deficits with the United States. In the introduction to his proposal for an International Clearing Union, Keynes said, "[We] need a means of reassurance to a troubled world, by which any country whose own affairs are conducted with due prudence is relieved of anxiety, for causes which are not of its making, concerning its ability to meet its international liabilities; and which will, therefore, make unnecessary those methods of restriction and discrimination which countries had adopted hitherto, not on

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their merits, but as measures of self-protection from disruptive outside forces."[1]

The outside forces that Keynes had in mind were the Great Depression and the large payments surplus of the United States, on an official reserve basis, from 1934 to 1939. In a letter explaining the need for an International Clearing Union, Keynes wrote that "the necessity of some such plan as the above arises essentially from the unbalanced creditor position of the United States."[2] The concern about the disruptive effects of another great depression was met by the scarce currency provision of the Articles of Agreement of the International Monetary Fund. This allowed countries to discriminate against a super-surplus country whose currency had become scarce in the Fund—that is, a country whose surplus could not be financed by drawing its currency from the Fund.

When I joined the staff of the International Monetary Fund in June 1946, the managing director asked me to discuss this and other problems with the executive directors. I told them that there would be a need for large resources for reconstruction and consequently pressure on the balance of payments of Europe for several years but that there would not be a great depression. The Great Depression after World War I was caused by the interaction of wartime inflation and the gold standard. The inflation exhausted the money-creating power of a gold standard world, and, because of the uneven inflation, the historical gold parities could no longer maintain balance in international payments without persistent deflation in some countries to bring down costs. The Bretton Woods system differed from the gold standard in an important respect. Although the Fund was designed to maintain stable exchange rates, the par value of a currency could be changed if that was necessary to correct a maladjustment in a member's balance of payments without resorting to deflation or exchange restrictions.

I told the executive directors that, instead of depression, the economic environment of the next decade would be marked by inflation. In all countries, there had been a deficiency of investment during the war, and in Europe, in addition, there had been enormous destruction of productive facilities. It would be difficult to undertake the increased investment necessary for reconstruction without generating inflationary pressures. Moreover, because of wartime rationing and price control, personal wealth had become excessive relative to prospective income, and this would result in a large increase of consumer spending in the immediate postwar years. And, as too much of the personal savings was held in bank deposits and war savings bonds, there would be a shift in holdings from monetary assets to real assets. This would

1. U.S. Department of State, *Proceedings and Documents of the United Nations Monetary and Financial Conference, Bretton Woods, New Hampshire, July 1–22, 1944* (Washington, D.C.: U.S. Government Printing Office, 1948), 2:1551.

2. J. M. Keynes to F. T. Ashton-Gwatkin, 25 April 1941, in *The Collected Writings of John Maynard Keynes* (New York: Macmillan/St. Martin's, 1971), 25:19.

result in a boom in housing and higher prices for stocks, which represented real assets, and a fall in the prices of bonds, which were monetary assets. These views were presented in a research report of the staff and later published in the first issue of the *Staff Papers*.[3]

As the International Monetary Fund gave no credence to the danger of the recurrence of a great depression, some countries wanted a study of the question by another agency. The United Nations appointed a committee of economists from the United States and other countries under the chairmanship of Professor James W. Angell to study the international effects of recessions. The Fund presented its view that cyclical fluctuations in the United States would be mild and would have a limited effect on the U.S. trade balance. This became the tenor of the Angell Committee's report. Nevertheless, the fear of a great depression persisted, and, in every recession until that of 1957–58, the Fund had to reassure its members that it was not the beginning of a great depression and that the U.S. economy would soon resume its growth.

Exchange Rates and Balance of Payments Adjustment

Of more immediate importance, the International Monetary Fund had to prepare for its work on exchange rates and balance of payments problems. In October 1946, the Fund asked its members to communicate initial par values for their currencies based on the rates of exchange that prevailed sixty days before the Fund Agreement came into force. This presented complex theoretical problems for the staff. How was the Fund to determine whether the initial par values were appropriate? In spite of rationing and controls, prices and wages had risen considerably during the war and, because of the latent inflation, were expected to rise further in the next few years. All the European members had exchange restrictions and, under the Fund Agreement, were entitled to retain them and modify them if necessary in the transition period. Under these conditions, it was not possible to apply a purchasing power parity test to determine whether the initial par values communicated to the Fund were appropriate.

Instead, the International Monetary Fund decided that the basis for determining whether an initial par value was acceptable should be how it would perform the primary function of an exchange rate—that is, to encourage exports and to restrain imports. Because of the acute postwar shortages and the need for large resources for reconstruction, it was not possible for the European members of the Fund to depend solely on the exchange rate to restrain imports in the immediate postwar period. As the chairman of the Fund said in a talk at Harvard University in February 1948,[4] in order to restrain their de-

3. Edward M. Bernstein, "Latent Inflation: Problems and Policies," *International Monetary Fund Staff Papers* 1, no. 1 (February 1950): 1–16.

