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Japanese Capital Flows in the 1980s

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Concern about the extent to which Japanese investors will continue to invest abroad has prompted attention to understanding the determinants of Japanese capital outflows. This paper discusses Japanese capital outflow trends and their determinants during the 1980s. It highlights the roles of excess Japanese savings, U.S. government budget developments, and Japanese financial market liberalization. It concludes that the massive Japanese capital outflows during most of the 1980s are likely to decline in the future.

During the 1980s Japan became the world's largest capital exporter. From a mere $10 billion in 1981, its net long-term capital outflows rose to a peak of $137 billion in 1987, before declining to the still substantial level of $89 billion in 1989. As the world's largest capital exporter, Japanese investors have been leading acquirers of U.S. securities and other types of debt, with net long-term capital outflows to the U.S. amounting to $54 billion in 1989.

Many policymakers, especially in the United States, have been concerned about the extent to which Japanese investors will continue to invest abroad, in general, and in dollar assets, in particular. If Japanese portfolios become too saturated with holdings of dollar assets, it is argued, Japanese investors will curtail their demand for U.S. assets and/or require larger risk premiums for continuing to hold these assets. Such behavior would adversely affect U.S. financial markets by inducing higher U.S. interest rates and a lower value of the dollar.

Understanding past and current determinants of Japanese capital outflows is important for evaluating the prospects for future outflows. The logic of macroeconomic accounting implies that Japan's capital outflows are the counterpart of its current account surpluses during the past decade. A country's current account is, in essence, the macroeconomic balance between national savings and investment. To the extent that a country runs a current account surplus by exporting (selling) more goods and services than it imports (buys), it must lend the difference to foreigners. It does so by investing and acquiring an equal amount of net claims on foreigners through its capital account. Correspondingly, a country that imports (buys) more than it exports (sells) must borrow the difference by issuing liabilities to foreigners. Thus U.S. capital inflows are the counterpart of U.S. current account deficits.

Most discussion of Japan's capacity and willingness to finance U.S. current account deficits has focused on trade in goods and services and factors that influence Japanese net exports and U.S. net imports of goods and services, such as relative price levels and income levels.[1] The logic of macroeconomic accounting, however, implies that capital flows are also important. It suggests that relative savings and investment levels and interest rates, factors

that more directly influence Japanese net demand for foreign assets, are important as well.

From this perspective, the accumulation of U.S. assets by Japanese investors need not be viewed as purely residual and involuntary behavior necessary to finance the ongoing excesses of U.S. imports of goods and services over exports. Rather the increase in capital outflows from Japan may at least in part have arisen for other independent reasons.

This article discusses recent trends and features of Japan's net capital outflows during the 1980s and the major factors that brought about their increase. It highlights the roles of both macroeconomic and microeconomic factors, particularly those independent factors that have directly influenced Japan's capital account transactions.

On the macro level, underlying the rapid Japanese accumulation of overseas assets during the 1980s has been the emergence of a large excess of domestic saving over domestic investment in Japan. Rising budget deficits and a corresponding demand for capital in the United States have played an important role as well. On the microeconomic level, the process of financial market liberalization in Japan permitted greater competition among individual financial institutions and allowed more Japanese investors to engage in international capital transactions.

The paper is organized as follows. Section I looks at the trend and composition of Japanese international capital account transactions. Section II discusses the role of macroeconomic factors for the rise in net Japanese outflows. Section III examines the role of microeconomic and institutional factors. Section IV discusses the outlook for the magnitude of future Japanese capital outflows.

I. Japanese International Transaction Trends

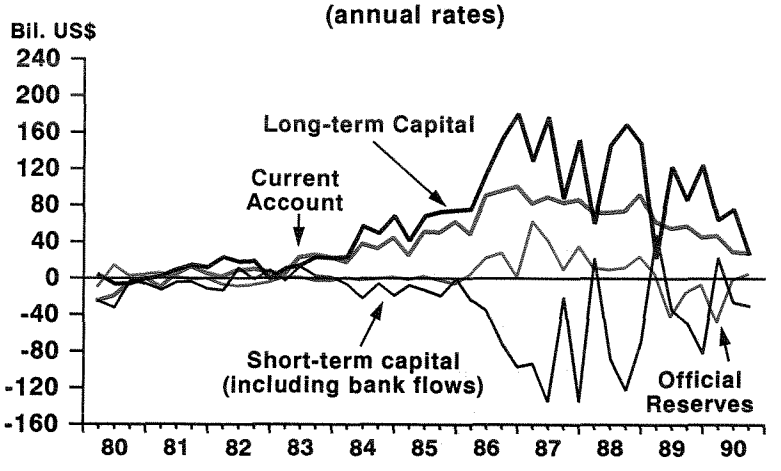
Current and Capital Account Overview

Table 1 presents figures for broad categories of Japan's international transaction flows for the period 1980-90.[2] As the figures indicate, Japan has experienced sustained current account surpluses since 1981. These surpluses have increased rapidly, rising from $5 billion in 1981 to a peak of $87 billion in 1987, roughly 4 percent of Japan's GNP. Since then the current account surpluses have declined.

