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OR A LIMPING DOLLAR STANDARD?

RONALD I. McKINNON



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The author, Ronald I. McKinnon, is Professor of Economics at Stanford University. He has been a consultant to such international agencies as IBRD and OAS, as well as to the U.S. Treasury and the Federal Reserve Board. Among his publications are several on international trade and finance, including two previous Princeton Essays in International Finance (Nos. 74 and 84) and a Princeton Study (No. 16, with Wallace E. Oates). He has also recently published a book, Money and Capital in Economic Development (1973), which deals with the monetary and financial problems of poor countries.

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PETER B. KENEN, *Director*
International Finance Section

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A New Tripartite Monetary Agreement or a Limping Dollar Standard?

The French withdrawal from the common European float in January 1974, together with the Italian and British withdrawals in 1972, seem lethal for European monetary unification. Apparently, the monetary policies of individual European countries diverge too much for a common-currency system to be a practical goal.

Similarly, the Nairobi Conference of September 1973 showed that joint negotiations among the one-hundred-plus nations of the International Monetary Fund are a bureaucratic impossibility, even if the substantive technical problems involving "symmetry" and "seigniorage" could be resolved—which they have not been so far. Hence, there is in prospect no worldwide successor to Bretton Woods, which after all was negotiated by only two countries—Britain and the United States.

While much bureaucratic inertia exists in each institution, the European Monetary Union and the International Monetary Fund seem incapable of contributing to world monetary order within their own terms of reference. Yet the world faces significant monetary instability with the threat of inflation and the breakdown of the payments arrangements that underlie international trade.

As a practical matter, therefore, what minimum set of rules can sustain a coherent monetary "system" to preserve current-account convertibility among nations, provide a stable international numeraire for longer-term contractual arrangements, and furnish an attractive store of value for liquid assets? I shall argue that the feasible alternatives are fairly narrowly circumscribed between what has been called a "limping dollar standard" (Aliber, 1973) on the one hand, and a new tripartite currency arrangement among Germany, Japan, and the United States on the other.

I shall look first at the advantages and inadequacies of a dollar system "managed" solely by the United States in a manner incidental to American domestic policy. Then the potential supporting roles of the two other largest trading countries—Germany and Japan—within the dollar system are outlined. My hypothesis is that successful mutual stabilization of these three currencies could be sufficient to stabilize the whole international economy almost irrespective of what other countries acting individually might do. Nevertheless, countries that were not parties to the tripartite agreement could significantly benefit from it.

Dominant Countries and Key Currencies

In a formal sense, the closing of the gold window in August 1971 by the U.S. Treasury signaled the end of the gold-dollar exchange standard; insofar as other nations continued to hold large dollar reserves, an unalloyed dollar standard was begun. Yet the world had actually been on a functioning dollar standard for many years prior to 1971, because major trading nations had refrained from heavy use of the U.S. gold window on the knowledge that with heavy use it would have to close. More important perhaps, American monetary policy had been conducted largely independently of its gold position.

The economics of a "pure" key-currency system such as the dollar standard have been spelled out by many authors including the present one (McKinnon, 1969). If a major trading nation with a dominant position in the world economy successfully stabilizes the prices of tradable goods denominated in its own currency, allows free convertibility on current and capital account, and at the same time maintains a highly developed capital market to which both foreign governments and private parties have easy access, a key-currency system can be efficient and non-exploitative. The resulting asymmetry in world monetary arrangements will always be politically objectionable to many, inside and outside the country in question. Nevertheless, a benign policy that allows foreign central banks to peg freely to the center country's stable currency is likely to be the simplest *consistent* system that can be devised in a world of separate political jurisdictions.

In his recent book, *The World in Depression: 1929 to 1939* (1974), Kindleberger argues strongly that one nation must assume monetary leadership, as was the case when Britain managed the international gold standard prior to 1914. Indeed, he attributes much of the Great Depression to the increasing inability of the British to manage the international monetary system in the late 1920s and early 1930s. British impotence was coupled with American reluctance to assume leadership in maintaining free commodity trade, lending countercyclically to the state of its own current account, and allowing foreign central banks to "discount freely" with the Federal Reserve when crises arose. Kindleberger argues that American economic policy was actually perverse as Britain weakened. The mantle of leadership fell between Britain and America, and the international economy began to disintegrate *prior to* the internal monetary collapse of the United States in 1931-33.