4. Camille Gutt's talk was published as "Exchange Rates and the International Monetary Fund," *Review of Economics and Statistics* 30, no. 2 (May 1948): 81–90.

mand for imports through the exchange rate, these countries would have to depreciate their currencies so sharply that it would reduce their foreign exchange earnings because their capacity to produce and to export was still limited.

The Fund decided, therefore, that the best test of the initial par value was its effect on exports. Some members whose currencies were grossly overvalued did not communicate par values in 1946. The par values of the currencies of a few countries that the Fund approved were expected to last only a year or so, as the staff noted. Actually, the initial par values that the Fund approved did enable its members to export as much of their output as they could divert from domestic consumption and investment at that time. The Fund knew, however, that the initial par values of the European members would have to be changed after a few years—that is, when their production had recovered and they were able to increase their exports.

By 1949, it had become evident that the European currencies would have to be devalued. Although Europe's production had recovered considerably, exports to the United States had fallen by 14 percent. In September 1949, the United Kingdom proposed to the Fund that the pound be devalued by 30.5 percent. That was followed immediately by proposals for devaluation to the same extent by the other European members except Belgium, which proposed a much smaller devaluation, and France, which simply realigned its cross-rates with other European currencies after an earlier unauthorized devaluation of the franc exclusively against the dollar.

The 1949 devaluation of sterling was not excessive. Billions of pounds had been accumulated as the counterpart of the military expenditures of the United Kingdom in the Middle East and the Far East. Sterling balances were being sold for dollars in free markets at a discount from the official rate, thus diverting sterling area imports from Britain to the United States. The devaluation was designed to eliminate the discount on sterling, and in this it was successful. The devaluation of most continental European currencies, however, was excessive. The exports of these countries to the United States had fallen much less than Britain's, and they did not have the problem of large foreign-held balances of their currencies. They decided to devalue their currencies precisely as much as sterling mainly because they regarded the United Kingdom as their principal competitor in world trade. This was much the same policy as they had followed after World War I, when the dollar rates for the Netherlands guilder, the Swiss franc, and the Swedish krona were allowed to depreciate about as much as sterling and then to rise to parity along with sterling in 1925, just before the United Kingdom returned to the gold standard.

There was another reason why the continental European countries proposed such a large devaluation of their currencies. Although fear of a recurrence of a great depression had subsided somewhat, a new rationalization of a permanent dollar shortage had emerged—that, since World War I, productivity had increased more in the United States than in other industrial countries and that

this caused the United States to generate a large and persistent surplus in its balance of payments on current account. The Fund rejected this view. The dollar shortage, it said, was actually a shortage of real resources for reconstruction that would end when Europe's capacity to produce was restored. The Fund approved all the proposed devaluations. It would not have been practical to insist on smaller devaluations of the continental European currencies. The exchange market would have said that the European currencies were still overvalued as these countries themselves recognized by proposing larger devaluations.

A related question was how the International Monetary Fund expected the devaluations to adjust the balance of payments. Under the classical gold standard, adjustment took place more or less automatically as central banks in the surplus countries responded to an inflow of gold by expanding the money supply and central banks in the deficit countries responded to an outflow of gold by contracting the money supply. In this way, surplus and deficit countries shared adjustment of the balance of payments under the classical gold standard in inverse proportion to the size of their monetary economies. As a practical matter, there was no other method of adjustment under the classical gold standard. The budget was expected always to be in balance, except in time of war, and debt incurred during the war was expected to be reduced gradually after the war. As the gold value of the currency was regarded as immutable, no responsible country would change the gold parity of its currency in order to deal with a deficit or surplus in its balance of payments. The situation changed after central banks became more active in their management of the monetary system. As Keynes emphasized, a deficit country still had to follow a restrictive monetary policy in order to avoid further depletion of its gold reserves. A surplus country, on the other hand, could neutralize the expansionary effect of a gold inflow through open market operations.

What was the obligation of a surplus country under the Bretton Woods system? In a document prepared for the Bretton Woods conference, *Questions and Answers on the International Monetary Fund,* the U.S. Treasury gave its view of what the Fund would recommend to a country whose currency had become scarce. The large and persistent surplus, it said, could be due to inadequate domestic demand. In that case, the Fund's recommendations should include changes in credit and investment policy and other measures that would help expand economic activity. It was also possible that the increase in productivity had been greater than the rise in wage rates, so that unit labor costs have fallen, and an upward adjustment in wages should be encouraged. "In extreme cases," it added, "it may also be desirable to recommend a change in exchange rates for the country whose currency is scarce."[5]

5. *Questions and Answers on the International Monetary Fund,* in *The International Monetary Fund, 1945–65,* ed. J. T. Horsefield (Washington, D.C.: International Monetary Fund, 1969), 3:173–74.