The rapid rise in Japan's current account surplus since 1981 has had its counterpart in a greatly increased net outflow of capital, particularly in net long-term investments.[3] (Net long-term investments are defined as gross outflows of capital invested in foreign assets *minus* gross inflows of capital invested in Japanese liabilities, all with maturities of more than one year.) Net long-term capital account outflows rose from $10 billion in 1981 to $137 billion in 1987, before falling to $89 billion in 1989.[4] The partial data available for 1990 indicate that this decline in capital outflows is continuing.[5]

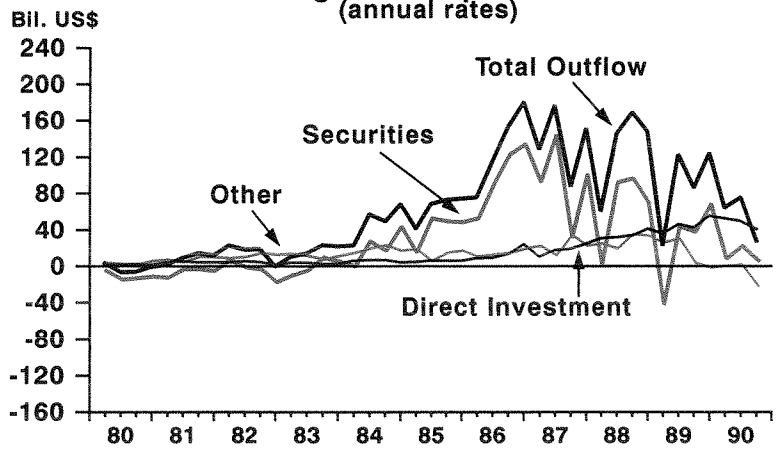
As shown in Chart 1, since 1981, Japanese net long-term investments have been consistently greater than the current account surpluses. Beginning in 1986, the magnitude by which long-term investment outflows exceeded the current account surpluses has been particularly large. This suggests that Japanese capital outflows reflect factors motivating a greater demand for foreign assets, in contrast to the

Chart 1
Japanese Net International Transactions
(annual rates)



Note: Positive values indicate current account surplus or net capital outflows.

Chart 2
Net Long-term Capital Outflows
(annual rates)



Note: 'Other' includes trade credit and loans.

view that Japanese investors have acquired foreign assets involuntarily merely to finance unbalanced trade in goods and services.

The net long-term capital outflows arising from the purchase of foreign securities by Japanese investors have generally been accompanied by net short-term capital inflows. (See Table 1.) Between 1986 and 1988 the short-term capital inflows were especially high. These capital inflows have been particularly associated with short-term foreign borrowing by Japanese banks.

Net movements in Japan's official reserve assets have reflected the foreign exchange intervention policies of Japanese monetary authorities. Prior to 1985 these movements were negligible. Between 1985 and 1988 Japanese monetary authorities generally accumulated foreign exchange reserves, particularly in 1987 ($39.2 billion) as a result of efforts to slow the appreciation of the yen. Thus in these years monetary authorities, in addition to private investors, helped finance Japan's current account surpluses. In 1989 this pattern reversed. Net reserve outflows amounting to $12.8 billion accompanied efforts to dampen the weakening of the value of the yen. Reserve outflows continued in 1990.

Composition of Long-Term Capital Flows

The changes in Japan's net long-term capital outflows during the 1980s primarily reflect movements in net securities outflows. (See Chart 2.) Japan's net direct investment outflows have increased steadily in recent years, but

Table 1
Japanese International Transactions
(Billions of dollars)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990*
Current Account Balance	−10.7	4.8	6.9	20.8	35.0	49.2	85.8	87.0	79.6	57.2	37.0
Long-term Capital, net	2.3	−9.7	−15.0	−17.7	−49.7	−64.5	−131.5	−136.5	−130.9	−89.2	−56.1
Short-term Capital, net	16.3	8.7	−1.5	−3.5	13.3	9.9	56.9	95.7	64.0	29.4	11.2
Bank-related	13.1	6.4	0.0	−3.6	17.6	10.8	58.5	71.8	44.5	8.6	9.8
Other	3.1	2.3	−1.6	0.0	−4.3	−0.9	−1.6	23.9	19.5	20.8	1.3
Official Reserves, net	−4.9	−3.2	5.1	−1.2	−1.8	−0.2	−15.7	−39.2	−16.2	12.8	12.8
Official Non-Reserves, net	0.2	−1.1	−0.2	−0.4	−0.5	1.7	2.0	−3.0	0.7	11.9	0.7
Errors & Omissions	3.1	0.5	4.7	2.1	3.7	4.0	2.5	−3.9	2.8	−22.0	−15.4

*Figures for 1990 are annualized from data for the first three quarters of the year.

Note: Positive entries indicate net capital inflows or current account surplus.

Source: Bank of Japan, *Balance of Payments Monthly* No. 291, Oct 1990.

still account for only about 20 percent of total net long-term capital outflows.[6]

On the outflow side, *gross* long-term foreign securities purchases rose from $3.8 billion in 1980 to $102.0 billion in 1986, fell off somewhat in 1987 and 1988, before rising again in 1989 to $113.3 billion. (See Chart 3.) Foreign securities investment averaged 72 percent of long-term capital outflows in 1986 and 1987, but fell to 59 percent in 1988 and 1989. Roughly 80 to 90 percent of Japanese *gross* foreign securities purchases have been in bonds, but a trend towards more stock purchases has recently emerged.[7]

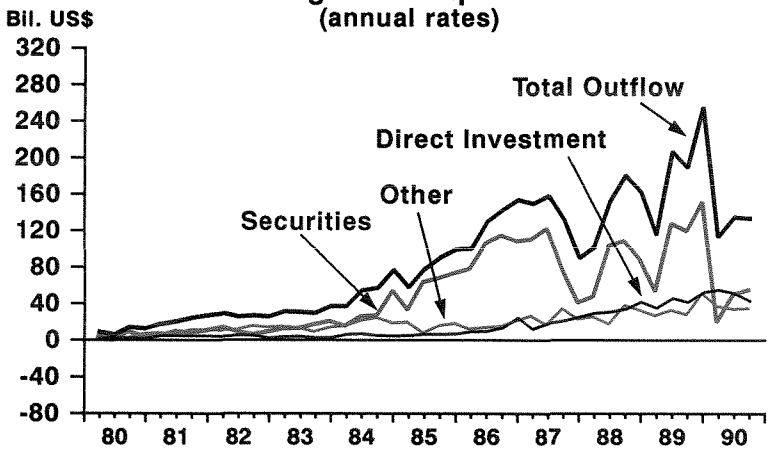
On the inflow side, purchases of Japanese securities have generally accounted for more than 90 percent of *gross* long-term capital inflows. (See Chart 4.) These securities inflows remained relatively constant from 1980 to 1985, averaging $13 billion per year. Since 1986 they have fluctuated more significantly, primarily in association with movements in Japan's stock market, and rose dramatically to $89 billion in 1989.[8]

Institutional Investors

As Table 2 indicates, most of Japan's foreign securities outflows are attributable to Japanese bank and nonbank financial institutions. Their purchases of foreign securities typically account for 60 to 70 percent of gross Japanese long-term securities purchases. The remainder is attributable to nonfinancial firms and individuals, for which detailed data are not available, and is calculated as a residual.

