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Japan and the International Monetary Regime

The international monetary regime, the set of rules that governs the monetary mechanism of international trade and investment, is one of the foundations of the world economy. The development of every national economy is conditioned by the way the international monetary regime is arranged, and every major economy has contributed, though with different degrees of importance, to its evolution. The Japanese economy is no exception. This paper reviews the postwar development of the international monetary regime and Japan's growing involvement, evaluates the efficacy and viability of the current flexible exchange-rate regimes, and speculates on the possibility of the future reform of the international monetary regime as viewed across the Pacific.

The United States played the dominant role in the postwar evolution of the international monetary regime. In the Bretton Woods system, particularly in its practice, the United States was such an important leader that, before Nixon's New Economic Policy in 1971, the Bretton Woods system was called the "dollar standard." However weak it was, the link between the value of currencies and gold remained a link between the dollar and gold. The dollar was the major, if not the only, vehicle currency. This U.S. leadership role declined after the breakdown in 1971-73 of the Bretton Woods regime, that is, the old IMF regime. European countries have come to play an increasingly important role, and in the past decade Japan has played a relatively significant role. The United States, however, continues to be the leader in the sense that changes in rules cannot occur without its cooperation. The best example of this is the intervention after September 1985 of the Group of Five (the United States, Great Britain, West Germany, France, and Japan), which was organized under the leadership of the United States and reflected a major shift from the earlier policy of nonintervention in currency markets.

The United States has also been an important actor over the past several years in a different respect. The dollar was overvalued for several years (from 1980 to at least mid-1986), in terms of trade flows and of the structure of the U.S. economy, largely because of the domestic macroeconomic policy of a highly expansionary fiscal policy combined with a restrictive monetary policy, which led to high real and nominal interest rates. Excessive spending in relation to production (typically stated in macro-terms as more investment than saving but more precisely a reflection of the immense and rising federal budget deficits) created high interest rates and a huge and growing current-account deficit that had to be financed by huge capital inflows. This caused serious concern in many parts of the world. The United States is still special in the world economy because of its leadership role, because of its huge size, and because, unlike every other country, foreigners were and are still willing to hold large amounts of their wealth in dollar-denominated financial claims, even though they assume substantial foreign exchange risks in the process.

For its part, Japan was a negligible player and passive acceptor of the international monetary system in the 1950s and 1960s. Then, in the early 1970s, Japan emerged as a country with some destabilizing impact on the system and even as a catalyst for change. In the 1980s, Japan has become one of the major actors in the system, given its immense financial involvement in the rest of the world and burgeoning current-account surpluses and concomitant net capital outflows. Joint intervention to affect the value of the dollar (particularly vis-à-vis the yen) now requires the support of the Japanese monetary authorities as well as the U.S. authorities.

In 1949, during the Occupation, Japan fixed its exchange rate at \$1 to ¥360. Under the old IMF adjustable-peg system (the Bretton Woods regime), Japan adhered strictly to this exchange rate until 1971, when President Nixon announced the New Economic Policy that cut the already weakening link between the dollar and gold completely. In addition, for the Japanese economy, which relies almost completely on foreign energy sources, the formation of OPEC's petroleum cartel was a heavy blow. The Japanese economy coped with these environmental changes by energy saving programs and by contractionary macroeconomic policies, although at the cost of a substantial slowdown in output growth since the mid-1970s in comparison with the superfast growth of the 1950s and 1960s. These relatively successful adjustment processes were accomplished under the flexible exchange-rate regime. Now Japan, like many other nations, seeks a better international monetary regime, though that will be difficult to devise.

The general attitude of the Japanese government as well as the Japa-

nese public toward the international monetary regime has been rather passive. After the wartime destruction, the Japanese economy occupied only a tiny place in the world. It was generally conceived of as an economy closely associated with, and often subordinate to, the U.S. economy. The favorite phrase was When the United States sneezes, Japan catches pneumonia. Japan was completely under U.S. hegemony in the economic as well as the political sense.

During the period of rapid economic growth in the 1960s, the relative importance of the Japanese economy increased substantially, although the Japanese public still perceived of it as lagging behind.¹ However, Japan's sudden and large balance of payments current-account surplus and the reluctance of the Japanese government to revalue the yen were among the main factors that triggered Nixon's drastic adoption of the New Economic Policy. Because of its increased role in the world economy, Japan functioned as a pivotal element in this critical change in the international monetary regime.

In this sense, not only has Japanese economic development been supported by the international superstructure or overhead capital (namely, the international monetary regime), but the growing presence of Japan has influenced the evolution of the international monetary regime. This observation is reinforced by the effect of the Group of Five's interventions in September 1985, whose impact on exchange rates, particularly that of the yen, was much greater than anticipated. Subsequently, the Japanese began to recognize the extent of the repercussions of their own domestic policymaking on the world economy.

The methodology utilized in this paper is an extension of the political-economy approach of Hamada.² First, we specify the cost-benefit structure that an international monetary regime brings to participating countries and explore the questions What kind of international monetary regime do participating countries desire, and what kind of international monetary regime is likely to be realized, given the potential cost-benefit structures implied by various regimes? An international monetary regime, and more generally any international regime, can be regarded as a public good. The main goal of this approach is to study how to create the mechanism for providing an international monetary regime with proper incentives for participating countries.

In the first section, we briefly describe the development of the post-war international monetary regime. We discuss why the adjustable-peg system collapsed, and how this collapse affected the development of the Japanese economy. Then, we describe how the flexible exchange-rate regime among major industrial countries has worked in the past decade and how Japanese monetary authorities conducted their intervention (or occasionally nonintervention) policy in the exchange market.

In the second section, we provide a general assessment of the ongoing

flexible exchange-rate system. Much can be said in favor of the partly managed flexible exchange-rate system. Unlike the adjustable-peg system, the system has not led to many crises in foreign exchange markets. Pressures in foreign exchange markets have not resulted in increasing controls on capital flows or on trade flows, as was often the case under the old IMF regime. Accordingly, the system has supported a relatively open international trade system as well as an open international financial system. Thus, the current system may be judged as satisfying the minimum requirement for an appropriate international monetary regime. However, movements in real and nominal exchange rates have been highly volatile, and some economists point out the possibility of misalignment from reasonably defined equilibrium exchange rates. They suspect that the degree of observed volatility may be greater than that required to accommodate smooth resource allocations through trade and capital movements. Moreover, misalignment and the huge trade deficit have resulted in substantially increased protectionist pressures in the United States. Determining the actual situation—whether and how much the market exchange rates have been misaligned—is, however, difficult.

In the third section, we discuss, as a digression, some of the short- to intermediate-run policy measures the Japanese government could take. We examine the pros and cons of various devices to cope with the currently pressing issue of Japan's accumulating current-account surplus, including import liberalization, exchange rate policy, expansive fiscal policy, and more focused incentives to increase investment.

In the final section, we explore the possibility of future reforms in the international monetary regime. There would be little merit in returning to the adjustable-peg system or to a stricter fixed exchange-rate system or to a gold standard. However, there may be some room to realize alternative ideas for reforms: for example, (1) to stabilize exchange rates and price levels by coordinating monetary policies among the major nations; (2) to oblige monetary authorities to pursue interventionist policies to contain exchange rates within a prescribed zone; or (3) to let monetary authorities compete in making profits by (presumably) stabilizing interventions. Then, we apply a political-economic analysis (the calculus of participation) to speculate what kinds of regimes or reforms, if any, are more likely to be adopted, and we consider the role of Japan in this political process.

Historical Development

The Bretton Woods adjustable-peg system prevailed in the postwar international economy until 1971. In May 1971, the German and Dutch monetary authorities abandoned fixed parity for the mark and guilder

and moved to floating exchange rates. The Japanese monetary authorities strongly resisted revaluating the yen, despite Japan's accumulating large surplus in its balance of payments. In August, President Nixon announced his New Economic Policy, which cut the already weakening link between the dollar and gold and placed a 10 per cent surcharge on imports to the United States, notably imports of manufactured goods. This policy was widely seen as aimed particularly, though by no means exclusively, at Japan.

The basic principles of the Bretton Woods regime as originally conceived were as follows.

1. Exchange rates were normally fixed but could be changed up to 10 per cent. A country could adjust its exchange rate by more than 10 per cent if its balance of payments was judged as being in a "fundamental disequilibrium," which was not formally defined.

2. The dollar was linked to gold at a fixed parity. The confidence in the dollar was supported by this link. The United States supplied the liquidity for international transactions and for the growth of foreign exchange reserves by providing dollars by increasing its short-term liabilities to the rest of the world. In this sense, this was a gold exchange-standard system, based on the dollar rather than on the pound as had been the case before World War I and in the 1920s.

3. The adjustment of the balance of payments was primarily conducted by macroeconomic policies of the nonreserve countries (namely, all countries other than the United States) and supplemented by the occasional realignment of exchange rates.