Regarding deficit countries, the Articles of Agreement said only that the Fund's resources were available to members under adequate safeguards to enable them to correct maladjustments in the balance of payments without resorting to deflation, which would be destructive of national prosperity, or resorting to restrictions of trade and payments, which would be destructive of international prosperity. In the *Questions and Answers on the International Monetary Fund,* the U.S. Treasury said, "It would be a complete inversion of objectives if a high level of business activity were to be sacrificed in order to maintain any given structure of exchange rates."[6] That is why the Fund Agreement provided that a member could propose a change in the par value of its currency if that was necessary to correct a fundamental disequilibrium in its balance of payments.

The discussions before the Bretton Woods conference did not consider how the devaluation of a currency could be expected to eliminate a deficit in the balance of payments. After the International Monetary Fund began operations, the staff developed its views on balance of payments adjustment. A temporary deficit in the expansion phase of a business cycle is not a payments problem. It should be financed out of a member's own reserves or by drawings on the Fund. A large and persistent deficit accompanied by full employment is an indication of excessive domestic demand, and the proper remedy is to use monetary and fiscal policies to restrain demand. If the excessive demand has been built into the price and cost structure, devaluation of the currency may be necessary. The devaluation by itself, however, will not eliminate the deficit if the excessive demand is allowed to persist. To be effective, the devaluation must be accompanied by measures to reduce domestic consumption and investment relative to production. These views were later published in the *Staff Papers.*

Quotas, Drawings, and Reserves

There were some interesting problems with quotas, drawings, and reserves. The International Monetary Fund had resources of currencies and gold to which it referred as a common reserve of its members. Did this common reserve add to the members' own reserves? As part of a member's quota subscription had to be paid in gold, the first effect was a reduction of its own gold holdings. In 1947, a member inquired of the Fund whether it could count the gold subscription as part of its gold reserves. The reply of the Fund was that this would not be proper, as the gold subscribed by the member belonged to the Fund. This meant that a member's own reserves were reduced by the amount of its quota subscription paid in gold.

A related problem arose from the Fund's transactions with its members. The U.S. balance of payments, as published by the Commerce Department,

6. Ibid., 138.

classified drawings of dollars from the Fund as an outflow of U.S. capital. I discussed this with the economists of the Commerce Department, emphasizing that drawings from the Fund and repurchases of previous drawings from the Fund were transactions in monetary reserves. While drawings of dollars resulted in an increase of U.S. liabilities to foreigners or, if converted, in a decrease of U.S. gold reserves, the offsetting entry should be not a capital outflow—that is, foreign investment—but an increase of other U.S. reserve assets in the form of its net position in the Fund. Later, the International Monetary Fund did treat a member's net position in the Fund as a reserve asset.

Even after this change in the classification of the net position in the Fund as a reserve asset, drawings of dollars could impair the reserve liquidity of the United States. In principle, surplus countries were expected to finance the deficit countries through drawings of their currencies from the Fund. In practice, this did not happen. In 1947–60, virtually all the drawings from the Fund were in dollars and sterling, although U.S. and U.K. reserves had not increased over this period. On the other hand, except for deutsche marks, only 1.4 percent of the total drawings from the Fund were in continental European currencies, although these countries had increased their reserves considerably. As these currencies were selling at a premium above par, deficit countries could have minimized their service charges (three-fourths of 1 percent) or offset them entirely if they had drawn the currencies of the surplus countries and sold them for dollars in the exchange market.

When dollars were drawn from the Fund and used to make payments to Europe, the surplus countries could either add the dollars to their foreign exchange reserves or convert the dollars into gold. If they chose to convert the dollars, the gold reserves of the United States would be reduced, although its total reserves would be unchanged because of the increase in its net position in the Fund. The conversion of dollars into gold, however, caused difficulties for the United States. Under U.S. legislation, the Federal Reserve Banks had to hold gold reserves against their currency and deposit liabilities. In addition, in a communication to the Fund, the United States had undertaken to buy and sell gold freely in settlement of international transactions, a commitment that became more onerous as the gold reserves fell.

The reserve problem, as it manifested itself at the end of the 1950s, was much less a shortage of aggregate reserves for the world than a shortage of gold reserves for the United States. This did not arise from an adverse balance of payments on current account, although net foreign investment began to exceed the current account surplus by 1958. U.S. gold reserves were actually slightly larger at the end of 1957 than they had been ten years earlier. In spite of that, the gold reserves were very close to the minimum required by U.S. legislation. That was because the money supply—currency plus demand and time deposits—had grown at an average annual rate of just under 3 percent. The Treasury met this problem, as it had met the same problem in 1945, by having Congress reduce the gold reserve requirements.