Kindleberger's thesis is persuasive; in great contrast to its role in the 1920s and 1930s, the United States did lead from 1945 to the mid-1960s under the international "cover" of the IMF system, just as Britain had

led prior to 1914 under the cover of the gold standard. The rounds of negotiated tariff reductions conducted under the Trade Agreements Act and the maintenance of free dollar convertibility facilitated the restoration of multilateral commodity trade among industrial countries. Marshall Plan lending, World Bank plus official U.S. bilateral lending, and the "automaticity" of foreign borrowing from the private capital markets in New York financed the American current-account surplus. Finally, "discounting" in crises was provided to foreign countries through IMF dollar loan tranches and international swap agreements with the Federal Reserve Bank.

Without the American inflation and fiscal instability that began in 1965, there is little reason to doubt that indefinite continuation of the dollar-cum-IMF system would have been economically satisfactory to all participants. Of course, the limited stock of monetary gold would eventually have forced the closing of the American gold window (Triffin, 1960), but some legal artifice could have been devised to satisfy the IMF agreements. Otherwise, the pure dollar system would simply have lost its international legal cover, while continuing to perform *de facto* its vital economic role.

The Limping Dollar Standard

But the elbow room (margin for error) the pure dollar system had has been continually eroded by the inflation in the dollar prices of tradable goods from 1965 to the present. Major trading partners of the United States, such as Germany and Japan, found their currencies tending toward undervaluation, even though they were not autonomously generating internal inflationary pressure.¹ Appropriate exchange-rate adjustments proved particularly difficult because there was no convenient machinery for the United States to devalue simultaneously against all other currencies given its central or "*n*th" currency position, and the difficulty was exacerbated by the unwillingness of foreign countries to reduce the domestic currency value of their dollar reserves. Any one major trading partner of the United States was reluctant to initiate alone a discrete appreciation of its currency against the dollar, since, *perforce*, this would cause appreciation against other currencies that were not overvalued.

¹ In this essay, I shall follow the convention of referring to price inflation in tradable goods only, which in most countries is best approximated by secular movements in the wholesale price index. For example, throughout the postwar period Japan experienced much higher inflation in the consumer price index (which includes nontradable services) than did the United States, but Japanese wholesale prices (tradable-goods prices) remained more stable than did the American WPI. For further analysis of relative movements in these indices, see McKinnon (1971).

Only complex multilateral bargaining, with threats and counterthreats such as those that preceded the Smithsonian Agreement, produced an officially sanctioned adjustment in December 1971 and again in February 1973. However, the adjustments were so long delayed and the dollar overhang was so great that no official parities seemed credible. Extraordinary speculative fluctuations in relative currency values have continued until the present. Clearly, a "pure" key-currency system is not well designed to deal with instability in the key-currency country itself, although it can handle considerable upheaval elsewhere.

These large changes in relative currency values, in addition to the price inflation in the United States, have left the dollar less useful as an international numeraire for, say, a European agricultural policy or long-term investment commitments in the production of and exploration for petroleum. Bilateral international barter agreements have become more attractive. The decline in the dollar's monetary qualities has left foreign official holders of dollars dissatisfied with the large balances they were obliged to acquire because of disequilibrium exchange rates. This immediate dissatisfaction may be mitigated when foreign central banks switch out of direct dollar claims on the United States to indirect dollar claims on Eurodollar banks with a higher (unregulated) yield. Yet further losses of control over the European monetary base and a further expansion in dollar reserves may be the unexpected results of increasing the Eurodollar deposits held in official portfolios (Machlup, 1971).

Most important, perhaps, disequilibria in the foreign-exchange markets have begun to impinge significantly on the formation of monetary and fiscal policy *within* the United States. For the first time since World War II, imports and exports had a massive short-run impact on domestic-resource allocation and commodity-price movements. In periods of overvaluation prior to 1973, sharp increases in imports of manufactures revived latent protectionist sentiment, particularly in American labor unions, as manifested by the Burke-Hartke proposal to use quotas to cut American imports by half their 1973 levels. Special quotas negotiated with countries exporting to the United States were used to dampen the inflow and, fortunately, more stringent legislation to reduce American imports failed narrowly. Clearly, the exchange rates and relative tax policies of major international competitors matter much more than in the past.

The marked depreciation of the U.S. dollar in the first half of 1973 contributed to the extraordinary rise in dollar commodity prices that in turn induced the continuation of price and wage controls. Unlike the situation immediately after World War II, commodity prices have come to be set in world markets rather than simply Chicago or New York. Thus ex-

change-rate policies followed by important countries such as Germany and Japan can significantly influence the internal American price level.

Moreover, large changes in exchange rates among major currencies may well reduce general world confidence in holding fiat money—in comparison to, say, commodities or real estate. In the recent regime of floating exchange rates and large relative changes in currency values, most countries have experienced an increase in the velocity of circulation of their domestic currencies. The private demand for any single national money may, in significant measure, depend on the stability of its relationship to other national monies.