Early on, Robert Triffin pointed to the liquidity dilemma as the fundamental instability in the Bretton Woods regime.³ To satisfy the increasing demand for international reserves, the United States would eventually undermine foreign confidence in the dollar because its gold-liability ratio would decline. The link between the dollar and gold was broken *de facto* during the 1960s. The dollar-based gold exchange system turned into a dollar-standard system where the dollar was valued not because it was supported by gold but because it functioned as a medium of international payments.

An implicit principle of the dollar-standard system was that the United States would maintain domestic price stability, which would result in international price stability. In other words, the implicit *quid pro quo* for an increase in the U.S. dollars held by foreigners was a U.S. commitment to price stability. Robert Mundell advocated the following assignment of policies under the dollar standard: the United States adjusts its money supply so as to stabilize the international price level, and Europe and Japan (the rest of the world) adjust their money supplies to maintain balance-of-payments equilibrium.⁴ This application of his celebrated

principle of policy instruments works well so long as these rules are observed.

In the context of this policy-assignment argument, the degree of price stability in the United States was thus regarded as desirable by, or at least as acceptable to, the rest of the world. Those countries that, for whatever reasons, adopted policies of higher rates of inflation were able to devalue their currency from time to time under the adjustable-peg system (as, for example, France and Italy did). The problem, however, was West Germany in the 1950s and 1960s; it wanted a lower rate of domestic price increases, and its macroeconomic policies combined with good growth performance to generate substantial current-account surpluses and increases in foreign exchange reserves. There was strong pressure on Germany to expand its domestic macroeconomic policy, but the Germans resisted. This "German" problem spread to other countries in the late 1960s as the United States financed the Vietnam war through inflationary means and as Japan's current-account surpluses grew substantially. Moreover, de Gaulle and France were unwilling to finance the United States by holding dollars since France, too, had started to run current-account surpluses and came to insist increasingly that it be allowed to convert dollars into gold. The United States exercised moral suasion on other countries, particularly on Japan and to some degree on Germany, but this brought to the fore the problem that had worried Triffin earlier. To some extent, it reflected an unwillingness to go along with U.S. macroeconomic policy, not only for reasons of price stability but for political reasons over the United States' use of its assets to engage in the Vietnam war.

Thus, the question was whether there were sufficient incentives for national authorities to pursue the set of policies implicitly assigned to them in the Bretton Woods system. For Japan (or the rest of the world), incentives existed to adopt contractionary policies when the balance of payments was in deficit, and accordingly the system was binding. However, Japan, or more empirically relevant Germany, did not always have an incentive to adopt expansionary policies when the balance of payments was in surplus. Nor did the United States necessarily have the incentive to play the role of a benevolent leader by adjusting its macroeconomic policies to keep the world price level constant.

In fact, two of the major reasons why the Bretton Woods regime collapsed are that the rest of the world did not play the game symmetrically with respect to booms and recessions and that the United States, particularly after its involvement in Vietnam, came to be concerned not so much with world price stability as with its own national policy objectives.⁵

Japanese policymakers were strongly committed to the fixed exchange parity before Nixon's New Economic Policy. Japanese government offi-

cials were proud that since 1949 Japan had not changed the exchange parity to the dollar. Japan was, and liked to think of itself as, an "honor student" in the (old) IMF regime. Japanese policymakers apparently never conceived of using changes in the exchange rate as an instrument of balance-of-payments policy until such action was forced on them after 1971. After all, although some of Japan's balance-of-payments deficits in the 1950s and 1960s resulted from an overheated economy, there were occasions when the deficit was a consequence of changes in the external environment (world recession, the Suez crisis). It might have been reasonable at those periods for Japan to devalue rather than slow down the growth rate through restrictive policies. One reason for this was a sense of prestige: a successful, civilized country did not engage in exchange rate devaluations (though France had, and indeed England had in 1949). Another reason might have been an acute realization that Japan was beginning to expand in world markets, that it had had difficulty obtaining access to foreign markets (many countries continued to restrict Japanese imports under the GATT Article 35 exemption), and that any Japanese devaluations would have been taken as a beggar-my-neighbor policy and were not politically desirable because of the possibility of retaliation.

At the beginning of the 1970s, the adherence of the Japanese government to the fixed parity of \$1 to ¥360 was too extreme. The mere discussion of flexible exchange rates was virtually a taboo in the mass media. Even Japanese economists, including one of us, went no further than a lukewarm proposal of a crawling peg for the yen. Whereas most countries that had been under the fixed exchange rates immediately closed their foreign exchange markets on President Nixon's announcement and shifted to floating exchange rates a week or so later, Japan alone kept its foreign exchange market open. As a result, the Bank of Japan bought about \$4 billion at the overpriced exchange rate of ¥360, incurring a huge loss for Japanese taxpayers. Finally, the monetary authorities gave in, and the yen was allowed to float and appreciate. Some policymakers seemed to believe that trying to support the old dollar value would be appreciated as conduct faithful to the principle of the (old) IMF regime.⁶

Careful consideration is necessary to clarify the welfare effect of this purchase of dollars during fall 1971. At that time, Japan imposed severe exchange controls that prohibited foreigners from purchasing yen assets with dollars; only Japanese corporations (mainly trading companies and the shipbuilding companies, which had huge dollar claims outstanding through deferred sales of ships) were allowed to do so. Under such circumstances, the exchange rate policy was a measure by which the Japanese government deliberately shifted the costs of exchange rate appreciation from private business engaged in international trade to the government. One might argue that this was not wrong since those com-

panies had been operating under a set of rules of the game they believed to be inviolate that were suddenly changed. Moreover, a number of trading companies might have otherwise gone bankrupt, with serious spill-over effects on the domestic economy as well as on Japan's foreign trade capabilities. In this sense at least, the policy of shifting the burden from the private sector to the government might well have been stabilizing. (Note that this occurred only at a time when a major change in the rules of the game was completely unanticipated.) Needless to say, however, the taxpayer eventually had to bear the burden shifted to the government.

There was a short interlude of new fixed exchange rates (with a new parity of \$1 to ¥308) with a wider band of permissible fluctuations. Known as the Smithsonian system, this regime lasted from December 1971 to February 1973. The momentum toward flexible rates had already passed the point of no return, however. The resurgence of financial crises in Europe and the increased demand for the yen made it necessary for Japanese monetary authorities to join in adopting flexible exchange rates in February 1973. Japan adopted the flexible exchange-rate system over a weekend, at a time when all the other major countries were taking the same action. This action demonstrated that monetary authorities could act swiftly when forced to by external events. At that time, it would have been senseless for Japan to keep the yen pegged to the dollar or to any other currency.

As Mundell argued, some monetary coordination was indispensable to the proper functioning of the fixed exchange-rate system. The Bretton Woods regime failed because the system did not have sufficient incentive mechanisms.

Because of the cost-benefit structure of the game of choosing an international regime, crisis often becomes the catalyst for financial reforms.⁷ In the game of choosing or agreeing on a rule, the present system or status quo continues as long as there is no agreement. Institutional reforms are realized when the current status quo becomes intolerable for the participating countries. Richard Cooper has argued that rule changes frequently come about *de facto* as a result of gradually changing economic circumstances.⁸ Only later are those changes in the implicit rules specified and codified. Many international monetary crises between 1971 and 1983 brought on the change from the dollar-standard system to flexible exchange rates.

The adoption of flexible exchange rates was not the result of a coordinated, planned, and deliberate decision of the participating countries. Rather, it was a necessary escape from an impasse and a measure against an emergency. Only in 1976 in Jamaica did the IMF interim committee agree on the basic rules of the international monetary system and allow adoption of flexible exchange rates. The flexible exchange-rate sys-