The problem was intensified by a shift in Europe's preference for gold over dollars. Between 1950 and 1957, Western Europe added $8.0 billion to its reserves, about equally divided between gold and dollars. All the increase in Europe's gold reserves came from newly mined gold and gold sales of the Soviet Union, as U.S. gold reserves were not reduced in this period. From 1957 to 1965, by contrast, Europe's gold reserves increased by $12.7 billion, and its official holdings of dollars increased by $4.5 billion. Nearly all the increase in Europe's gold reserves came from the conversion of dollars as U.S. gold reserves fell by $9.0 billion in this period. The Treasury had no legal obligation to convert dollars into gold. It had informed the Fund, however, that it would do so under Article IV-4-a as an alternative to the responsibility of preventing exchange transactions outside the range prescribed by the Fund.

The Gold Reserve Problem of the United States

The drain on U.S. gold reserves was attributed to a variety of causes. One view was that it indicated a shortage of aggregate reserves. Other countries, seeking a growth of reserves to keep pace with the growth of their international transactions and unable to secure the reserves from newly mined gold and gold sales of the Soviet Union, were impelled to meet their reserve needs by drawing down U.S. gold reserves. This did not explain the growing preference for gold over dollars. Another view was that, at the prewar price of $35.00 an ounce, gold was too cheap, and for this reason the equal attractiveness of gold and dollars could not be maintained by raising interest rates, even if the United States were willing to follow such a policy.

The solution advocated by Roy Harrod, Milton Gilbert, and others was to raise the price of gold. Article IV-7 of the Fund Agreement provided for uniform changes in par values—that is, an increase in the price of gold in all currencies without changing exchange rates. The Bretton Woods Agreements Act, the enabling legislation for membership in the Fund, provided that the U.S. executive director could not vote for a change in the par value of the dollar or a uniform change in par values without the prior approval of Congress. In practice, that need not have prevented a change in the price of gold as the market would assume that, if other countries agreed to raise the price, the United States would have to approve it after a brief delay.

In 1958, the International Monetary Fund issued the report *International Reserves and Liquidity.*[7] In cautious terms, the Fund staff concluded that there was no evidence that reserves were inadequate at that time or would become inadequate in the next decade. Any country willing to devote real resources to acquiring reserves, the report said, would have no difficulty in acquiring all the gold and foreign exchange it needed. This is the logical fallacy of compo-

7. *International Reserves and Liquidity* (Washington, D.C.: International Monetary Fund, 1958).

sition—that what is true of any country taken alone is true of all countries taken together. The fact, of course, was that, while any country could get all the gold it was able to pay for, all other countries could not get more than the amount of newly mined gold and gold sales of the Soviet Union except by cannibalizing the gold reserves of the United States.

The Fund report ignored the reserve problem as it manifested itself in the United States. At a seminar at Harvard University in October 1958, I pointed out that any substantial increase in the reserves of other countries would impair the reserve or liquidity position of the United States.[8] The Fund report did note that "there is always the possibility—slight though it may be—that there may be a run to convert dollars into gold and sterling into dollars or gold."[9] It seemed to me that the United States was at much greater risk than that from the increased preference for gold over dollars. My recommendations for dealing with the reserve problem were as follows.

1. Increase the Fund quotas of all members substantially and integrate them with the working reserves of members. The United States should treat its transactions with the Fund as transactions in monetary reserves. It had a net credit balance of $2.0 billion in the Fund in mid-1958, and it should use this to draw the currencies of the creditor countries in order to reduce the outflow of gold. The premium over the par value for these currencies would more than cover the transactions charge of the Fund—three-fourths of 1 percent.

2. Supplement the larger quotas with contingent resources that would be available to the Fund in an emergency. If the Fund could count on substantial additional resources over and above the gold and currencies subscribed by its members, it could meet very serious problems that might arise, including a run on the reserve centers. The best way to be assured of these supplementary resources would be for the Fund to issue three-year debentures and to have the great trading countries agree to acquire stated amounts under certain conditions.

Some of these recommendations were included in the General Arrangements to Borrow that the Fund made with the Group of Ten. However, this did not prevent the intensification of the gold problem of the United States, which had multiple causes. One arose from the new pattern of price behavior. Under the gold standard, a prolonged rise of prices, inflation, was ultimately followed by deflation. In the new monetary system, a prolonged rise of prices was usually followed by a period of stability, but the inflation was never reversed. This was a better system for maintaining a high level of output and employment, but it was not one in which a country could continue to convert its currency into gold at a price fixed in 1934.

The United States made the mistake of believing that it was on a gold stan-

8. Copies of this paper—"International Monetary Reserves for an Expanding World Economy"—are available in the libraries of the Brookings Institution, Washington, D.C., and the University of North Carolina at Chapel Hill (MS EMB[LTD] 58/13).