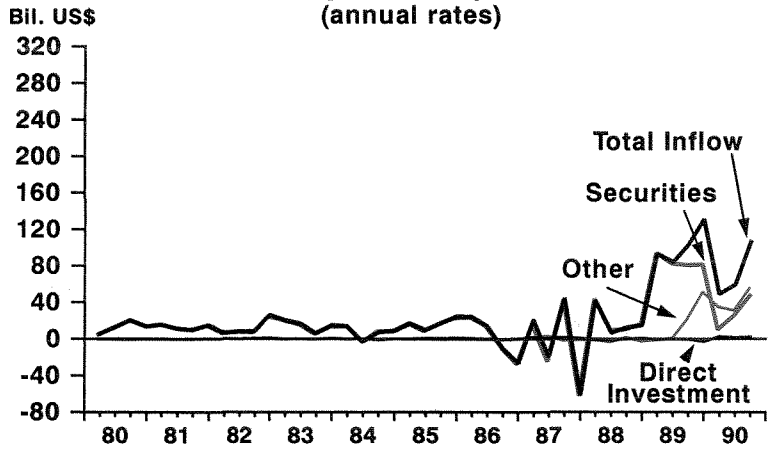
Chart 5 presents the ratios of foreign securities holdings to total assets for different types of financial institutions. With the major exception of securities investment trusts,

Chart 3
Gross Long-term Capital Outflows
(annual rates)



Note: 'Other' includes trade credit and loans.

Chart 4
Gross Long-term Capital Inflows
(annual rates)



Note: 'Other' includes trade credit and loans.

this ratio generally increased for all types of institutions throughout the past decade. This suggests that factors affecting the foreign investment behavior of Japanese financial institutions have been important determinants of Japanese outflows during the 1980s.

Despite the common trend of increase in the ratio of foreign securities to total assets, there are differences in the magnitude of the ratio of foreign securities to total assets among investors. In particular, as may be observed from Chart 5, the ratio is high for insurance firms, trust accounts, and investment trusts. The ratio for Japanese banks is relatively low. This suggests that factors affecting the allocation of funds among Japanese investors and their ability to invest abroad has played a role in the composition of Japanese capital outflows.

Geographic Composition of Securities Outflows

Where have Japanese investments been going? There are no comprehensive direct statistics on the currency composition of Japanese foreign securities investments, but indirect evidence is available.

Table 3 breaks down Japanese foreign securities investments, including both stocks and bonds, by the country in which they are acquired.[9] As the table indicates, although the United States continues to attract a high percentage of Japanese investment, the ratio peaked in 1985 at 56 percent and has since been declining, with a discernible sharp drop in 1989.[10]

However, a sizable proportion of overseas investments is in Luxembourg and the U.K., centers of Eurobond trading, particularly in Eurodollar securities. In fact, almost all of the investment in Luxembourg is in dollar-denominated Eurobonds. The total share of securities in the U.S.and Luxembourg, a rough proxy for dollar-denominated investments, peaked at 78 percent in 1985, but has slowly declined to 66 percent in 1989.[11]

Available data on the currency composition of foreign securities investments by institutional investors supports the general inference from the aggregate data that dollar-denominated assets dominate overseas Japanese investments. Deguchi (1987), for example, reports data on the composition of foreign investment by Japanese life insurance companies. He finds that at the end of 1986 these firms held 57 percent of their foreign investment in dollar-denominated securities.

The discussion in this section has identified several

Table 2

Securities Capital Outflows by Type of Investor

(Billions of dollars)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990*
Institutional, Total	5.5	6.5	7.6	10.9	19.8	36.5	70.2	47.6	43.6	84.5	55.6
Banks	0.8	1.8	2.9	2.6	7.4	13.8	15.0	7.8	3.5	23.5	25.1
Life Insurance Companies	0.5	2.0	3.1	4.3	3.8	3.9	15.0	21.0	21.4	29.6	12.8
Securities Investment Trust Companies	0.6	0.4	−0.2	0.3	2.5	3.3	13.5	1.6	5.0	0.3	−11.5
Other Trust Accounts	0.1	0.7	0.9	1.6	2.1	8.5	16.3	11.5	2.3	15.5	5.0
Other Insurance	0.9	0.2	0.4	1.0	1.0	0.9	2.1	2.6	2.3	4.5	3.9
Postal Life Insurance	0.0	0.0	0.0	0.8	1.5	1.6	3.1	3.5	2.1	1.7	1.9
Co-operatives	2.7	1.3	0.4	0.3	1.4	4.5	5.2	−0.3	7.0	9.4	18.3
Non-Institutional	−1.7	2.3	2.1	5.1	11.0	23.3	31.8	40.1	43.3	28.8	−13.9
Total Securities Capital Outflow	3.8	8.8	9.7	16.0	30.8	59.8	102.0	87.8	86.9	113.3	41.7

*Figures for 1990 are annualized from data for the first three quarters of the year

Note: Flow figures for institutional investors were calculated by dividing the change in year-end foreign security holdings valued in yen by the year-average dollar-yen rate. Noninstitutional figures were calculated as the residual from total securities capital outflow. Negative entries indicate sales exceed purchases.