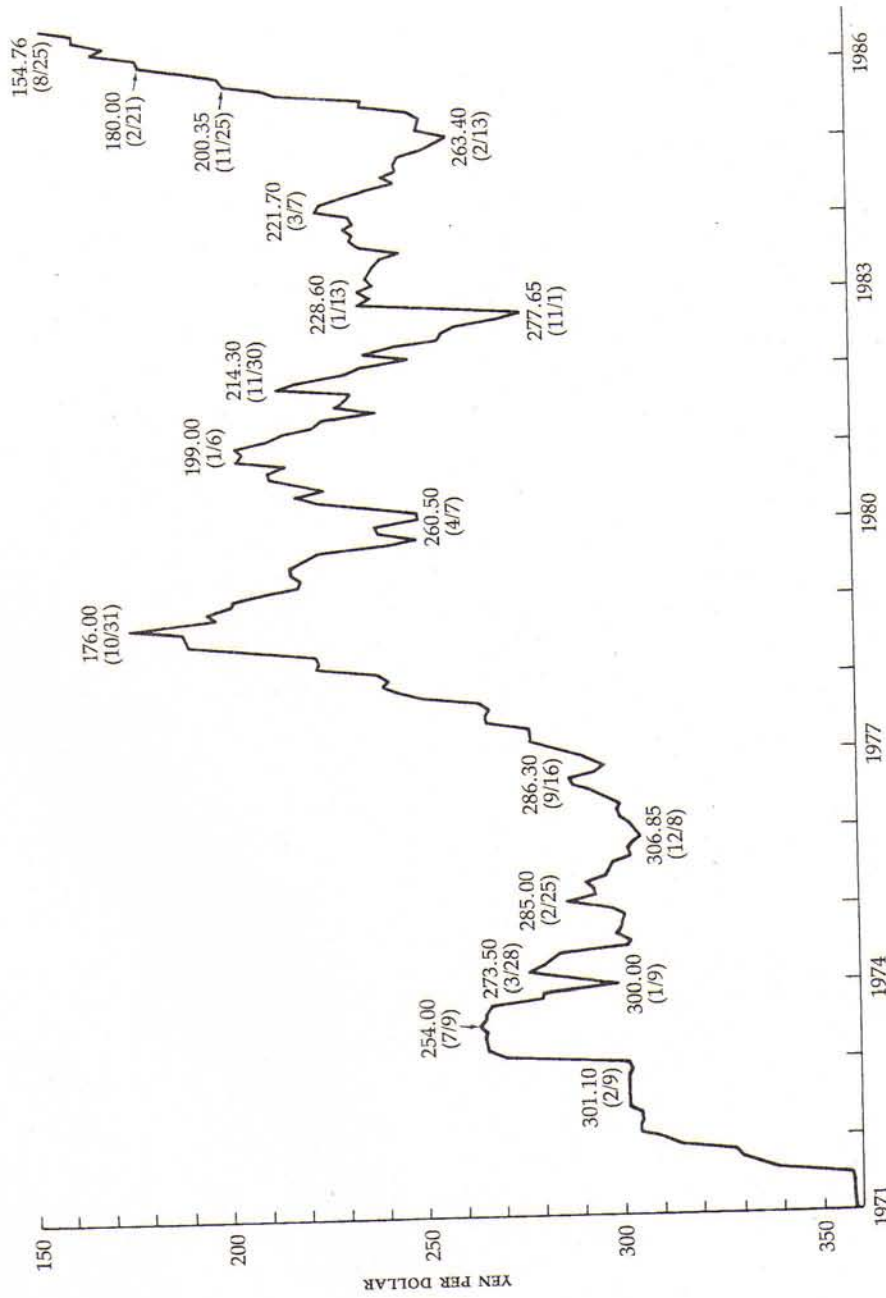


Fig. 1. Yen-dollar exchange rate (spot-closing rate in the Tokyo market), 1971 - 1986.

tem itself does not, at least *prima facie*, call for any cooperation between governments. The direct link among price levels in the participating countries that had existed under the adjustable-peg system was ended by the adoption of flexible exchange rates. Except for more subtle linkages,⁹ the primary economic linkages resulting from synchronized price levels were virtually severed. Each national monetary authority recovered substantial control over monetary policy. The rules of the game do not bind participating countries very tightly. As a first approximation, the flexible exchange-rate system can be termed a "nonsystem."¹⁰

Needless to say, the system adopted by the major industrial countries after February 1973 is not a freely floating exchange-rate system. Of the different kinds of floating systems, one is that of the clean float (completely flexible exchange rates) in which supply and demand determine the exchange rate without intervention by the monetary authorities of any country and without exchange rate controls. Another is very short-term intervention when markets are disorderly; typically the stabilizing intervention lasts only for a matter of hours or at most a few days. In the managed float system, central banks systematically intervene in the market to affect the exchange rate; intervention either results in an undervalued currency (beggar-my-neighbor) or maintains an overvalued currency. The monetary authorities of most industrial countries have intervened to smooth out short-term fluctuations and occasionally to influence the direction of exchange rates. If various national monetary authorities simultaneously engage in foreign exchange interventions, then the monetary interdependence observed under fixed exchange rates reappears to some degree and creates the possibility of strategic interaction.¹¹

As it evolved in the 1970s, the flexible exchange-rate system was at first a floating arrangement among the major nations: the United States, Great Britain, Japan, Canada, and the European Community. The European Community tried to establish a fixed exchange-rate mechanism among their currencies (or at least an adjustable-peg system) in the form of the European Monetary System, such that their rates floated against non-EC currencies but not against each other's (except within the band in which the snake danced). Finally, most of the developing countries chose to peg their exchange rate to that of a major trading partner, to the IMF-based special drawing rights (SDR) unit, or to a trade-weighted basket. Some of the countries pursued flexible or crawling-peg rates (for example, Brazil) because of internal circumstances, particularly when internal inflation rates were high.

Since 1971, the yen-dollar exchange rate has fluctuated widely, and the level of international reserves held by the Japanese monetary authorities has tended upward (see figs. 1 and 2). Has intervention by the

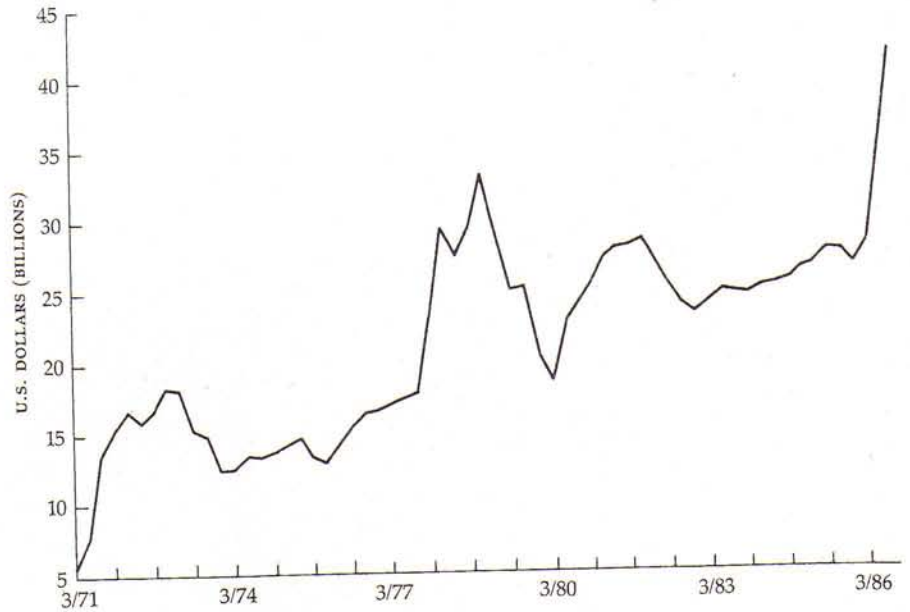


Fig. 2. Japan's international reserves, 1971-1986.

Japanese monetary authorities helped stabilize the value of the yen? Since interest payments accrue to international reserves, the reserves should increase slightly even without intervention. With this minor caveat, the increase (or decrease) in reserves implies net buying (or selling) interventions. Thus, Figure 2 adequately reflects the general trends and fluctuations of interventions.

For government interventions to be stabilizing, they should normally be profitable; that is, a government should purchase its own currency (sell foreign currency) when its own currency is appreciating and should sell its currency when it is depreciating. The massive purchase of dollars during the disorderly period of 1971 was definitely destabilizing.¹² Some sales during 1973 may have been destabilizing as well. Since that time, however, the Japanese monetary authorities have often engaged in stabilization by selling the dollar when it reached a peak and buying when it reached a trough. From 1974 to 1976, the movement of the yen exchange rate was moderate, and the intensity of interventions was weak. From the latter half of 1977 to late 1978, however, the monetary authorities bought dollars (sold yen), even though the yen was appreciating. This "leaning against the wind" caused controversy with the United States since Japan's global and bilateral current-account surplus increased

sharply and unexpectedly.¹³ However, the appreciation eventually became excessive. When the dollar hit a record low in 1978, Japan's international reserves reached a historical high. After an announcement of joint action by the Japanese and U.S. monetary authorities, the exchange rate changed direction. This movement toward lower values for the yen was reinforced by the second oil crisis. The pattern of buying the dollar at a trough and selling it at a peak generally continued until 1983.

It is not easy to determine whether interventions are stabilizing or not. Much depends on whether currencies come to be misaligned because of changes in fundamental factors or whether the exchange rate movements represent overshooting beyond an equilibrium rate. It is not always clear whether the monetary authorities should be reinforcing the direction of change ("leaning with the wind") or resisting it ("leaning against the wind").