9. *International Reserves and Liquidity,* 28.

dard when it was not willing to abide by gold standard rules. The Gold Reserve Act of 1934 defined the dollar in terms of gold and authorized the Treasury to issue regulations under which it would buy and sell gold. The Treasury established the policy of selling gold for dollars at $35.00 an ounce plus one-fourth of 1 percent to those central banks that agreed to sell gold to the Treasury at this price minus one-fourth of 1 percent. When the International Monetary Fund began operations, the United States informed it that U.S. policy was to buy and sell gold freely in settlement of international transactions to fulfill its responsibility under Article IV. In addition to undertaking these obligations, the United States joined a pool of leading members of the Fund that sold gold in London in order to maintain the free market price at about the official price. Although the United States was only one of several countries in the Gold Pool, it actually provided all the gold sold in the free market, as the other countries repurchased from the United States the gold they supplied to the Pool.

Although the United States assumed these obligations—the only member of the Fund to do so—it nevertheless followed policies that ignored those traditionally associated with the gold standard. When the gold reserve fell, as it did in 1941–45 and after 1957, the United States did not reduce the money supply. Instead, it changed the gold reserve requirements twice and finally abolished them entirely. Besides, the United States resorted to subterfuges to exaggerate its gold holdings by inducing the International Monetary Fund to invest some of its gold in U.S. Treasury bills and later to place gold deposits with the United States to offset gold sales associated with the increase of quotas. The United States did not raise interest rates to stem the outflow of gold. Instead, it imposed an interest equalization tax on U.S. purchases of foreign securities and placed other restrictions on U.S. foreign investment. None of these devices could stop the gold drain. At last, in 1971, the United States recognized that its gold policy was a failure. It notified the Fund that it no longer bought and sold gold freely and terminated the gold convertibility of the dollar. The monetary system created at Bretton Woods lasted twenty-five years. That is how long it took to deplete the gold reserves of the United States.

Why Did the Bretton Woods System Break Down?

W. Max Corden

Various explanations for the breakdown of Bretton Woods have been advanced at the conference and in the massive earlier literature. It all seems rather con-

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fusing. Can they all be true? Broadly, they can be classified under the headings of "liquidity," "adjustment," and "confidence," but there are subcases among these.

For the purpose of this discussion, I focus on the Bretton Woods system as a system of fixed but adjustable exchange rates. It is this that broke down in August 1971 and was the principal feature. As noted by Michael Bordo (chap. 1 in this volume), the system had evolved as almost a fixed rate system without exchange rate adjustments. But it is still true that exchange rates were perceived as "adjustable," this being the reason for the speculative developments. In addition, the Bretton Woods system was conceived of as a gold-dollar system, the convertibility of dollars into gold supposedly creating a discipline for the United States and thus making the system "symmetrical." But this aspect was effectively ended in 1968, and it is doubtful that this discipline ever really operated. Other aspects, of course, were also important and have lasted, notably the general establishment of convertibility of one currency into another for current account transactions. The fact that the Bretton Woods institutions still exist, doing certain other work for which they were also originally intended, or doing new work, is also worth noting.

The Liquidity Problem

It is true that Robert Triffin predicted the breakdown of the system.[1] But it did not happen the way he predicted. The prediction was that, in the process of growth, the non-U.S. world would want more liquidity, and eventually the United States would decline to supply it. The shortage of liquidity would then generate import restrictions and deflation.

In fact, the United States passively supplied all the liquidity the world wanted. Depres, Kindleberger, and Salant's explanation was, in my view, the correct one:[2] the United States was meeting the world need for a banker who lent long and borrowed short. Countries that absorbed the extra liquidity had the option of appreciating their currencies and expanding domestic demand, but chose not to do so. Germany and France claimed that they did not want to accumulate dollars to the extent that they did, but chose not to take the necessary and available steps to fulfill their alleged desire. In fact, there was an adjustment problem to which I turn below, not a liquidity problem.

Suppose that the price of gold had been raised in terms of all currencies, or, alternatively, suppose that the stock of gold of the United States had been miraculously augmented. Would other countries have been happy to exchange their interest-bearing dollars into gold? Here the answer must surely be negative, provided we make a crucial assumption: that the price of gold was not expected to increase further. I shall return to that assumption shortly. The

1. See Robert Triffin, *Gold and the Dollar Crisis* (New Haven, Conn.: Yale University Press, 1960).

2. See Emil Depres, Charles Kindleberger, and Walter Salant, "The Dollar and World Liquidity: A Minority View," *Economist* 218 (1966): 526–29.

main point I wish to make is that, given that assumption, it was certainly not optimal for countries or individuals to switch out of dollars into gold. Furthermore, it is worth stressing that, since 1973, there has certainly been no decline in the willingness to hold dollar reserves even though dollars are not convertible into gold.

It may be argued that, in 1971, there was pressure to convert dollars into gold and that, as Michael Bordo (chap. 1 in this volume) has noted, the decision to end gold convertibility was triggered by French and British intentions to convert their dollars (or require gold guarantees for their dollar holdings). It might be said that, if only the U.S. gold stock had been larger, there would have been no need to shut the gold window, and so no breakdown.