In financial markets, foreign central banks are now important buyers or sellers of U.S. government securities—particularly U.S. Treasury bills. Short-term interest rates and money-market conditions in the United States now depend significantly on how foreign central banks manage their portfolios of dollar assets. Thus, the U.S. capital market can no longer be considered an enormous sink within which official portfolio choices of foreign central banks can be accommodated without significant perturbations.

Let us illustrate one such perturbation that contributes to the instability of exchange rates or fluctuations in official holdings of reserves. Consider the immediate impact of a rise in the U.S. deficit on the *current* account of the balance of payments that is not covered by offsetting private capital inflows. To simplify, suppose further that a German trade surplus is the counterpart of the American trade deficit. Either to support an official exchange parity or simply to prevent large exchange-rate movements, the German government buys dollars in exchange for marks. As is normally the case, the resulting official German dollar deposits are then invested immediately in interest-bearing government securities—say, U.S. Treasury bills. (In the 1970s, foreign official institutions have held between 20 and 40 per cent of the marketable U.S. Treasury bills held outside the Federal Reserve and U.S. government agencies.) This large official purchase of Treasury bills in the open market drives down the bill rate and reduces short-term interest rates generally in the American money market. Hence, an *outflow* of short-term private capital to Germany from the United States is induced.

But this private capital outflow is perverse. It aggravates the initial American deficit in commodity trade! Because transactions in U.S. government securities by foreign central banks are now sufficiently large to cause such destabilizing of private capital movements, in my view they contributed to the unnecessarily rapid exchange-rate and reserve movements experienced by major trading countries from 1969 to 1974. (This point is developed at greater length in McKinnon, 1974.)

On the other hand, the influence of the international economy on the United States has often been benign. The inflation experience in the United States in the first few years of the Vietnam War could well have been worse if the United States had not been able to increase its net absorption of foreign goods and services. The deteriorating trade account dampened American price inflation. Similarly, unwise monetary "crunches" in 1966 and 1969 were mitigated to some degree by access to the unregulated Eurodollar market on the part of American borrowers.

But, benign or not, major events in the international economy, as magnified through the foreign exchanges, can no longer be ignored easily by American policy makers. This is particularly true in periods of great economic instability when the United States must worry about discrete changes in the price and cost positions of its major trading partners. Even if the current cycle of inflation and exchange-rate disequilibria in the world economy is mainly American in origin, the lagged international repercussions reflected back to the United States may provoke a relapse to isolationism and autarky of the sort experienced in the late 1920s. A more conscious "international" monetary policy by the United States may be necessary to stabilize the world system and stabilize individual national monetary policies along with it.

The Position of Germany and Japan in Strengthening the Dollar System

To replace the dollar standard completely with a symmetrical monetary system born *de nouveau* from the deliberations of the Group of Twenty is virtually impossible technically. Agreements on rules for multiple-currency interventions, trigger points for reserve holdings to change par values, and the valuation of SDRs for formal contractual arrangements cannot be obtained satisfactorily in principle, let alone as legal arrangements binding on dozens of diverse countries. As we have seen, Bretton Woods evolved into a legal "cover" for a key-currency system based on the dollar. With the current disarray in the political objectives of the principal negotiating parties and their much greater number, utopian schemes to introduce complete symmetry in international economic relationships (with the IMF acting autonomously as a world central bank) may well increase international instability rather than reduce it. At best, another legal cover for the limping dollar standard might be devised.

A more direct but limited approach to reform accepts the key-currency system based on the dollar but recognizes that the United States alone may no longer be able to manage an international dollar system in a satisfactory manner. What additional real economic support (as distinct from legal cover) might be obtained from major trading partners? Fur-

thermore, how wide should be the international ambit for negotiating such support? Three-cornered negotiations among Germany, Japan, and the United States would be more complex than the old British-American negotiations at Bretton Woods, but the number involved is at least bu-reaucratically manageable.

Are these three countries sufficiently large and important to provide the necessary mutual support for the international-stabilization objectives outlined above? In 1973 the triumvirate already accounted for 34.4 per cent of the world commodity trade, and for 46.8 per cent of the trade among industrialized countries (see Table 1).