Based on the familiar argument by Milton Friedman, Dean Taylor calculated the profits and losses accruing to interventions by monetary authorities and contended that monetary authorities were destabilizing the foreign exchange market. His dictum for private agents was to bet against the central bank in order to make profits and indirectly contribute to economic welfare.¹⁴ Helmut Mayer and Hiroo Taguchi questioned the appropriateness of using profitability as the main criterion. They argued that the criteria for stabilization should be whether interventions help exchange rates approach the moving average trend of exchange rates and whether interventions, viewed *ex post*, succeed in leaning against the wind. They concluded that most of the interventions by Japan, Germany, and the United Kingdom had a stabilizing impact.¹⁵

To understand the movements among multiple exchange rates, where there are multiple sources of real and nominal disturbances and where expectations of market participants change endogenously in response to the rules of interventions—let alone to be able to identify the contribution of government interventions in the exchange market—one needs to develop analytical models further. It also should be emphasized that some important turning points in the yen-dollar exchange rate were induced by the announcement of joint actions by central bankers. By October 1978, for example, the value of the dollar had fallen to ¥176, less than half the ¥360 rate that had prevailed for more than 20 years before the collapse of the Bretton Woods regime. It seemed clear that the dollar was undervalued and the yen was overvalued. On November 1, 1978, the United States announced a policy package to defend the value of the dollar, based on separate consultations with West Germany, Switzerland, and Japan. Simultaneously with the U.S. announcement, the governor of the Bank of Japan held a press conference, at the unusual hour of 11:00 P.M., and announced an increase in the magnitude of a swap

agreement between the United States and Japan as well as his intention to engage in a dollar-buying operation. These mutual announcements had a dramatic and immediate effect on the yen exchange rate.

This joint action seems to have been successful because it was a joint decision involving action by both Japan and the United States and because private participants in the foreign exchange market perceived that the yen was indeed overvalued. The market was very susceptible to a signal from the monetary authorities reinforcing its concern that perhaps the yen had appreciated too much. Certainly, the unusual degree of appreciation of the real exchange rate was a factor that made market participants suspicious of the existing market rates.

In some instances, however, coordinated interventions have not had much impact. In early August 1983, for example, joint intervention did not halt the strengthening of the dollar. The reasons for this failure require further research. At the time, the movement of the real exchange rate was not marked. In fact, the real exchange rate as computed by various indexes showed a more mixed picture than it had in 1978 when every dollar index had moved downward.

During 1983 and 1984, exchange rate movements became less volatile, and there is little evidence of substantial interventions. Until September 1985, the United States enunciated a policy of nonintervention. After 1983, the Japanese monetary authorities appeared to have shifted from a managed float to almost a clean float.

During 1982-86, however, Japan's overall current-account surplus, the United States' overall current-account deficit, and Japan's bilateral current-account surplus with the United States began to grow to huge levels (see Table 1). By 1985, the United States was no longer willing to accept its intolerably large and rapidly growing trade and current-account deficits, and not surprisingly it associated much of its trade problems with Japan's burgeoning success. The macroeconomic sources of these deficits and surpluses can be classified into (1) differences in respective phases in the business cycle; (2) changes in relative prices of exports and imports as reflected in an increasingly overvalued dollar and undervalued yen; and (3) changes in production and spending behavior and policies (private and public spending, savings, and investment) in the two countries.

In our view, the fundamental cause was the basic structural and policy situation in each country (the absorption approach); the fluctuations in nominal and real exchange rates were of lesser importance.¹⁶ Indeed, exchange rates can be viewed as largely reflecting underlying structural conditions and respective macroeconomic policies and the expectations of market participants regarding the future course of these factors; even so, an overvalued dollar and undervalued yen surely made the huge

TABLE I
 United States and Japan, Balance-of-Payments Surplus or Deficit
 and Government Budget Deficit, 1970-1986
 (U.S. \$ billions)

	Global current account				U.S. current-account deficit with Japan		Central government budget deficit (per cent of GNP)	
	Japan		U.S.		Current account surplus	Per cent U.S. deficit	Japan	U.S.
	Amount	Per cent GNP	Amount	Per cent GNP				
1970	\$1.97	1.0%	\$2.331	0.2%	\$-0.857	*	-0.5%	-0.3%
1971	5.797	2.5	-1.433	-0.0	-2.750	191.9%	-1.5	-2.2
1972	6.624	2.3	-5.795	-0.5	-4.782	82.5	-1.3	-2.0
1973	-0.136	-0.0	7.140	0.5	-1.631	*	-1.6	-1.2
1974	-4.693	-1.0	1.962	0.1	-1.048	*	-1.6	-0.4
1975	-0.682	-0.1	18.116	1.1	-1.372	*	-3.6	-3.5
1976	3.68	0.6	4.207	0.2	-5.286	*	-4.3	-4.3
1977	10.928	1.7	-14.511	-0.7	-8.149	56.2	-5.2	-2.8
1978	16.534	1.9	-15.427	-0.7	-11.676	75.7	-5.2	-2.7
1979	-8.693	-0.8	-0.991	-0.0	-8.6	867.8	-6.0	-1.6
1980	-10.746	-1.1	1.873	0.1	-9.1	*	-5.9	-2.8
1981	4.770	0.4	6.339	0.2	-14.1	*	-5.0	-2.6
1982	6.850	0.6	-8.051	-0.3	-15.8	196.2	-5.2	-4.1
1983	20.799	1.8	-45.994	-1.4	-18.3	39.9	-4.8	-6.3
1984	35.00	2.7	-107.358	-2.8	-37.7	35.1	-4.3	-5.0
1985	49.169	3.7	-117.7	-2.8	-45.2	41.3	-3.9	-5.4
1986	86.970	4.2	-140.6	-3.3	-55.9	39.8	-3.8 ^a	-4.8 ^b

SOURCES: Various issues of Bank of Japan, *Economic Statistical Annual* and *Balance of Payments Monthly*; *Economic Report of the President*; U.S. Department of Commerce, *Survey of Current Business*.

NOTES: An asterisk in the sixth column indicates opposite relationship; a minus sign indicates current-account deficit. Japan-U.S. bilateral current account based on U.S. data; Japan's surplus is equivalent to the U.S. deficit.

^aMinistry of Finance estimate.

^bOffice of Management and the Budget estimate.

trade imbalances that developed in the 1980s even more extreme. More precisely, Japan's current-account surplus was a consequence of the tendency for private saving to outstrip private investment demand while government budget deficits, so large in the latter half of the 1970s, were being reduced. With low interest rates at home, Japanese were eager to accumulate net wealth abroad. In the United States, the major change in the domestic macroeconomic balance lay in the rapidly increasing and ultimately immense federal budget deficit, far beyond the capacity of domestic savings to finance if it were also to finance domestic private investment. Monetary policy achieved price stability, in part by maintaining relatively high interest rates, especially in real terms; those interest rates attracted foreign capital to finance, indirectly at least, up to one-half the federal budget deficit, with a concomitant inflow of imports of goods and services in excess of exports.

Many economists place greater, and more direct, emphasis on exchange rates, arguing that the huge U.S. trade deficit and Japanese sur-

plus resulted from the overvaluation of the dollar, that is, the misalignment of exchange rates. As shown in Figure 3, the yen's real exchange rate vis-à-vis the dollar tended to depreciate from 1980 until 1985. This tendency was stronger in terms of the wholesale price index than of the consumer price index. Compared with the 1975 level, the real exchange rate in terms of unit labor costs declined sharply. This suggests that Japanese manufactured products gained substantial competitiveness during 1975-85.

Then came the fascinating experiment of the Group of Five. The finance ministers of the five countries announced their intent to intervene in the foreign exchange market (the Plaza Agreement of September 22, 1985). As a result, the value of the dollar dropped by 37 per cent from ¥243 in September 1985 to ¥153 in September 1986.