Source: Institutional foreign securities investment data from Bank of Japan, *Economic Statistics Monthly;* exchange rate data from IMF, *International Financial Statistics;* total securities capital outflow data from Bank of Japan, *Balance of Payments Monthly.*

Chart 5
Foreign Securities as a Percent of Total Assets by Institution

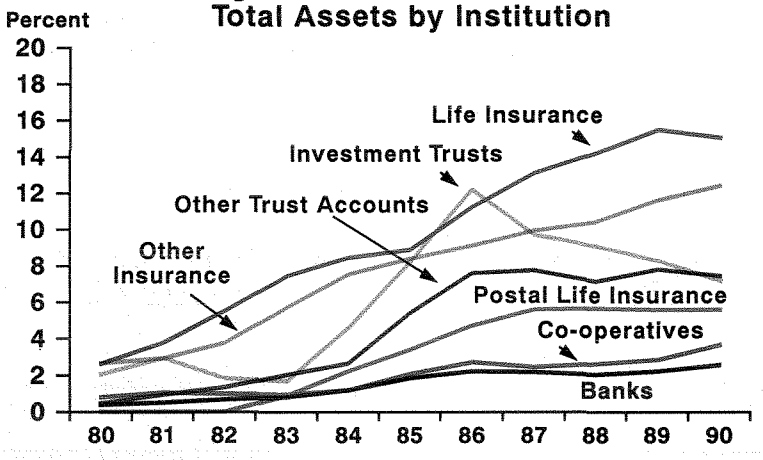


Table 3

Geographical Distribution of Japanese Securities Capital Outflows

(Billions of dollars, percent in parentheses)

	1981	1982	1983	1984	1985	1986	1987	1988	1989
U.S.	1.5	0.4	5.0	11.4	31.3	49.6	37.4	36.2	26.5
	(25.5)	(6.8)	(38.3)	(42.4)	(56.4)	(49.1)	(41.3)	(40.7)	(23.3)
Luxembourg	1.4	1.7	3.2	6.2	11.7	24.3	27.2	25.4	48.1
	(23.4)	(26.6)	(24.4)	(23.3)	(21.1)	(24.1)	(30.0)	(28.6)	(42.3)
U.K.	1.4	2.0	2.2	3.8	6.2	12.8	8.7	10.7	11.1
	(22.6)	(32.8)	(17.0)	(14.1)	(11.2)	(12.7)	(9.6)	(12.0)	(9.8)
West Germany	0.6	−0.1	0.2	−0.0	0.4	3.2	5.6	6.0	4.5
	(9.7)	(−1.5)	(1.3)	(−0.1)	(0.8)	(3.2)	(6.2)	(6.8)	(4.0)
Netherlands	0.2	−0.1	0.0	0.0	−0.1	0.1	0.5	0.8	0.3
	(2.7)	(−1.7)	(0.4)	(0.2)	(−0.1)	(0.1)	(0.6)	(0.9)	(0.2)
France	−0.0	0.1	0.1	0.0	0.0	0.4	1.0	0.6	3.9
	(−0.1)	(1.4)	(0.5)	(0.1)	(0.1)	(0.4)	(1.2)	(0.6)	(3.4)
Switzerland	0.0	0.0	0.2	0.9	0.5	0.1	0.4	0.9	1.2
	(0.5)	(0.7)	(1.4)	(3.5)	(1.0)	(0.1)	(0.4)	(1.0)	(1.1)
Australia	0.1	1.8	0.7	1.6	1.0	−0.3	2.4	1.8	1.5
	(1.9)	(28.4)	(5.5)	(5.9)	(1.7)	(−0.3)	(2.7)	(2.0)	(1.4)
Canada	0.8	0.1	1.1	2.1	2.2	6.6	2.5	1.4	4.8
	(12.4)	(1.5)	(8.0)	(7.7)	(4.1)	(6.6)	(2.8)	(1.5)	(4.2)
Others	0.1	0.3	0.4	0.8	2.1	4.2	4.8	5.1	11.8
	(1.5)	(4.9)	(3.2)	(3.1)	(3.8)	(4.2)	(5.3)	(5.8)	(10.3)
Total	6.1	6.2	13.2	26.8	55.4	101.0	90.6	88.9	113.7
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Note: Excludes yen-denominated foreign bonds; includes foreign exchange-denominated bonds issued in Tokyo. Negative entries indicate sales exceed purchases.

Source: Ministry of Finance, *International Finance Bureau Yearbook*, (Kokusai Kin'yu Kyoku Nenpo).

major features of Japanese capital outflows. First, net long-term outflows have exceeded current account surpluses, particularly since 1986. Most of these outflows are associated with foreign securities purchases. Second, net short-term capital inflows have been significant, especially those associated with Japanese banks. Third, most Japanese institutional investors have significantly raised the ratio of their foreign securities to asset holdings. Lastly, most of these capital flows have been into dollar-denominated assets.

II. Macroeconomic Determinants of Capital Outflows

The growth and composition of Japanese capital flows during the 1980s may be explained by a number of factors. The macroeconomic factors, discussed in this section, include the emergence of excess domestic savings in Japan and growing U.S. government budget deficits, as well as changing exchange rate expectations and risk perceptions. The microeconomic factors, which include the effects of Japanese financial liberalization, are discussed in the following section.