But we had here a confidence, not a liquidity, problem. The desire to switch out of dollars into gold resulted from the belief that the dollar price of gold might rise. Would that belief have been different if the United States had had more gold? Possibly. In that case, one might say that the confidence problem was caused by the liquidity problem. More important, suppose that there had not been a preoccupation with the Triffin problem; would there then have been a desire to switch from dollars to gold? I doubt it. It is not the Triffin problem, but the belief in the Triffin problem, that caused the problem![3]

On balance, I conclude that there was not a liquidity problem at all. The essential reason why there was no such problem was the one advanced by Depres, Kindleberger, and Salant, namely, that the international capital market met the liquidity needs. There was no need to create special drawing rights (SDRs). They were created, yet the system broke down. It might be said that, while the SDR system was created, sufficient SDRs were not issued. But the reason they were not issued was that it was clearly seen that there was not a liquidity problem. The problem was the opposite: too much liquidity, leading to inflation.[4]

The Adjustment Problem

Here there are two kinds of explanations, to the first of which I have subscribed,[5] although the second is the more popular one.

3. These are my words, but a conversation with Robert Solomon led me to them.

4. I am persuaded by de Grauwe's discussion of the Triffin problem and of what actually happened (see Paul de Grauwe, *International Money: Post-War Trends and Theories* [New York: Oxford University Press, 1989], 23–30). The dramatic increase in U.S. dollar liabilities (and hence the decline in the U.S. liquidity ratio) that began in the late 1960s and became a flood in 1970 and 1971 did not result from a conversion of dollars into gold by central banks, as predicted by the Triffin analysis. (Indeed, from 1966 to 1969, the gold holdings of the other central banks actually fell, the result of sales in the private gold market, and after that they stayed roughly constant.) Rather, it resulted from the confidence problem discussed below. The potential Triffin dilemma was solved, in de Grauwe's view, by the creation of SDRs—and thus would not have led to the breakdown of the system.

5. See W. Max Corden, *Inflation, Exchange Rates and the World Economy* (Chicago: University of Chicago Press, 1977; 3d. ed., 1986).

1. The Bretton Woods system allowed for adjustment in circumstances of "fundamental disequilibrium." It was, after all, not constituted as a fixed exchange rate system, although it may have evolved that way. Countries *chose* not to adjust. In a symmetrical system, the United States could have adjusted by devaluing (raising the dollar price of gold), while other countries could depreciate or appreciate as appropriate, subject to IMF approval (which they always obtained when they sought it). Once the system clearly evolved into a dollar standard, there was no need for the United States to take the initiative. But, since exchange rates are relative, the other major countries could have appreciated and so, effectively, devalued the dollar.

The question, then, is why the exchange rate adjustment option was forgone. There were two reasons. The first was that countries (notably Germany) did not wish to appreciate because of concern for their export industries. Implicitly, at least, they were willing to accumulate dollars—even though they claimed that they did not want them—for the sake of the export interests. Eventually, the dollar accumulation would lead to more domestic inflation, which would indeed bring about some real appreciation, but not as much as if nominal appreciation had prevented the dollar accumulation. Furthermore, the United States did not wish to devalue (raise the price of gold) because, among other reasons, other countries were expected to follow. In other words, because of concern for their export industries, other countries would not allow their currencies to appreciate relative to the dollar.

Second, countries avoided devaluations because of the expectation that this might create of further devaluations, thus generating further speculation against the currency. Possibly, the concern with prestige—devaluation hurting prestige—may have been a separate factor, but, in the main, the preoccupation with prestige was simply a manifestation of this concern for the effects on expectations. For example, if the British government had felt in 1964 that it could devalue without generating further speculation against the pound, it might well have done so. But this was the confidence problem, to which I come later. This factor also played some part in explaining reluctance to appreciate since appreciation might stimulate further capital inflows.

The breakdown in August 1971 resulted from a determined attempt by the U.S. authorities to bring about real devaluation of the dollar to improve U.S. competitiveness, which had been eroded. It could have happened within the system if other countries had been more cooperative, appreciating their currencies sufficiently relative to gold while the dollar price of gold stayed unchanged, or agreeing to maintain their gold par values if the United States devalued the dollar. This motive for the events of 1971 has been stressed by Fred Bergsten (see his remarks in chap. 13), and the argument seems persuasive to me. The aim was, essentially, to force adjustment. The concern was not primarily with the accumulation of dollar assets by foreigners but with the competitiveness of U.S. export- and import-competing industries.

To summarize, this category of explanations essentially places the blame

on countries other than the United States for failing to operate the system properly by adjusting appropriately at intervals.