The effects of the intervention on various currencies were uneven. During the year after the joint intervention, the British pound appreciated only a little against the dollar. The West German mark appreciated substantially. The yen appreciated by some 59 per cent against the dollar

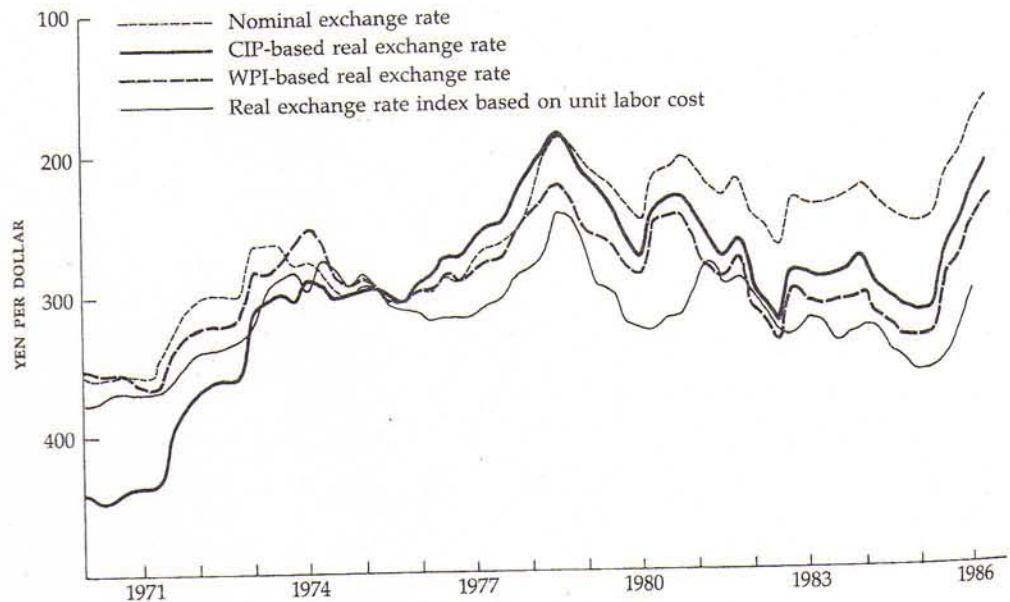


Fig. 3. Japan's real exchange rates, 1970-1986 (yen/\$). CPI, WPI, and the unit labor cost (relative normalized unit labor cost) are expressed on base 1975 = 100. Sources: International Monetary Fund, *International Financial Statistics*; Bank of Japan, *Economic Statistics Annual*.

(viewed from the perspective of the yen). To what extent this revaluation of the yen was caused by the joint intervention remains unclear, and the reasons for the effectiveness of this intervention have yet to be explored. Here, we consider several possible reasons for the apparent success of the coordinated intervention since it is important not only for itself but also for what it tells us about the possibilities of successful intervention in the future.

First, the announcement was made in such a way as to maximize the feeling of surprise in the market. Joint actions were prepared in secrecy and announced on the weekend, when markets were closed. Japanese trading companies and financial institutions had been warned against excessive speculation in the form of accumulating credits in dollars, but whether they took this as a sign of future interventions is not clear. In any case, the announcement came as a surprise and indicated strongly that the Reagan administration had abandoned its policy of benign neglect by refraining from intervening in the market.

The amount of currency used in interventions by the Japanese central bank and other central banks has not been well publicized. Sam Cross, vice-president of the New York Federal Reserve Bank, revealed some fragmentary evidence on the magnitude of currency interventions by several governments.¹⁷ According to him, from September 22 to the end of October 1985, U.S. monetary authorities sold about \$3.2 billion, of which \$1.4 billion was used to purchase yen. Other members of the Group of Five sold about \$5 billion, and the other countries in the Group of Ten (the Group of Five plus Canada, Italy, Sweden, Belgium, and the Netherlands) intervened with about \$2 billion. The currency composition of those interventions has not been reported.

Figures 4 and 5 show the movement of exchange rates and the changes in international reserves held by the Japanese monetary authorities in 1985 and 1986. If we neglect the accrual of interest payments, the changes in international reserves can be regarded as the amount of intervention. During September 1985, Japanese foreign exchange reserves decreased by about \$1 billion. Cross described the sentiment of the Tokyo market after September 22:

During the next few days, there was some skepticism in the market that the lower dollar levels would be maintained, and a number of commercial customers responded to the apparently attractive rates by buying dollars. This phenomenon was most dramatic in Tokyo where, when the market opened on Tuesday, September 24, after a three-day weekend, dollar demand from corporations and investors spurred the largest turnover on record for spot dollar/yen trading. The Bank of Japan responded with massive dollar sales. . . . Following these and other operations in subsequent days by the Japanese and other G-5 central banks, market participants came to believe that the authorities were firmly committed to the joint effort and upward pressure on the dollar abated.¹⁸

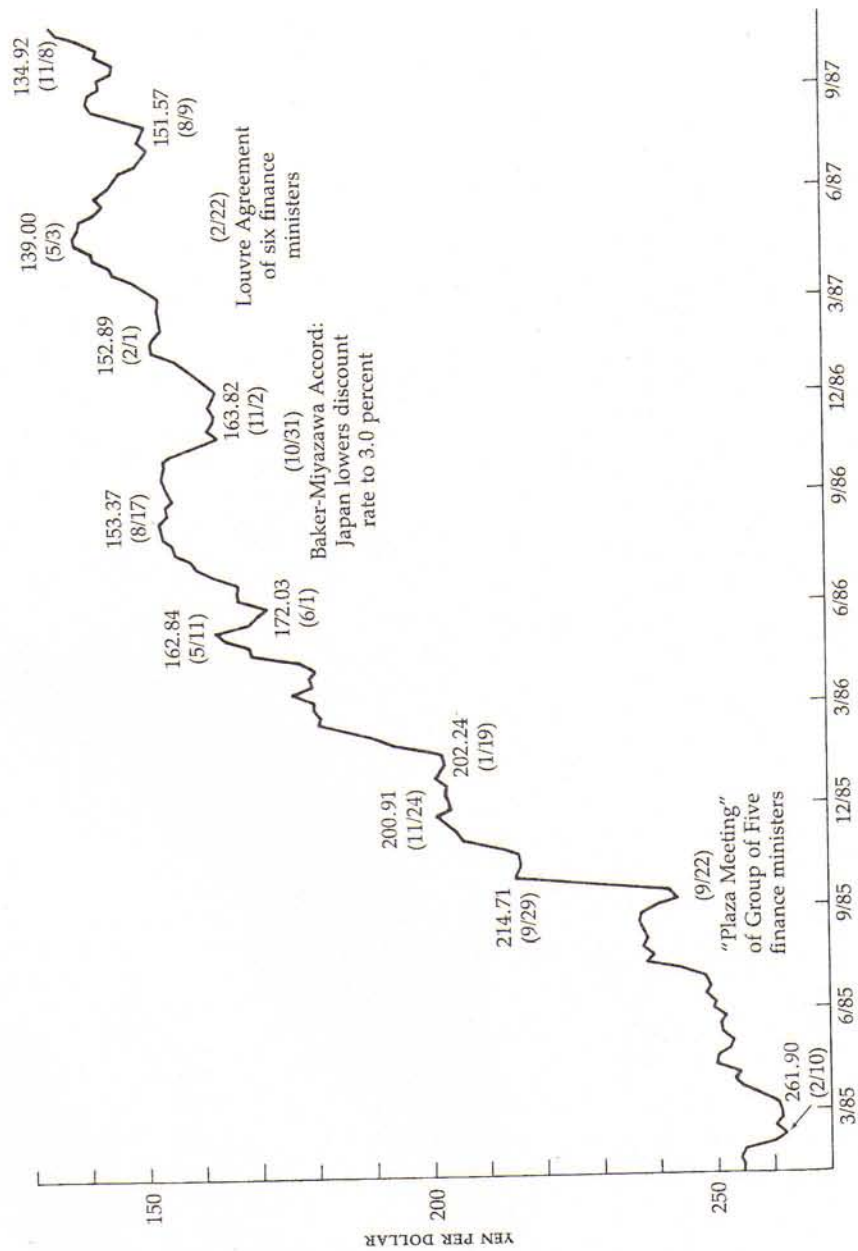


Fig. 4. Yen-dollar exchange rate (spot-closing rate in the Tokyo market), 1985-1986.

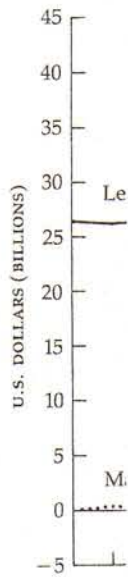
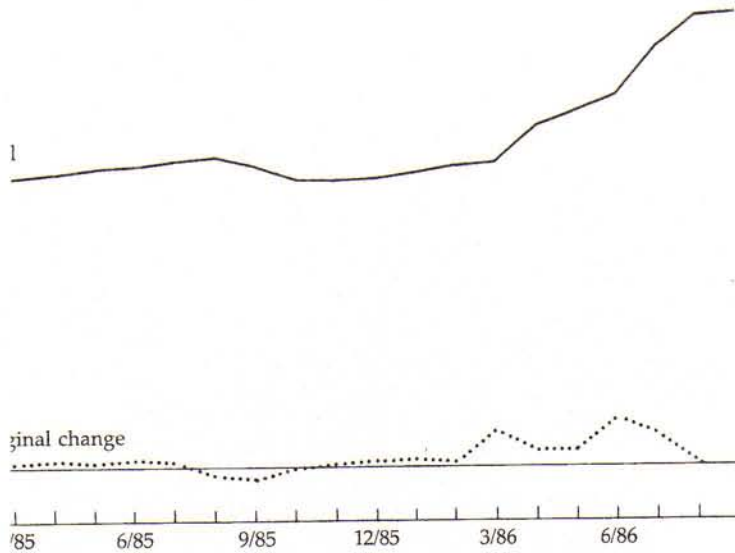


Fig. 5. Jap

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Japan's international reserves (level and marginal change), 1985-1986.