Excess Japanese Savings

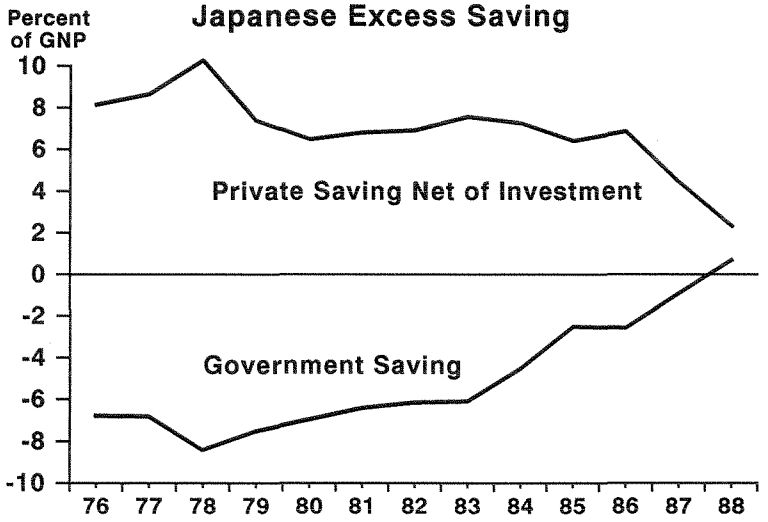
From national income account relationships, a country's net capital outflows equal its excess domestic savings. To the extent that a country saves more than it invests domestically, it must lend the difference to foreigners. It does so by exporting (selling) more goods and services than it imports (buys), running a current account surplus, and correspondingly investing and acquiring an equal amount of claims on foreigners through its capital account.

The domestic savings balance can be broken into a private saving balance and a government saving balance. Thus net capital outflows, and correspondingly the current account surplus can be expressed as the sum of the excess of private savings over private investment and of government tax receipts over government expenditures.

Chart 6 shows the patterns of private saving net of investment and government saving in Japan. Between 1980 and 1986, Japan's surplus of private saving over investment averaged nearly 7 percent of GNP. Although Japan's private savings rate has remained relatively high, compared to other industrial countries during this period the private savings rate actually fell.[12] However, declining domestic investment generally offset the drop, leaving private saving net of investment relatively unchanged.

The decline in investment through the mid-1980s can be attributed to the reduced domestic prospects for investment arising from a deceleration in Japan's long-run growth rate that began in the 1950s, and continued through the 1960s and 1970s. Kasman (1987), for example, estimates that Japan's potential real growth fell from 9 percent over the period 1967-1973 to 4.5 percent over 1976-1986. Other reasons that may have contributed to the drop in investment include higher real interest rates, diminishing returns to investment, and the rising price of urban land which caused residential construction to fall.

Chart 6
Japanese Excess Saving



The reasons for the decline in savings also included slower growth as well as the ongoing aging of Japan's population. Japan's birth rate has fallen significantly in recent years. In 1989, Japan's fertility rate fell to a post-war low; the average Japanese woman of child-bearing age had 1.57 children, down from 1.77 children in 1979 and 4.54 in 1949, well below the estimated 2.1 rate needed to prevent the population from eventually declining.[13] The resulting slower growth in the number of labor force participants who save relative to the number of people entering retirement who dissave has lowered the overall level of private saving.

With private excess savings relatively flat or falling for much of the 1980s, most of the increase in Japan's net capital outflows has been associated with an increase in government saving (that is, government receipts minus expenditures). Mainly because of reduced spending, the Japanese government budget deficit has declined steadily, since 1978, when it amounted to more than 8 percent of GNP. It fell throughout the 1980s and turned into a small surplus in 1988. This improvement in the government budget balance reduced the public sector's demand for domestic saving. Thus the shift in the flow of Japanese government saving, combined with relatively high domestic private saving and investment, resulted in excess Japanese savings, in effect providing the resources for foreign investment.

Since 1987, however, economic growth in Japan has boomed. Domestic investment rose to meet more favorable opportunities. As a result, the gap between private saving and investment fell sharply to 2 percent of GNP in 1988. (Later figures are not yet available.) The fall in the magnitude of Japan's current account surpluses and capital outflows that began in 1988 can be associated with this decline in excess savings.

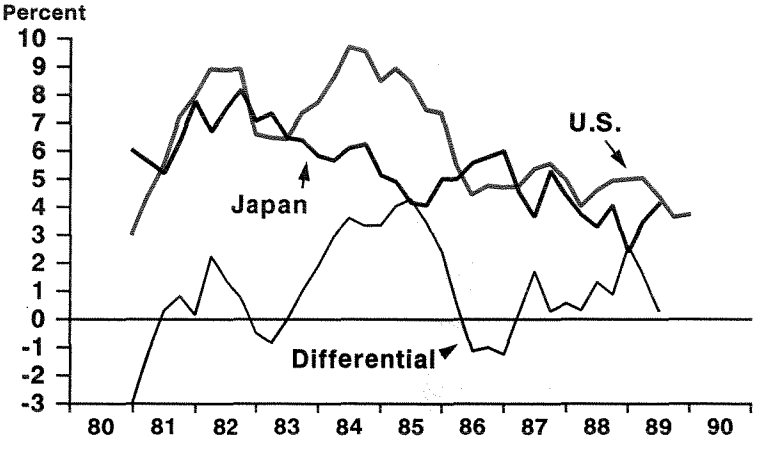
Financing U.S. Budget Deficits

In a global context, Japan's capital outflows are net capital inflows for the rest of the world. In the U.S., Japan's largest external debtor, rising budget deficits from 1980 to 1985 and corresponding demand for capital in the U.S. were also major factors in generating Japanese foreign investment.[14] The U.S. budget deficit, which averaged less than 2 percent of GNP in the 1970s, climbed to 5 percent of GNP following the 1981-83 tax cuts and defense buildup. This in turn pushed up U.S. real interest rates and attracted capital from abroad, which induced the appreciation of the dollar against the yen.[15]

The relationship between Japan and U.S. economic activity is evident in trends followed by real long-term interest rates during the 1980s. Chart 7 shows that U.S. real interest rates (adjusted for expected inflation, as proxied by the year-ahead actual change in prices) rose sharply in 1981 and remained well above Japanese rates over the first half of the decade.