TABLE 1
EXPORTS OF GERMANY, JAPAN, AND THE
UNITED STATES IN WORLD TRADE
(billions of U.S. dollars)

Year	Germany (1)	Japan (2)	U.S. (3)	Three- Country Total (4)	Industrial Countries (5)	World Trade (6)	Percentage (4)/(5)	Shares (4)/(6)
1973	\$67.5	\$37.0	\$71.3	\$175.8	\$375.9	\$510.5	46.8%	34.4%
1963	14.6	5.5	23.4	43.5	95.4	136.0	45.5	32.0
1953	4.4	1.3	15.8	21.5	47.8	80.0	45.0	26.9

SOURCE: International Monetary Fund, *International Financial Statistics*, various issues.

If one adds smaller countries with convertible currencies that are closely tied to the economic policies of members of the triumvirate, the effective share of world trade would rise. For example, Canada has been closely tied to the United States, with a stable exchange rate; several small and medium-sized European countries remain part of a common float with Germany.

More impressive, perhaps, Germany and Japan together probably now hold the majority of official dollar reserves that are direct claims on the United States (see Table 2). The word "probably" is used because Germany and Japan were parties to an understanding not to redeposit official reserves in the Eurodollar markets, and one can interpret their statistics on dollar reserves as mainly direct claims on the United States.

Finally, if any agreement to stabilize relative currency values is to be economically manageable and credible, the historical experience of the three countries regarding inflation in *tradable*-goods prices should not be too dissimilar. Of large trading countries, our triumvirate has had much

TABLE 2
OFFICIAL DIRECT DOLLAR CLAIMS ON
THE UNITED STATES
(billions of U.S. dollars)

Period	Direct U.S. Liabilities (1)	Japanese Dollar Reserves (2)	German Reserves (3)	Total of Germany and Japan (4)	Percentage Share (4)/(1)
1973	\$66.78	\$10.20	\$25.05	\$35.25	52.8%
1972	61.52	16.48	17.20	33.68	54.6
1971	50.65	13.78	12.57	26.35	52.0
1969	16.00	2.61	2.75	5.36	33.5
1967	18.19	1.45	2.87	4.32	23.7
1965	15.83	1.57	1.94	3.51	22.2
1963	14.42	1.59	3.26	4.85	33.6
1961	11.83	1.20	2.86	4.06	34.3
1959	10.12	1.08	1.89	2.97	29.3
1957	9.14	.81	2.57	3.38	37.0
1955	8.26	.99	2.01	3.00	36.3
1953	6.47	.87	1.41	2.28	35.2

SOURCE: International Monetary Fund, *International Financial Statistics*, various issues.

lower rates of inflation than, say, France or Britain (see Table 3). Moreover, with 1953 as a base and applying the relative version of purchasing-power-parity theory, it does seem from Table 3 that the discrete negotiated devaluations of the dollar in 1971 and 1973 relative to the mark and the yen are about "right" for realigning wholesale price indices—the only available proxy for the prices of tradable goods. Hence, it is not patently ridiculous to suppose that the monetary policies of the three participating countries could be formally bound together in a somewhat firmer manner than in the past. If carefully spelled out, a common monetary policy could well enhance domestic economic stability in each of the three countries, as well as meeting the international objectives sketched above. But this remains to be demonstrated.

The trappings of the dollar system would be retained intact. Germany and Japan would continue to establish the exchange rates among all three currencies by intervening only in terms of dollars, and countries not party to the agreement could so establish their own international currency values if they wished. Concomitantly, Germany and Japan would continue to hold only dollars as reserve assets, and the United States would not contemplate building up large claims in any other currency. Nothing envisaged in the tripartite agreement would be inconsistent with current

TABLE 3
RELATIVE MOVEMENT OF WHOLESALE PRICE INDICES^a FOR
MAJOR TRADING COUNTRIES IN DOMESTIC CURRENCIES
(1963 = 100)

	1953	1963	1972	Per Cent Change 1953-72	1973 ^b
Lower-inflation countries:					
Japan	98.2	100	112.4	14.5%	130.2
Germany	93.9	100	115.9	23.4	123.2
United States	92.4	100	126.0	36.4	143.4
Higher-inflation countries:					
France	66.3	100	132.9	100.5	152.4
United Kingdom	83.2	100	146.6	76.2	157.3

^a Some official indices available for industrial goods only.

^b The explosive increase in primary-products prices relative to industrial prices in 1973 effectively makes comparison impossible among wholesale-price indices for that year. The series for the United Kingdom and Germany includes only industrial goods. Hence, the long-run trend is calculated only for 1953 to 1972.

SOURCE: International Monetary Fund, *International Financial Statistics*, various issues.

international monetary practices, nor with the old Bretton Woods Agreement shorn of gold clauses. Hence, no legal or economic obligations to the rest of the world need be broken if these three participating countries establish a closer monetary relationship. The idea is to strengthen the current international system, not to replace it.