2. The second approach to the adjustment problem blames the United States. The monetary and fiscal expansion of the United States generated the fundamental disequilibrium that created the need to adjust. The alternative to adjustment was that other countries had to absorb a flood of dollars. One could then argue as follows. The United States created the disequilibrium in the first place; had it not done so, there would have been no adjustment problem. But other countries failed to adjust in response to the disequilibrium. Had they adjusted—as they could have done within the system—there would also have been no adjustment problem. There was thus a "partnership in crime." Without this partnership, the system would not have broken down.

There are two important qualifications to this "partnership" view. The first fixes the blame firmly on the United States. In this view, adjustment to the U.S. expansion was not comparable to adjustment to other kinds of shocks and more country-specific developments. The United States was at the center of the system. It was unreasonable to expect numerous countries to appreciate—and to expect them to do so in a timely fashion even when the full nature of the developments was not understood and a fixed exchange rate habit had developed. Furthermore, the surplus countries would have had to appreciate collectively since, if any one of them did on its own, it would lose competitiveness relative to the others. Thus, the U.S. expansion did put the system under an exceptional degree of strain. To that extent, special blame attaches to U.S. policies. Given that the system had evolved into a dollar standard, the United States had an obligation to maintain conservative monetary policies that would avoid the need for many other countries to appreciate relative to the dollar.

The second qualification is that there was also a need for adjustment for reasons other than U.S. fiscal and monetary expansion. Because of differential productivity developments, the U.S. real exchange rate did need to depreciate, and (as Paul Krugman pointed out at the conference), this real depreciation since 1973 has stuck. More generally, there will always be a need for adjustment. And, if there is a sustained reluctance to adjust, the system will eventually break down because of the confidence problem. Presumably, if the system had not broken down finally in March 1973 as a result of the expansionary U.S. policies, it would have done so later as a result of the first oil shock and its consequences and, if not then, in the early 1980s.

The Confidence Problem

By now it will be evident that, in my view, the fundamental cause of the breakdown of Bretton Woods was the confidence problem. In other words, a system of fixed but occasionally adjusted exchange rates is incompatible with high capital mobility. Loss of confidence leads to speculative crises and even-

tually to forced devaluations or a need to let rates float. Because of leads and lags and the opportunity for capital movements between different parts of multinational companies, it presents problems even when there are comprehensive exchange controls. The system had to break down for that reason. As Richard Cooper has said, (in his Comment on Bordo, chap. 1 in this volume), it was "fundamentally flawed." Williamson wrote, "The adjustable peg broke down because it did not provide a viable crisis-free method of changing exchange rates in an era of capital mobility."[6] The reluctance to devalue within the rules of the system—the concern with prestige—was explained by an attempt at commitment, to avoid loss of confidence. The number one culprit was the growing and increasingly efficient international capital market.

The confidence or speculation problem could have been avoided by frequent small exchange adjustments. This could have taken the form either of a "crawling peg"—already proposed by Williamson[7]—or of more intermittent small realignments as in the early phase of the EMS. Alternatively, firm commitments to regimes of permanently fixed exchange rates would have had to be made—if such commitments could have been made credible. While in both cases it would not have broken down dramatically and become transformed into a floating rate system, it would no longer have been the Bretton Woods system.

The Perspective of Policymakers

Robert Solomon

I shall focus on the views of policymakers, abroad as well as in the United States, on exchange rates, international liquidity, and international monetary reform under the Bretton Woods system.

Exchange Rates

In reaction to the competitive depreciations of the 1930s, the Bretton Woods Agreement provided that members of the IMF had to get its permission to alter their par values and that such changes were to take place only when a "fundamental disequilibrium" existed. The Agreement did not define *fundamental disequilibrium.*

While IMF members were committed to having par values and to keeping their currencies within a narrow range around those par values, the system was not expected by the founding fathers to be one of fixed exchange rates.

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6. John Williamson, *The Failure of World Monetary Reform, 1971–74* (New York: New York University Press, 1977), 51.

7. See John Williamson, *The Crawling Peg,* Princeton Essays in International Finance, no. 50 (Princeton, N.J.: Princeton University, International Finance Section, 1965).

And it was not a fixed-rate system in its operation. A number of alterations of par values occurred, not only among developing countries, but also among industrial nations: a general downward move of most European currencies in 1949, two French devaluations in 1957–58, a small appreciation by Germany and the Netherlands in 1961, the British devaluation of November 1967, and another German revaluation and French devaluation in 1969.

But policymakers regarded most of these exchange-rate adjustments as aberrations. And they usually occurred in an atmosphere of crisis. In countries with deficits, the need to devalue was viewed as a policy failure and a political setback. The most dramatic instance of this attitude was General de Gaulle's refusal to lower the value of the franc in 1968 after an international meeting at which there appeared to be a consensus that France would depreciate. Less than a year later, his successor carried out the devaluation.