The relatively higher return on U.S. financial assets boosted ex ante demand for U.S. assets from abroad. Declining Japanese government borrowing, combined with relatively loose monetary policy and falling interest rates reduced the supply and attraction of Japanese domestic investment outlets. This series of developments is consistent with the movement of net capital outflows from Japan

Chart 7
Japanese and U.S. Real Interest Rates



to the U.S. as well as the appreciation of the dollar that occurred from 1980 to 1985.

After 1985, however, the relative interest rate levels do not appear to explain Japan's pattern of capital flows as well. As observed earlier, Japan's net long-term capital outflows jumped substantially in 1986 to levels well above its current account surpluses. Short-term capital inflows rose sharply as well. It is precisely at this point in time, however, that U.S. budget deficits began to decline, U.S. interest rates fell, and the dollar began to drop. Other factors must therefore have been at work.

Other Macroeconomic Factors

Exchange rate expectations are another component of the overall rate of return expected by Japanese international portfolio investors and therefore of the relative demand for dollar and yen assets. That Japanese investors continued to desire to hold dollar-denominated foreign assets after 1985 even though the U.S.-Japan interest rate differential declined and the dollar depreciated can be explained by the possibility that expectations of future dollar depreciations were declining. In this instance, the smaller expected decline in the future value of the dollar against the yen would compensate somewhat for the lower relative interest return to holding dollar assets. Indeed, available survey evidence indicates that the expected one-year-ahead depreciation of the dollar against the yen averaged almost 11 percent over the period June 1981 to December 1985, and declined to 6 percent in October 1986 and to almost zero by February 1988.[16]

However, the results of more sophisticated empirical analyses produce mixed results about the sensitivity of Japanese foreign capital demand to exchange rate-adjusted interest differentials. Kawai and Okumura (1988) found Japanese capital outflows depended positively on the exchange rate-adjusted (nominal) interest rate differential between the U.S. and Japan during the period 1982-1983, but not during 1984-1987. Kawai (1989) found stronger evidence that Japanese stock demand for foreign financial assets depended significantly on the interest differential over the entire period 1982-1987. Ueda (1990), however, found that the interest differential explained only a small portion of changes in the foreign securities component of Japanese investment portfolios.

Another possible macroeconomic factor at work includes changes in perceived risk to holding foreign assets. Specifically, the continued accumulation of dollar assets by Japanese investors, by leading to an undesirably large share of dollar assets in their portfolios, may lead them to curtail their demand or to compel larger risk premiums for continuing to hold these assets. The econometric work cited above, using various proxies for risk, has found some evidence that since 1985 Japanese investors have responded more significantly to exchange risk.

There were, in fact, several episodes during which Japanese purchases of U.S. assets declined sharply. In late 1986 and early 1987, for example, anecdotal evidence suggests that Japanese private investors appeared to reduce their holdings of dollar assets markedly in response to high perceived dollar exchange risk. This decline in Japanese private investments was offset in part by an increase in Japanese official intervention. By 1988, however, Japanese private foreign investments resumed at earlier high levels.

While macroeconomic factors, including interest rate differentials, expected exchange rate depreciation, and perceived risk have, to varying degrees, explained aspects of Japan's pattern of capital outflows during the 1980s, these factors do not appear to explain all aspects of Japan's capital transactions. In particular, they do not fully explain the sharp rise in Japanese capital outflows and the emergence of short-term capital inflows beginning in 1986. Nor do they explain the behavior of institutional investors. To explain these features, we turn to microeconomic and institutional factors.

III. Microeconomic Determinants of Capital Outflows

Another major factor underlying the sharp rise in capital outflows in Japan during the 1980s has been the ongoing process of financial market liberalization. There were two aspects of this liberalization process: domestic deregulation steps that led to greater competition for funds among Japanese financial institutions, and the lowering of barriers to the integration of Japanese financial markets with world financial markets.

Domestic interest rate liberalization and the development of open securities markets in Japan beginning in the late 1970s induced depositors to shift their funds from low interest, fixed rate deposits to relatively high-interest, floating rate funds. The deregulation process was accelerated following a May 1984 U.S.-Japan agreement outlining specific actions for the Japanese government to liberalize further its domestic capital market by deregulating interest rates on large denomination deposits.[17]

The continuing liberalization of domestic capital markets increased competition among Japanese financial institutions for funds and accounts. As a result, Japanese

investors' demand increased for more opportunities to obtain higher returns and diversify their portfolios both domestically and internationally. Commercial banks, and other institutions dealing in financial instruments still subject to interest rates restrictions, suffered in their ability to raise funds domestically relative to other intermediaries, such as insurance companies and pension funds, which were able to offer unregulated financial instruments.

The relaxation in the early 1980s of previously stringent government controls on capital flows encouraged Japanese foreign investment. The revision of capital control regulations with the enactment of the Foreign Exchange and Foreign Trade Control Law in December 1980 generally eliminated restrictions on individuals and nonfinancial corporations, but ceiling restrictions on overseas investments by most Japanese financial institutions still remained.[18]

For example, investment trusts typically faced few or no regulatory restrictions on foreign investments.[19] On the other hand, life insurance and other insurance companies were permitted to hold a maximum of 10 percent of their assets in foreign securities (including yen-denominated foreign securities).[20] Most other financial institutions were prohibited from investing abroad. As a result, foreign securities investment by institutional investors was very limited.[21] For example, at the end of 1980 life insurance firms held only 2.7 percent of their total assets in foreign currency assets.

These restrictions were lifted gradually in the early 1980s. Pension trusts were allowed to hold foreign securities up to 10 percent of their assets in 1981. The Postal Life Insurance System (Kampo) was permitted to invest in foreign bonds up to 10 percent of its assets in 1983.[22] In 1984 holdings on foreign securities by certain trust funds were relaxed.