An Idealized Agreement for Controlling the Triumvirate's Monetary Base

To the wary, a new international monetary pact immediately connotes some attempt—probably unsuccessful—to fix exchange rates among the negotiating parties. The Smithsonian Agreement and the European Monetary Union are merely the two most recent casualties of this one-dimensional approach.

But the purchase or sale of foreign exchange for domestic currency is simply one technique for changing the domestic monetary base, and it can be as important as an open-market operation or rediscounting. Conceptually, each national central bank can be divided into two departments: (1) a "committee" that changes the effective national monetary base by domestic open-market operations, by rediscounting, or by changing reserve requirements; and (2) a "fund" that alters the monetary base by

buying or selling spot foreign exchange, or taking positions in forward currency markets to influence private capital flows. Indeed, a *consistent* national monetary policy is one in which the committee and the fund support rather than oppose each other in altering the national monetary base. Interventions to fix a nation's exchange rate by its fund are viable only if domestic credit expansion by its committee does not offset or sterilize what the fund is doing.²

Once this consistency in national monetary policy is achieved, an important object of international policy becomes the monetary base of the union as a whole. For example, a tripartite agreement would be concerned with the total size and growth of the aggregate money supply of Japan, Germany, and the United States, and with its distribution among these three countries.

To simplify, assume the problem of monetary control in each country to be one of managing the monetary base—narrowly defined to be commercial-bank reserves held with the central bank plus coin and currency held by the public. The relationship of the monetary base to privately held currency, demand deposits, or time deposits is assumed to be strongly positive for all those countries. (Substantial asymmetries across our three countries between the monetary base and broader definitions of money might warrant further investigation.)

The key to stabilizing the aggregate monetary base for the triumvirate as a whole is to limit the rate of *domestic* credit expansion by the committee of each central bank. Each country could project secular rates of expansion in *real* gross national product, and then tentatively calculate the rate of nominal monetary expansion by domestic techniques that was consistent with stability (zero movement) in a national index of tradable-goods prices—possibly approximated by the wholesale price index (WPI) for the national currency. In the long run, no net expansion in the foreign component of each national monetary base would be envisaged. Hence, domestic credit expansion would be set on a smooth path of secular growth, with the important understanding that, over the long run, tradable-goods prices would not move upward or downward in any national currency.

If realized in practice, this last understanding of zero inflation in tradable-goods prices is sufficient to permit the maintenance of stable foreign-exchange parities within the triumvirate. However, indices of consumer-goods prices would probably move upward more rapidly in those countries whose GNP per capita was growing faster, even if the average prices of goods entering foreign trade were stable across all three. In other words,

² For a more detailed analysis of the appropriate relationship between committee and fund under alternative monetary regimes, see McKinnon (1971).

one would expect Japanese consumer prices (inclusive of nontradable services) to rise more rapidly than American consumer prices, as has been the secular experience since World War II (see McKinnon, 1971). It is therefore important to specify the correct (tradable goods) price index as a policy objective if exchange-rate stability across currencies is to be maintained.

Having established the correct price indices for the tripartite agreement and having set a course of smooth secular expansion in the *domestic* component of each country's monetary base, what then must happen to the foreign component to make a consistent three-country system? Since there would be no *secular* expansion in the foreign component, the question arises as to whether month-to-month variation would be countenanced. One course of action is simply to fix at zero the (incremental) foreign component of the monetary base in each country, even in the short run. This would be done by having no daily official intervention in the foreign-exchange markets to maintain official parities, and relying on the compatibility of domestic credit expansion by each national central bank to provide stability in exchange rates. One could envisage a tripartite monetary agreement with quite strong transnational implications, but with no mutually supporting intervention in the foreign-exchange market! I mention this possibility in part to stress the importance of agreeing on rates of monetary expansion in general, rather than agreeing merely on the direct pegging of exchange rates in particular.

If the three economies involved had not recently suffered substantial inflation in the prices of tradable goods and had not experienced large gyrations in relative exchange rates, official intervention in the foreign-exchange markets would be neither necessary nor advisable to secure exchange stability. The private currency markets would already have "seen" domestic rates of credit expansion by each central bank to be compatible with stable exchange rates—as in the Canadian-American experience without formal par values over much of the postwar period.

However, high and variable price inflation, and considerable change in the relative values of the dollar, yen, and mark, have left private expectations of future price movements highly unstable at the present time. Considerable suspicion exists regarding official monetary intentions. In short, some strong indication of the willingness of the three governments to engage in mutually stabilizing monetary policies does seem necessary.