One factor in the success of the intervention was that the Bank of Japan did not adopt a policy of sterilizing the intervention. On the contrary, it maintained its contractionary monetary policy during 1985. On October 16, it let short-term interest rates on bonds jump from 5.6 per cent to 8.5 per cent, causing a panic in the newly established futures market in government bonds.

The strength of the leadership of the governor of the Bank of Japan in November 1985 was impressive. He (and perhaps the finance ministry) clearly signaled their intention to let the yen appreciate and *not* to raise interest rates until the yen had appreciated significantly and until interest rates in the United States had declined sufficiently to narrow the interest rate differential. The several shocks to the Japanese financial market—the initial strong intervention, the October 24 decision to let interest rates on bonds to climb, and other measures taken to reduce uncertainty—clearly had a severe impact on expectations. The uncertainty concerning the price range and the timing of the Bank of Japan's interventions made it difficult for the renewed capital outflow to be expected, given the continuing (real) interest rate differential between Japan and the United States, to occur.

Given the strong impact compared to the relatively small scale of intervention, the effect was quite dramatic. The apparent efficacy of interventions can be explained only by taking into account its effect on the

expectations of private agents. Presumably, the joint announcement after the secretive planning was made just at the time when the general public's belief in the strength of the dollar was about to erode. There had been many predictions of a sudden or gradual fall of the dollar, which had peaked in early March 1985, but market sentiment had not followed these predictions, until September when the Group of Five intervention provided a new impetus.

Once the balance of bearish and bullish expectations changed, the Japanese monetary authorities were able to ease their stance. On January 29, 1986, the Bank of Japan reduced the official discount rate from 5 per cent to 4.5 per cent. The value of the yen was not much affected, and it even showed some signs of a slight appreciation. Market participants seemed to consider that betting against the monetary authorities was too dangerous.

Moreover, the drastic decline in oil prices in late 1985 and the improvement in the terms of trade for Japan effected a further appreciation of the yen. Takatoshi Ito convincingly demonstrates, through an examination of hourly changes in exchange rates during a global business day of 24 hours, that the dominant determinants were the U.S. attitude toward exchange rates in September 1985, the Bank of Japan's high-interest-rate policy in late October, and the sharp decrease in oil prices after December 1985.¹⁹

General Assessment of the Present System

Despite its imperfections, the present system of flexible exchange rates does, in our opinion, provide an international monetary framework that satisfies minimum standards. The present system allows sufficient freedom to monetary authorities to pursue their own policies almost independently of the activities of the monetary authorities of other countries. We use the word *almost* because there are some positive or negative spillover effects even under the freely floating regime.²⁰ The intensity of interdependence, however, is indirect and of a second order compared with the intensity of interdependence in the fixed exchange-rate system, in which national price levels are directly linked. After the adoption of flexible exchange rates, the world economy came under the strong attacks of real disturbances, notably the two oil crises. Nonetheless, the present flexible exchange-rate system survived these disturbances without the financial panics experienced under the adjustable-peg system and without the imposition of exchange controls.

This recent experience has taught us, however, that the flexibility of exchange rates is not by itself a *deus ex machina* that can solve all external imbalances. Most of the earlier advocates of flexible exchange rates seemed to think that flexible exchange rates would balance current ac-

counts; presumably, they assumed a world in which capital flows were not particularly large. In contrast, in the present world where capital mobility is nearly perfect, the flexibility of exchange rates does not equilibrate current accounts. Whereas goods markets are sluggish in adjusting, the foreign exchange market is a volatile market where the excess demand for outstanding stocks of foreign-denominated financial assets clears instantaneously. Moreover, goods markets are usually constrained by the past course of prices, but foreign exchange rates jump around in response to changes in expectations of future exchange rates and underlying macroeconomic variables. These differences are quite likely to give rise to a situation in which nominal exchange rates as well as the corresponding real exchange rates are quite different from the value that would balance current accounts.

The often-cited wide discrepancy between the real exchange rate and the rate that purchasing power parity theory predicts probably implies this kind of divergence. Divergence can occur when exogenous disturbances shift the equilibrium rate and asset markets react to them quickly while goods markets adjust only slowly.²¹ In this case, even if the public were to find the right convergent path intuitively, the initial jump of the exchange rate would still be considerable. Divergence can also occur when the path diverges from the converging path to a "bubble path," where only instantaneous arbitrage conditions are set and transversality conditions²² are not fulfilled.

The existence of a trade or a current-account surplus by no means implies a misalignment of exchange rates. If two or more nations have different ratios of time preferences and accordingly different saving ratios, the equilibrium growth path may imply continuing trade or current-account surpluses (or deficits). For example, in light of Japan's high personal savings ratio and the low U.S. savings ratio, a continuing Japanese current-account surplus and U.S. deficit is a plausible phenomenon, at least analytically if not politically (see below).²²

Japan's current-account surplus and the United States' current-account deficit should be examined in global terms, not just in terms of the bilateral imbalance, because the efficient allocation of resources should be achieved globally rather than bilaterally and should be reflected in the global balance-of-payments position of each country. Moreover, it is not simply the difference in savings rates between two countries but the differences in rates of return on new investments that make it attractive to invest in one country or the other. Further complicating the case of the United States has been the Reagan administration's commitment to increasing total budget expenditures substantially, mainly for military purposes without a concomitant increase in tax revenues.

In any event, the difference in the speed of adjustment between goods markets and asset markets and the possibility of bubbles are often be-

lieved to make actual exchange rates diverge from the exchange rates that would govern some normal flow of international trade and investment. John Williamson utilizes the concept of a fundamental equilibrium exchange rate (FEER); that is, the exchange rate that would generate a current-account imbalance equal to the underlying net capital inflow or outflow.²⁴ This rate is presumably determined by fundamental factors. According to his calculations, in the first quarter of 1983 the U.S. dollar was overvalued by about 23 per cent and the Japanese yen was undervalued by 10 per cent from the FEER.²⁵ By early 1985 these deviations were substantially wider. He considers these misalignments to be even more important than the high degree of volatility in exchange rates.

According to Williamson, the costs of these misalignments and volatility are uncertainty in trade, distortion of consumption patterns, adjustment costs, unemployment, excess capacity, and pressures for protectionism. His argument would probably be true if some person or government could specify precisely the degree as well as the direction of misalignment. If that were possible, then the case for some form of managed float could easily be made.

The basic difficulty intrinsic to this problem is, however, that it is hard to determine very precisely whether the exchange rate is divergent from the level that the fundamentals would predict. There have been times, for example, 1982 or early 1985, when many people considered the yen-dollar exchange rate to be misaligned. During these periods, however, the yen remained relatively weak and the dollar strong. Market participants were aware of possible misalignments, but the market exchange rate did not change.

Another factor of importance is the ongoing and large difference in long-term interest rates between the United States and other countries, notably Japan. Added to that was the liberalization in Japan of portfolio restrictions on life insurance companies and pension funds to allow long-term investments in foreign assets. In early 1985, a portfolio manager for a Japanese life insurance company stated that his company focussed on the long-run yield over 20 years, to balance its requirements for payout periods, and that he regarded it as extremely unlikely that the yen would appreciate 5 per cent a year on average over 20 years, which was the difference in interest rate returns on long-term financial assets in Japan and the United States. His was apparently a good long-run investment strategy. However, it turned out to be a poor short-run investment strategy since the yen appreciated so much after Japanese insurance companies started purchasing dollar financial assets. (These losses were fortuitously offset in part by higher bond prices as U.S. interest rates declined.) Nonetheless, it does suggest that if the substantial interest rate

gap for long-term assets persists, Japanese long-term financial institutions will continue to enter the market and demand dollars.

Needless to say, in international monetary matters that involve political negotiations, governments know what private agents do not know. If a government can use extra information to narrow deviations of its exchange rate from the FEER, then it could use its informational edge in interventions, thereby giving the right signals to market participants uncertain about the appropriateness of current exchange rates. The reason why the joint announcement of the Group of Five worked well in fall 1985 was probably that there was sufficient doubt about the continuing trend.²⁶ This also suggests interventions are most successful in extreme conditions, such as in November 1978 or September 1985, when expectations can easily be influenced.

The exchange rate system cannot be evaluated in isolation from its impact on other systemic components of the international economic system. Although perhaps not the fault of the flexible rate system—since the same imbalance might well have occurred under a fixed exchange rate or some other system—the large U.S. trade and current-account deficits in the 1980s (see Table 1) have profoundly adverse implications not only for the U.S. economy and for U.S.-Japan economic relations but for the international economic system as a whole. The two major systemic effects are the increase in protectionist sentiments and policies in the United States and the shift in the United States' position from the world's largest creditor nation to its largest debtor. During the same period, Japan emerged as the largest creditor nation in the world; most of its foreign assets are held in U.S. bonds and short-term financial instruments, but investment in equities, direct investment, including real estate, and other dollar-denominated claims are increasing. Although Japan began to be a creditor nation in the early 1970s, the tendency was masked by the two oil crises. Its emergence as a creditor nation in the 1980s was amplified and accelerated by the U.S. deficits.