However, high U.S. real interest rates and remaining restrictions on institutional investors' behavior still pent up demand among institutional investors for foreign assets. In 1986, Japan's Ministry of Finance moved to increase the ceilings sharply and greatly expanded the opportunities for financial institutions to invest abroad. The limits on holdings of foreign securities by life insurance companies and pension trusts were raised from 10 to 25 percent of total assets in March 1986 and to 30 percent in August 1986. The ceiling for the Postal Insurance System was raised from 10 percent to 20 percent in the same year. Also in 1986 loan trusts were allowed to invest up to 1 percent in February and later (in June), up to 3 percent of assets in foreign currency bonds.[23]

As the authorities raised the percentage of institutional assets that could be invested, their foreign investment has soared. This trend suggests that much of the rapid growth in Japan's foreign asset holdings during the 1980s, particularly after 1986, in part represents a stock adjustment towards desired levels that for regulatory and other reasons were not previously attainable.

The propensities of insurance firms and trust accounts to invest abroad have been relatively high for several reasons. In particular, they have accumulated large amounts of funds to invest as the aging of the population has increased the demand for insurance and pensions. The elimination of most tax preferences on bank savings accounts in 1989 also induced a rapid shift of funds available to life insurance companies and trust funds. Consequently, over the last ten years there has been an upward trend in the ratio of assets in these institutions relative to the total assets of all Japanese financial institutions.

In addition, these institutions have long investment horizons and a strong preference for assets that bear high interest as a result of accounting rules that have generally limited policy payouts by life insurance companies, in particular, to coupon and dividend earnings from investments.[24] For most of the 1980s Japan's low inflation and accompanying low interest rates made it difficult to obtain high current returns by investing in domestic yen-denominated bonds. Moreover, most of the return on domestic equities came in the form of capital appreciation rather than dividends. This made investment in foreign currency securities with high coupons and dividend yields attractive for policy payoffs.[25] The desire to generate income from interest payments spurred investment in relatively high-interest foreign bonds and high-dividend foreign stocks, particularly in the U.S. for most of the 1980s, but also in Canada, Australia, and the U.K.[26]

Because of limits on allowable long-term foreign exchange exposure, Japanese bank purchases of foreign currency denominated securities have been relatively small in comparison to their total assets. At the same time continuing restrictions on deposit interest rates in Japan reduced the competitiveness of Japanese banks and their ability to raise funds domestically. Consequently, the growth of domestic demand deposits lagged behind loan demand. To supplement their domestic deposits, Japanese banks used borrowings from offshore branches in London and the U.S. It is estimated that in 1987 one half to two-thirds of the funds borrowed abroad by Japanese banks in the U.S. were reloaned to parent banks in Japan (Terrell 1990). This accords with the pattern of significantly high short-term capital inflows to Japan pointed out in Section I.

However, beginning in 1988, continued liberalization of

deposit interest rates payable in the domestic Japanese market increased the share of bank deposits with unregulated rates from less than 20 percent to almost 50 percent in 1989. As a result, foreign borrowing by Japanese banks has diminished significantly.[27]

IV. Future Japanese Capital Outflows

The rise in Japanese capital outflows during most of the 1980s is attributable to a combination of excess domestic savings, U.S. budget developments, and Japanese financial liberalization. The capacity and willingness of Japanese investors to invest more in foreign assets, particularly in the U.S., depends on how prevalent these factors will be in the future. Since 1988 there is evidence of significant decline in Japan's current account surpluses and capital outflows. This decline can be largely attributed to the dramatic rise in domestic investment between 1987 and 1989, combined with a continued fall in savings. However, extrapolating into the future is difficult.

Over the long run, the magnitude of Japan's excess domestic savings will depend significantly on demographic factors affecting Japan's savings rate, on investment trends, and on future Japanese government budget policies. Japan's birth rate is currently among the lowest in the world. It is estimated that over the next 30 years Japan's labor force could decline by as much as 10 million and that the proportion of the population over 65 years old will rise from its current level of 11.5 percent to above 20 percent.[28] The aging of the population is expected to reduce further the level of Japan's saving as the older dissaving population dominates the younger savers. This decline in saving in the long run will tend to reduce Japan's capital outflows.

Future investment and government policy actions are harder to project. Higher interest rates in Japan since 1989 have begun to dampen investment. The dramatic stock market decline in the first half of 1990 presumably is also having an adverse effect. Recent legislation intended to expand future Japanese fiscal spending should tend to reduce capital outflows. On balance, the excess of domestic saving over investment and new Japanese foreign investment should diminish during the 1990s.

The continued liberalization of Japan's financial markets will probably be a less significant factor for capital outflows in the future. The deregulation of Japan's domestic financial markets is continuing. However, barriers to international capital flows are virtually gone. In particular, ceilings on foreign securities holdings of Japanese institutions are no longer binding.

It is difficult, however, to evaluate how much future increase may occur in the desired portfolio share of foreign investments by Japanese investors. Some idea can be obtained by comparing Japanese portfolio share figures with corresponding figures in other countries. It is estimated that 6.5 percent of Japan's total securities were invested abroad in 1988, up from 4 percent in 1983. Even so, Japanese investors remain less diversified than investors in a number of other countries. For example, investors in the U.K. and Germany held 22 and 15 percent, respectively, of their securities abroad. U.S. investors held only 2 percent of their total securities holdings abroad, but this may be attributed to the greater diversification benefits provided by the U.S. economy.[29] This evidence suggests Japanese investors may want to diversify further into foreign assets in the future.

Other available evidence compares the shares of foreign investment in the total assets of private pension funds for 1980 and 1986 in several countries. This evidence indicates that the international diversification of pension funds has proceeded rapidly in the 1980s. In 1986, the U.K. had the highest share (20 percent) followed by Australia (15 percent); Japan held 10 percent. However, all other countries, including Canada, Switzerland, Germany, the U.S., and France, had lower shares than Japan. On the basis of this evidence, it is difficult to expect a continued rapid rise in the share of foreign investment by Japanese institutional investors in coming years. (See Fukao and Okina (1989)). Even without any further increases in the portfolio share of these investments, the magnitude of foreign securities purchases by Japanese institutional and noninstitutional investors is likely to remain high in the near future, as long as these institutions continue to receive new funds for investment.