Secular restraints on domestic credit expansion, as outlined above, are one tangible signal of official intent to control the monetary base over the long run. But the re-establishment of formal exchange parities among the dollar, mark, and yen would be dramatically visible evidence of official determination to stabilize relative currency values and to bind the three

monetary policies together in the short run. The terms on which official intervention might take place remain to be spelled out, however, along with their relationship to the monetary base and reserve holdings in each participating country.

Exchange Reserves and the Nonsterilization of International Payments Flows

Continuing use of the dollar as the accepted intervention currency is a great convenience. The German government maintains a mark/dollar rate, and the Japanese government also intervenes only in dollars to fix the dollar price of the yen. The cross rate between the yen and the mark is established automatically by private arbitrage. Even if a narrow band is used, say 1 per cent on either side of each dollar parity, the mark/yen rate would be confined to a maximum fluctuation of 4 per cent—sufficiently close to our definition of “stability.” As long as the U.S. Federal Reserve Bank remains passive, this system has the further advantage that no inconsistent official interventions in the foreign-exchange market would arise.

The “cost” of this system to the United States is an enforced official passivity in foreign-exchange transactions. The “cost” to Germany and Japan is the need to have large dollar holdings—albeit interest-bearing—to facilitate intervention. Fortunately, Germany and Japan already have large dollar reserves for the purpose at hand, and the internal guidelines for domestic credit expansion in all three countries would limit the need for future acquisitions. In return, these same guidelines for domestic credit expansion would limit any secular tendency for the dollar to become undervalued or overvalued relative to the currencies of its two major trading partners. Thus, the enforced American passivity would be tolerable, provided that the initial exchange parities were set correctly, perhaps by using some version of the purchasing-power-parity theory as a rough approximation.

What remains to be specified, however, is the short-run impact of official interventions in the foreign-exchange markets on each country’s monetary base and that of the union as a whole. Two important principles seem to stand out.

First, surpluses or deficits in the official-settlements balance of payments of any one country with respect to the other two should have a “significant” impact on that country’s domestic monetary base. A country in deficit should contract its monetary base while surplus countries expand. Full sterilization of payment flows within the triumvirate would be contrary to the terms of the agreement.

Second, contraction in the foreign component of the monetary base in the deficit country would be matched quantitatively by an expansion in the surplus country. A rough symmetry would exist between deficit and surplus countries, so that payments flows among the three countries would not be allowed to expand or contract the net monetary base of the triumvirate as a whole.

The nonsterilization rule and the symmetry rule are both important in assuring mutual adjustment without monetary instability in the aggregate. In effect, secular expansion in the monetary base of the triumvirate would be provided by domestic credit from central banks, whereas short-run variation around this trend for any one country would arise mainly from its net balance of payments with the other two members.

How do these principles differ from current practices in managing international payments flows, reserve positions, and national monetary bases? For Germany and Japan, the needed departure from traditional practice is somewhat different from the change required of the United States.

When the Bundesbank acquires dollars for marks as a result of a payments surplus, the initial impact is to expand the German monetary base. In the past, this expansion has usually been restricted in the short run; the committee of the Bundesbank has taken strong domestic measures to reduce the monetary base in an offsetting fashion. Open-market sales of government securities, reduced discounting, and increases in reserve requirements have all been used from time to time to sterilize international payments flows. Insofar as the committee had temporary success in reducing the German monetary base and raising short-term rates of interest, further large capital inflows have often swamped the sterilization effort. Indeed, Mathieson (1971) calculates that virtually the whole of the secular increase of the German monetary base in the 1950s and 1960s can be accounted for by official acquisitions of foreign exchange, which were then held as reserves or paid out as official German capital transfers abroad.

In a sense, traditional German monetary policy has been the opposite of that advocated here for a tripartite agreement. The Bundesbank has relied on the foreign-exchange mechanism rather than domestic credit expansion to supply *secular* growth in its national monetary base, while sterilization has been attempted to offset short-run changes in Germany's balance-of-payments position. This reversal of what might be considered optimal policy was exacerbated by Germany's commitment to a fixed exchange rate after the American inflation began in 1965. Before 1965, the German policy might be explained by her perceived need to build up

foreign-exchange reserves from the end of World War II, together with a certain awkwardness in conducting expansionary open-market operations in the absence of outstanding liquid government debt.

A change in German policy toward secular growth in domestic credit expansion by the Bundesbank would be feasible if Germany's two major trading partners restrained their own domestic monetary expansion to an agreed-on norm. Germany's dollar reserves are now so huge (Table 2) that further acquisition into the indefinite future hardly seems necessary. Similarly, the German monetary authorities might welcome a chance to stop their month-to-month sterilization activities if they could be convinced that balance-of-payments deficits and surpluses tended to cancel out and that their situation was not one of indefinitely cumulating surpluses.