The increase in United States protectionist sentiment and actions in the 1980s stems from many causes, analysis of which is beyond the scope of this paper. Surely the immense trade deficits contributed substantially to perceptions—correct or not—in the United States, particularly in Congress, that the U.S. economy was being seriously hurt and that the foreign trading system somehow did not treat U.S. participants fairly. In fact, the burgeoning trade deficits of the 1980s were primarily the unintended consequence of domestic macroeconomic policies, notably the tax cuts and the expansion of the federal budget after 1981. In retrospect, it was a profound policy error. One great danger is that the United States will shift to a substantially more protectionist position in trade policy by the end of the 1980s. That would have significantly ad-

verse effects on the international trading system.²⁷ The experience of the 1980s raises a fundamental systemic question: Is it economically and politically possible to have both a free trading system and a system of free international financial flows? If the consequence is extreme trade imbalances (in amounts and as percentages of GNP) among the major participants, especially the United States, the answer may well turn out to be no. However, the problem is not the system of exchange rates and trade and capital flows per se but the underlying macroeconomic policies and structural conditions in each country.

The longer-run implications of the United States' becoming a huge debtor nation—say, \$600–1,000 billion by 1990—and of Japan's becoming a major creditor nation—say, \$450–600 billion by 1990—are only beginning to be understood. It is unclear how long and in what amounts these respective foreign debts (current-account deficits) and assets (current-account surpluses) will accumulate. What is clear is that even if these imbalances are eliminated completely, the adjustment process will take time, and at the minimum the respective debtor and creditor positions will be absolutely very large. Moreover, it is likely that a great preponderance of Japanese claims will be in dollars, and on the United States.

The interest, dividend, and profit income to be paid by the United States and received by Japan will become substantial and will affect the structural composition of merchandise and service trade in each country. Manufactured goods production and exports in the United States will grow rapidly relative to GNP, and manufactured goods production in Japan will slow down, with potentially significant effects on the structure of domestic production in each country. How much will depend on the cumulative size of the net debt or assets, foreign investment income flows, and the degree to which current-account imbalances persist.

The continuing net outflow of Japanese capital and the accumulation of such a large net foreign asset position will mean that both the Japanese government and Japanese private financial institutions will become a dominant player in world financial markets, a rapid quantitative and qualitative expansion of trends begun in the early 1980s. The yen will almost inevitably become an increasingly important reserve currency and transaction currency. Japanese financial institutions will have certain competitive advantages in assuming the management of these financial assets.

Such a large U.S.-Japan debtor-creditor position will inevitably make the bilateral relationship more complex and its management more complicated. A new, rather blunt, policy instrument will have been added to bilateral governmental negotiations. The situation will be fraught with danger because the possibilities of mutual damage are so great. A Japanese withdrawal of capital from the United States could precipitate a cri-

sis in the United States of very high interest rates, recession, and a sharply declining dollar-yen exchange rate, but Japanese investors would concurrently take immense exchange losses. Actions by the United States that reduced the value of Japanese assets—by inflation, freezing, or other acts—would much reduce U.S. credibility. Even the threat to take such actions would sharply reduce confidence. Recognition of these costs might even result in greater cooperation in the bilateral bargaining game between the United States and Japan; the symbiotic relationship in defense and trade will gain a debt dimension. At any rate, this new debtor-creditor relationship almost certainly will become an important new element in the interrelationships among bilateral issues of trade, finance, investment, exchange rates, macroeconomic policies, and perhaps even defense.

Short-run to Intermediate Policy Alternatives for Japan

There are several policy areas in which the Japanese government may be able to contribute to the solution of current and intermediate-run problems.²⁸ The national income-accounting identity shows that the current-account surplus is a measure of the net surplus savings of the national economy as a whole; that is, the sum of private net savings and government net savings. Thus, an immediate and effective measure to reduce Japan's trade surplus would be to increase government expenditure or to reduce tax revenue, unless private net savings increase to offset completely the increase in government net absorption. Although some neo-Ricardian economists maintain that private spending offsets government action more or less completely (the rational expectations approach), we do not think that complete offset is a reality for either the Japanese or the U.S. economy. Accordingly, the Japanese current-account surplus will be reduced if Japanese fiscal policy becomes more expansionary. Changes in the exchange rate and terms of trade promote adjustment by affecting consumption as well as investment decisions. For example, substantially cheaper prices for imported goods encourage greater consumption and less saving by private savers. Nonetheless, the main point of our argument still remains; namely, changes in exchange rates and terms of trade do not reduce current-account surpluses unless they effectively influence the net surplus savings of the national economy.

Moreover, a policy of trade liberalization, including politically difficult sectors such as agriculture and services, should be welcomed for its own sake in order to promote efficiency and to benefit consumers. We certainly do not underestimate the importance of trade liberalization, but unless liberalization efforts affect the terms of trade strongly enough to

change the net savings pattern of the national economy, the impact of such measures on Japan's current-account surplus will be modest.²⁹

Foreign exchange interventions combined with contractionary monetary policy can have a considerable effect on the exchange rate, as exemplified by the Group of Five's interventions. However, by the same reasoning, in the case of trade liberalization, the effect on the current-account surplus will be limited without drastic real appreciation of the yen.

Of course, it is one thing to say that fiscal expansion is effective; it is quite another to say whether the political environment in Japan enables or forces the government to adopt more expansionary fiscal policies. Since 1981, Japan as an integral element of its administrative reform program has been undergoing a fiscal consolidation by reducing deficit financing in the budget; resistance to the misuse of resources in the government sector is strong. The Ministry of Finance has been reluctant to introduce any measures that would increase the general budget deficit. Unless foreign pressures for macroeconomic expansion counteract this resistance or unless Japan falls into a severe recession, Japanese fiscal measures are unlikely to be substantially expansionary. Moreover, during most of the early 1980s, the domestic need for fiscal stimulus was not obvious. After the Group of Five's intervention, the situation became somewhat different because of the slowdown in growth.³⁰ It is quite possible to imagine a scenario in which Japanese growth declines sharply after 1986 (to substantially less than 3 per cent) and business pressure builds for some expansionary fiscal policy—tax cuts or expenditure increases. Under these circumstances, the Japanese government should implement measures that minimize revenue losses and maximize the impact on domestic demand, in addition to the more conventional and straightforward macro fiscal policy instruments of tax cuts and increases in expenditures.

First, the corporate tax system could provide more incentives for new investment; for example, tax reductions for incremental investment increases used would encourage domestic investment with only moderate losses of tax revenues. Second, Japan could implement accelerated depreciation allowances to encourage domestic investment; the present Japanese corporate tax system does not provide particularly attractive investment incentives; early indications suggest the proposed tax reform legislation of 1987 is not likely to provide direct investment incentives either. (The first two measures are revivals of the supply-side policies—Japanese-style—of the early 1960s.)³¹

Third, some encouragement for consumer loans in the personal taxation system could be implemented, in particular, tax benefits for interest payments for residential construction to stimulate housing investments.

The tax code of 1985 allows only very minor deductions (below \$750 per family a year) for the repayment of mortgage debt.

In summary, in the intermediate future, fiscal policy could be instrumental in reducing Japan's current-account surplus. The most desirable forms of fiscal expansion would not increase fiscal deficits excessively, even though some short-term deviation from the fiscal discipline of reducing budget deficits appears essential in order to expand domestic demand.

Thus, the solution to the current-account problem lies not so much in trade policy or exchange rate policy as in fiscal policy. The quest for a more stable exchange regime should be carried out for its own sake and not primarily for the purpose of solving the imbalance in the current account. This evaluation applies, *mutatis mutandis*, even more strongly to the United States, though of course the desirable direction of fiscal policy is the opposite.

The Possibility of Future Reform of the International Monetary Regime

What, then, is the scope for long-range reform of the international monetary regime, and what role can Japan play? We first list several alternative schemes for possible reforms and discuss the desirability of each. We then conclude by considering the feasibility of these schemes in the light of benefit-cost structures that they impose on the participating countries.

The current regime. Major industrialized countries float their currencies; small countries typically peg their currencies to that of a large trading partner or to some weighted average of exchange rates of major trading partners.³² There are no fixed, agreed on rules for exchange interventions. Monetary authorities let market forces determine the values of their currencies in many instances, but occasionally intervene in exchange markets as an individual country or through joint actions. Sometimes these interventions have been effective in changing the tide of exchange rate movements. Sometimes they have not. As we argue above, the current system could be regarded as satisfying the minimum requirements for an international monetary system; in a sense, each country is allowed to take a reasonable max-min strategy by choosing its own relatively independent monetary policy.