The United States was in a unique position. It was the only country that was not expected to maintain a par value in terms of other currencies; instead, it stood ready to convert official holdings of its currency into gold for foreign monetary authorities. And countries around the world held their reserves in dollars on the assumption that the dollar price of gold would remain fixed at $35.00 per ounce. In the view of American policymakers, if the official gold price were to be raised—which a dollar devaluation implied—those countries with official dollar reserves would no longer be willing to hold them. They would cash in their dollars for gold, and the U.S. gold reserve would be depleted. The result would be that the gold exchange standard would break down. The analogy was with a bank: if it were to reduce the value of depositors' claims, a run on the bank would follow. While many countries were reluctant to have their currencies depreciate under the Bretton Woods system, the United States had this special reason for avoiding an overt depreciation of the dollar.

If the dollar had to remain fixed relative to gold, the United States could not alter its exchange rate. This created a problem when the U.S. balance of payments—especially the current account—weakened, as it did at the end of the 1950s and again, under the impact of the Vietnam War, in the late 1960s. The only way to bring about a downward adjustment of the dollar was for other countries to agree to appreciate *their* exchange rates. U.S. policymakers were thus in favor of appreciations and generally opposed to depreciations of other major currencies. The most striking example of this attitude was the enormous American effort—ultimately unsuccessful—to help the British authorities stave off sterling devaluation in 1964–67.

The appreciation option was not looked on with favor by European and Japanese policymakers. They did not want to be in the position of bailing out the United States whenever it had a balance-of-payments problem. Or, to put it differently, they wanted to maintain "discipline" on the United States. They believed that, if they stood ready to upvalue their currencies whenever the U.S. current account weakened or capital outflow increased, the Americans

would feel free to pursue policies that were too expansionary and therefore too inflationary, that is, to engage in "benign neglect" of the balance of payments.

The balance of payments was, and perhaps still is, a much more important discipline on domestic policies in Europe than in the United States. European policymakers, except for those in Germany, believed that the only way to make restrictive fiscal and monetary policies palatable to their citizens was to invoke the balance of payments. They tended to impute the same mind-set to the United States even though that is mistaken. This was a major reason why they were unwilling to agree to appreciations of their currencies relative to the dollar.

In that asymmetrical situation, U.S. policymakers were in a box. The dollar price of gold could not be changed without bringing down the system. And therefore the United States could not achieve a depreciation of its overvalued currency without first abandoning gold convertibility, as was finally done twenty years ago last August.

International Liquidity

While all industrial country currencies were convertible after 1958, the United States undertook a special type of convertibility.

The belief of European policymakers, referred to earlier, concerning balance-of-payments discipline on domestic policies, was closely related to their attitude toward convertibility. They believed that it was only the American fear of losing gold reserves that acted as a constraint on American policies. Thus, some European central banks did not accumulate dollars when in overall balance-of-payments surplus; rather, they converted dollars beyond working balances into gold at the U.S. Treasury.

The Bretton Woods system made no explicit provision for increasing countries' international reserves in a growing world economy, aside from a generalized increase in the price of gold, which the United States could not agree to, as I have argued. The amount of newly mined gold that moved into reserves was rather small ($300 million per year in 1952–69). A more important source of new reserves was the deficit in the U.S. balance of payments.

This situation led to Robert Triffin's famous dilemma: if the U.S. balance-of-payments deficit were eliminated, other countries would be deprived of additions to reserves; but if that source of new reserves continued, instability might arise as U.S. reserve liabilities rose relative to its reserve assets.

The way to resolve this dilemma was to create a new international reserve asset. And that led to the special drawing right (SDR). It is worth recalling that, in the four years leading up to the first SDR allocation at the beginning of 1970, the United States did not add at all to world reserves. In 1969, when the decision was made, distributing the new reserve asset appeared justified.

But policymakers also differed on the role of the SDR. Americans looked

on the new reserve asset as a supplement to existing reserves, while many Europeans wished to see it as a substitute for dollars.

Reforming the System

Two reform efforts were conducted in the period up to 1971. A new international reserve asset—the SDR—was created after lengthy study and negotiations beginning in 1962. Then, in the late 1960s, an effort was made to introduce greater flexibility of exchange rates without abandoning the par value system.

The basic asymmetry built into the Bretton Woods system, and attitudes toward that asymmetry, help explain the outcomes of those reform efforts.

All the variants of greater exchange-rate flexibility had to assume that the dollar would remain fixed—that the United States would be passive with respect to its exchange rate. The policymakers of Europe and Japan were not sympathetic to an approach embodying that asymmetry. Thus, that reform failed.

On the other hand, the SDR negotiations did succeed in creating a new international reserve asset, partly because that reform appeared to move the system toward greater symmetry. A new reserve asset, created by the IMF and bearing the signature of no country, was acceptable both to the United States—which saw a global need for additional reserves—and to other countries, which believed that the new asset would lessen reliance of the system on the U.S. dollar.