From 1967 to mid-1973, the Japanese situation was much like the German, in that large foreign payments surpluses and rapid reserve acquisition can explain most of the expansion in the national monetary base. This was the incidental result of Japanese attempts to sterilize payments surpluses in order to avoid importing inflation.

Surprisingly enough, however, Japanese policy prior to 1967 was rather more like the idealized system envisaged in this essay to be part of a tripartite agreement. When its foreign payments were in surplus, the Bank of Japan allowed monetary policy to become easy, then used foreign deficits to contract the monetary base below its trend rate of growth. The discount rate was also raised in deficit periods in order to complement the tight money policy. The Japanese monetary authorities did not try to sterilize the considerable influence of international payments flows.

The period from 1950 to 1966 also saw extraordinary growth in real gross national product and the real money supply for Japan, yet exchange reserves showed no significant secular expansion (Table 4). Their value remained remarkably small at about \$2 billion. In other words, secular expansion in the national monetary base was accomplished through domestic techniques at a pace consistent with stability in the prices of tradable goods (Table 3) as per the guidelines suggested above for a tripartite agreement. The Japanese might welcome a chance to return to the monetary policies followed before 1967. No significant philosophical or institutional change would seem necessary.

We now turn to the United States, whose monetary conduct has been the most insular of any major trading nation—often for good historical and economic reasons. Suppose that Germany and Japan behave in the idealized fashion described above as they build up or draw down their direct dollar claims on the United States. What American quid pro quo seems appropriate?

TABLE 4
INTERNATIONAL RESERVES OF
GERMANY AND JAPAN^a
(billions of U.S. dollars)

Year	Germany	Japan
1973	\$33.15	\$12.25
1972	23.79	18.36
1971	18.39	15.36
1970	13.61	4.84
1969	7.13	3.65
1967	8.15	2.03
1965	7.43	2.15
1963	7.65	2.06
1961	7.16	1.67
1959	4.79	1.45
1957	5.19	0.83
1955	3.02	1.08
1953	1.77	0.89

^a Includes mainly gold and dollars with some SDRs in recent years.

SOURCE: International Monetary Fund, *International Financial Statistics*, various issues.

One would expect net deficits (surpluses) with Germany and Japan to produce a balanced contraction (expansion) in the American monetary base. Yet such a balanced response would be quite contrary to past American monetary practice, which has amounted to full sterilization of international payments flows. The key issue is the management of dollar securities (Treasury bills and U.S. government bonds) and American bank deposits held as reserves by the German and Japanese governments.

Let us reconstruct a typical reserve transaction arising out of a German balance-of-payments surplus, as managed in the past by both the Bundesbank and the Federal Reserve Bank. The Bundesbank intervenes to buy dollars—say, deposits at commercial banks in New York—and sells high-powered marks to the German banking system. Although the German dollar holdings are officially counted as part of the American money supply (M_1), there is a reduction in low-powered money held by the American public. But commercial-bank reserves (high-powered money) remain unchanged. If the commercial-bank deposits are then spent by the Bundesbank to acquire U.S. government securities on the open market, the American monetary base is still unaffected; even low-powered money in the

hands of the American public is restored. Complete sterilization of the American balance-of-payments deficit has occurred.

A more common procedure for reserve management, which has ultimately the same result, begins when the Bundesbank transfers its newly acquired deposits at American commercial banks to a special account with the Federal Reserve Bank of New York. This step by itself does indeed contract the American monetary base by the full amount of the transfer. But the New York Fed then acts as an agent of the Bundesbank, going into the open market to buy Treasury bills for the German account. High-powered money is thus pumped back into the American monetary system.

Either way, the American monetary base does not contract as a result of a deficit in the American balance of payments. Full sterilization has been practiced, if only subliminally. Moreover, as mentioned earlier, American short-term rates of interest fall because of the German official purchase of U.S. Treasury bills. Further capital outflows from the United States are the likely result, swelling the German payments surplus.

How then could automatic sterilization be avoided in the future with the *presumption* of some short-term monetary contraction in the United States? Very simply, all official German (and Japanese) deposits in American commercial banks would be transferred to the special account with the Federal Reserve Bank of New York. If held there, a satisfactory rate of interest would be paid. Equivalently, the Federal Reserve could issue Treasury bills from its own portfolio in exchange for the special deposits. The aim is to avoid purchases of U.S. government securities in the open market, and thus to avoid replenishing the American monetary base.