Return to the adjustable-peg system. The history of the collapse of the Bretton Woods regime reveals the problems of the adjustable-peg system. The adjustable nature of the system works against the creation of credibility for the currently fixed parity; pegging intrinsically makes the smooth adjustment of the balance of payments difficult. The develop-

ment of completely free international financial markets in the 1980s has made even easier not only the flow of capital but also the possibilities of speculation in foreign exchange markets whenever rates appear to be unrealistically pegged by governments. There is no desirable way to return to this old system.

Intervention based on profit motives. Friedman states that monetary authorities intervening in the exchange market according to the profit criterion normally serve to stabilize the path of flexible exchange-rate movements. According to this view, governments should intervene in such a way as to maximize their profits from intervention. As Mayer and Taguchi argue, however, there are several conceptual problems as well as difficulties of measurement with this proposition.³³ Nonetheless, this approach appears worth pursuing. Some ideal intervention schemes may help stabilize the yen and internationalize it, possibly by a competitive process.³⁴

Coordination of monetary policies. The idea of attaining stable exchange rates by coordination of monetary policy among the major nations has been raised in a stimulating proposal by Ronald McKinnon.³⁵ He maintains that a nation's price level correlates more with the aggregate world money supply than with its own national money supply. Even though his empirical claim is not fully convincing, it is quite natural in the presence of currency substitution that a nation's price level correlates not only with its own money supply but also with those of other currencies. McKinnon argues that by stabilizing the weighted sum of the money supplies of major currencies—namely, the dollar, the mark, and the yen—price stability in the world economy as well as stability in exchange rates can be attained. He suggests, though with some reservations, that the stabilized exchange rate achieved under such a tripartite money agreement might eventually lead to a system close to the fixed exchange-rate system; interventions in the exchange market would eliminate short-run volatility of exchange rates within, for example, a 2 per cent band of the parity.

Since exchange rate determination depends strongly on the money supply process, regardless of the system, McKinnon's proposal reflects basic economic logic. Problems remain, of course: Why are three countries sufficient? How are the weights in his global monetarist formula to be calculated? How are real disturbances that affect the composition of the currency basket to be handled? And are the three governments willing to give up national monetary autonomy for the sake of tripartite monetary stability? Despite these problems, his proposal contains interesting elements that continue to stimulate thinking on the ideal monetary system for the future.

Interventions to maintain a target zone. Based on his diagnosis of the rea-

sons for the misalignment of exchange rates of major currencies, John Williamson proposes that governments identify, in consultation with the IMF, the set of fundamental equilibrium exchange rates (FEER) and publicly declare their support for a system of crawling target zones with soft margins.³⁶ This target exchange-rate zone should be supported by governments through concerted interventions and a combination of suitable monetary policies. This kind of system would be desirable if the specific measurement of the FEER is easy. The difficulty in the real world under uncertainty is that diverse opinion may exist concerning the true value of the FEER.

Whereas the McKinnon proposal is limited to control of the money supply from a monetarist point of view, Williamson takes a broader perspective that includes fiscal as well as monetary policy. Indeed, much of the discussion in the mid-1980s about the possibility of macroeconomic coordination focuses on budget issues, in terms both of expenditures and of the nature of the tax system, as well as on the money supply. A further key question is to what degree the structural differences in the investment and savings rates of countries should be incorporated into this type of analysis of the FEER. The United States in the 1980s can be regarded as a special case because it has pursued a policy based not on a structural gap between domestic savings and investment but on a deliberate pursuit of high expenditures relative to production, made possible by historically high real interest rates, capital inflows, an overvalued dollar, and an excess of imports over exports.

Finally, we move from the normative question of what regime is desirable to the positive question of what kind of regime is likely to be realized. As explained in our introduction, the ongoing system will most likely continue unless the present situation deteriorates enough to make any important participant willing to give up the benefits of the status quo. So long as the current half-managed float is rendering imperfect but tolerable service, a drastic change of regimes will not take place.

From this perspective, the likelihood of a drastic reform in the intermediate future seems small. Among the alternative schemes listed above (other than the status quo), a return to the adjustable-peg system does not seem realistic, and intervention based on profit motives contains some conceptual difficulties. Moreover, there may be political or psychological resistance to the idea that a government or a central bank should behave primarily according to profit criteria.

The fourth alternative, the coordination of monetary policies, is a provocative idea. However, achieving agreement on the proper weights for the currency composition of the global money basket or on the proper distribution of the costs of monetary expansion (or contraction) among the participant countries will not be easy.

The fifth alternative, the announcement and observance of a soft target zone, appears desirable, but realizing it would require very substantial international coordination and agreement. First, countries would have to agree on some reasonable ways of calculating the FEER. Then, they would have to agree on the desirable degree of concerted actions in interventions. Even after agreement on evaluation of the current situation and on the possible remedy is achieved, the question of which countries should engage in interventions will have to be negotiated. The major countries have a long way to go to achieve all of these. The Baker-Miyazawa (U.S.-Japan) agreement of October 1986 was a step toward a target zone system, but it is unclear how long this agreement will last. Exogenous shocks are inevitable, but usually difficult to predict; they are likely to interrupt any system of a crawling exchange-rate zone.

In sum, the adoption of flexible exchange rates essentially ended the necessity of parallel movements in price levels, although there still exists more subtle interdependence among countries. Thus, the current system enables monetary authorities to enjoy a greater degree of monetary autonomy compared with the Bretton Woods regime. Each country has more freedom to choose its own price level since it is less affected by the policies of its major economic partners. In this sense, one may heuristically state that the "max-min" solution under flexible exchange rates provides relatively attractive solutions to participating countries, or that the noncooperative Nash equilibrium in the policy game under flexible exchange rates diverges less from cooperative outcomes, as compared with game solutions under the Bretton Woods regime. In the game of choosing or agreeing on a new exchange rate regime, it would be difficult to find payoffs under a new system that exceeded those of the status quo solution. Accordingly, this cost-benefit structure may give the present system a much longer life span than many have expected.

The dissatisfaction expressed in the mid-1980s with the current managed float regime does not justify a return to the old system. Even though participants in the present system seem to desire some degree of cooperation, cooperation is not crucial. Under the fixed exchange rate, cooperation was inevitable, but the incentive structure to realize cooperation was inadequate. The old system lacked coherent incentive compatibility, in addition to being vulnerable to speculative attacks.

A system based on a single global currency and a single monetary authority might be an economic ideal. But without world government, the achievement of a single currency system with full public-goods benefits would be extremely difficult, if not impossible. The loss of national autonomy in monetary policy during the process of attaining such a system would be immediate and concrete, whereas the potential benefits would accrue only when the final stage of world currency unification was

reached. The realization of a completely fixed exchange regime without the possibility and defects of rate adjustment would be even more politically than technically difficult.³⁷

The existence of considerable trade or current-account imbalances does not necessarily imply the misalignment of nominal exchange rates. In the year of continuing devaluation of the dollar following September 1985, for example, Japan's current account continued to increase substantially in dollars though its growth slowed down in yen. Although this is in part a short-run J-curve effect, the evidence suggests that structural mechanisms related to savings and investment behavior may be embedded in the world economy such that certain countries accumulate considerable current-account surpluses or deficits. Although the United States may in time eliminate its deficit, we anticipate a Japanese tendency to surplus for the foreseeable future.

Where will Japan stand then? Japan's economy now occupies a substantial share of the world economy—about one-tenth. Its trade structures and wage and price determination mechanisms are quite different from those of the United States and Western Europe as well as from those in developing countries. It seems therefore that the optimum currency area for Japan is Japan itself.³⁸ In addition, there seem to be many factors in Japan that obstruct the achievement of international reforms in the direction of stabler and quasi-fixed exchange rate regimes. Even though some former government officials apparently feel nostalgic for the Bretton Woods regime, it seems quite unlikely that sufficient political momentum based on economic interests will come about to motivate Japan to pursue a drastic reform. The only likely exception would be if protective pressures from outside Japan become stringent. This catastrophic situation might make a drastic reform possible, even though exchange rate reform by itself will not solve balance-of-payments problems unless accompanied by appropriate changes in macroeconomic fiscal and monetary management.

Thus, a realistic role in the monetary regime for the foreseeable future is for Japan to continue to be passive and to practice a managed float. Sometimes it will let the yen exchange rates be freely determined by the market; sometimes it will intervene unilaterally or multilaterally if the Japanese government feels the yen is misaligned. Depending on its ability to influence public expectations, intervention policy will or will not be successful.³⁹ In order to be realistic and not engage in wishful thinking, we are obliged to end this paper on this skeptical note.