Another conceivable technique for avoiding sterilization is to issue new Treasury bills (possibly nonmarketable) directly to the German government. Indeed, new nonmarketable issues of Treasury bills have been issued in large quantities to foreign governments in the past year or two (Adams, 1973). But this method could be treacherous if the U.S. Treasury treated these sales as part of its cash flow, increasing current government expenditures or reducing the volume of marketable Treasury bills outstanding. Either action would replenish the monetary base by the back door.

What might we conclude about procedures for avoiding the sterilization of international payments flows within our triumvirate?

First, a presumptive rule for balanced monetary contraction (expansion) by the United States in response to a net deficit (surplus) with Germany and Japan seems easy enough to set up institutionally. Such a rule need not require contraction on a dollar-for-dollar basis in consequence

of a foreign deficit, but the contraction should be comparable quantitatively to the monetary expansion experienced in Germany or Japan. Unless there were specific and pressing reasons for any one country to take discretionary action to offset the influence of intervention in the foreign-exchange markets, general adherence to this presumptive rule of nonsterilization would be an important aspect of the tripartite agreement.

Second, enforced short-run adjustment in each participating country's monetary base, arising from interventions to maintain exchange parities, would make the parities themselves highly credible. Short-term rates of interest would no longer move perversely. Destabilizing foreign-exchange speculation by multinational corporations, other foreign governments, or private individuals on the relative values of the yen, mark, and dollar would abate. The liquidity value of (demand for) all three currencies would improve once their relative values were fixed and additional assurance given to the market that the monetary base for the triumvirate as a whole would be stable in the short as well as the long run.

Ancillary Arrangements and the Treatment of Nonparticipating Countries

I have outlined the main elements of a strategy for the world's three principal trading countries to strengthen the dollar system. It would be misplaced concreteness to detail all ancillary aspects of the proposed tripartite agreement. Yet important issues remain. Swap agreements or forward-exchange transactions undertaken by the three central banks to influence private capital flows must be suitably delimited. More generally, if symmetrical adjustment occurs in the monetary base of deficit and surplus countries within the triumvirate, private portfolio capital should be free to flow to the deficit country whose monetary base is contracting. The internal adjustment burden is substantially eased, and less official intervention is necessary to preserve a fixed exchange rate.

In addition, the triumvirate might strengthen existing arrangements against monetary pyramiding, as when official foreign-exchange reserves are deposited in Eurobanks and relending then expands the international monetary base even further. Instead, Germany and Japan would hold their dollar reserves only as direct claims on the United States and would deliberately avoid feeding the growth of unregulated financial intermediaries. However, the whole question of controlling offshore Eurodollar banks is not being addressed here.

In their treatment of the rest of the world, the triumvirate would take great care to maintain the "most favored nation" principle of free commodity trade and multilateral convertibility for foreign-exchange transac-

tions. As with Britain under the gold standard and the United States after World War II, the three would strive for multilateralism as a matter of principle.

Similarly, the three would ensure that the rest of the world had free access to capital and be concerned to ensure that capital flowed abroad countercyclically to the current-account balance of the triumvirate with the rest of the world. These flows would not display the full automaticity of similar capital movements *within* the triumvirate, responding to monetary management of the kind discussed above. Yet, to satisfy Kindleberger's leadership criterion, it is important that the triumvirate be willing to lend freely internationally.

Many other trading nations outside the agreement would continue to hold official reserves in the form of dollar securities that were direct claims on the United States. As these were built up or drawn down, the Federal Reserve System would have no obligation, like its hypothetical mutual obligation to Germany and Japan, to adjust the American monetary base accordingly. But international liquidity would continue to be provided in the form of dollar assets to all who wanted it.

Concluding Note

What has been examined in this essay (despite the rather grandiose title) is the feasibility of making significant alterations in the dollar standard that do *not* involve drastic reform of the whole international monetary system. By suitably restricting the freedom of monetary action of the world's three major trading nations vis-à-vis each other, the world monetary system can be better stabilized. While the point is not argued explicitly above, these restrictions might actually improve the domestic monetary policies of each of the three participating countries, so that net benefits accrue to them as well as to the rest of the world. National central banks may better resist political demands for domestic credit expansion if each national authority is locked into limitations agreed on internationally.

The alternative is to allow the international dollar standard to continue limping, more or less under the management of the United States, with some ad hoc support (and possibly opposition) from other industrial nations in crisis situations. Through their own efforts, the American authorities can perhaps restore the U.S. economy to an even keel, and bring the rest of the world with them. Indeed, a determined effort to restrain monetary expansion in the United States is highly desirable, whether or not a tripartite agreement exists. However, collaboration in monetary management with Germany and Japan could make the task of restoring an orderly international monetary system much easier.

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