In the near term, most Japanese investments should continue to be in dollar-denominated assets because of the relative thinness of other markets. Thus the desire of Japanese investors to acquire additional dollar-denominated assets at current yen exchange rates and interest differentials should not be underestimated. Nevertheless, Japanese purchases of U.S. securities likely will grow more slowly in the medium and long term as Japanese investors adjust their portfolios to include more European currency-denominated assets in light of developments in Europe, including the reunification of Germany and ongoing European Community financial reforms. Consequently, the U.S. will face greater global competition for funds than in the past. Accordingly, the terms of external finance for the United States may not be as favorable as in recent years.

NOTES

1. See, for example, Reinhardt (1986).

2. Figures for 1990 are for the first three quarters of the year and are expressed at an annual rate.

3. Japanese international transaction statistics follow a nationality definition of residency. Thus, for example, bonds issued outside Japan by Japanese residents are recorded as capital inflows. In contrast, U.S. international transaction statistics follow a geographic definition of residency. Consequently, they do not define bonds issued outside the U.S. by U.S. residents as capital inflows.

4. In 1986 and 1987 net long-term capital outflows averaged more than 6 percent of GNP.

5. There is some past evidence of a seasonal increase in demand for foreign assets by Japanese investors. Hence the annualized figures for 1990 based on data for the first three quarters of the year may underestimate the figures for the full year.

6. Japan's capital flow figures have become more difficult to interpret as more foreign securities investment takes place through the foreign subsidiaries of Japanese financial institutions, such as life insurance firms and trust banks. These flows are often reported either as direct investment flows or as loans from parent firms in Japan, rather than as securities investment flows. It is estimated that roughly one-half of all transactions by trust banks and one-third of all transactions by life insurance companies are conducted directly with overseas securities companies (Okumura, 1988). Thus some of the rise in gross direct investment and loan outflows from Japan (included in the "Other" category in Charts 2 and 3) in recent years may be due in part to these transactions.

7. A small portion of long-term foreign securities purchases are for bonds issued publicly in Japan by nonresidents, primarily denominated in yen (samurai bonds).

8. In 1988 and 1989, purchases of Japanese bonds also rose sharply, primarily due to a rise in the issuance of external bonds, i.e., yen-denominated or foreign currency-denominated bonds issued outside of Japan by residents.

9. It should be noted that these overseas investment figures from the Ministry of Finance exclude yen-denominated foreign bonds issued by nonresidents in Japan (samurais), but include foreign-currency denominated bonds issued by nonresidents in Tokyo (shogun bonds); the former are included in the Bank of Japan capital outflow statistics contained in earlier charts.

10. A major factor for the surge of investments in the U.S. in 1985 was the abolition in June 1984 of the 30 percent withholding tax on U.S. bonds held by foreign investors.

11. Much of the Eurodollar securities purchased by Japanese investors are in fact issues by Japanese firms. Investment in Eurodollar bonds was particularly facilitated by the liberalization in April 1984 of the conditions under which foreign-currency denominated bonds could be issued by Japanese residents. This allowed Japanese firms to issue them as swap bonds, that is bonds combined with long-term forward currency contracts. The Eurodollar bonds thus issued have been largely purchased by Japanese institutional investors.

Between 1987 and mid-1989 Japanese firms issued nearly $100 million in Eurodollar warrant bonds, which gave investors the right to buy the issuing firm's stock at a set price during a specified period. During the Tokyo stock market boom, warrant bonds provided Japanese firms a relatively inexpensive way to raise money, since investors were willing to accept lower interest payments in exchange for the right to buy stock below market prices.

Most of these warrant issues were in fact repatriated and reported as foreign bond and equity purchases by Japanese investors. Adjusting net foreign securities purchases for warrant repatriation reduces estimates of Japanese investment abroad by $5 to $10 billion each quarter in 1989. See Napier (1989).

12. Net household saving in Japan fell from a peak of 23 percent of disposable income in 1976 to 18 percent in 1980, 16 percent in 1985, and 15 percent in 1989. In 1989 the household saving rate was 12 percent in Germany and France, 6 percent in the U.S., and 5 percent in the U.K. (OECD *Economic Outlook*, June 1990, Table R 12, p. 192.) It should be noted that aggregate private savings include corporate retained earnings in addition to household savings.

13. The corresponding figure in 1989 was 1.87 for the U.S. and 1.28 for West Germany. (*U.S. News and World Report*, December 24, 1990 and *Economist*, January 26, 1991).

14. Glick (1988), using a two-country model of saving and investment behavior, estimates that the rising U.S. budget deficits explained roughly half of the increase in Japan's current account surplus between 1981 and 1986.

15. An alternative explanation sometimes given for the increase in U.S. real interest rates in the early 1980s is that U.S. investment demand increased in response to the more favorable treatment of business fixed investment in the 1981 tax bill. However, the supporting evidence for this view is doubtful. See Frankel (1988).

16. The survey evidence comes from the *Economist*-affiliated *Financial Report*. See Frankel (1988). That the dollar actually depreciated continuously against the yen from its peak in February 1985 through the beginning of 1988 resulted in significant foreign exchange losses for Japanese investors in U.S. assets.

17. The terms of the agreement were released in a document called the "Report of the Joint Working Group on Yen/Dollar Exchange Rate Issues."

18. Evidence of the role of the existence of residual controls on capital outflows from Japan is provided by the existence of a negative differential between the 3-month Gensaki interest rate that could be earned in Tokyo and the 3-month Euroyen interest rate that could be earned offshore in London. See Frankel (1984).

19. One set of funds, Domestic and Foreign Security Funds (Naigaisai) can invest both at home and abroad without any ceilings at all on foreign securities holdings. Other funds are limited to having no more than 50 percent of their total assets in foreign investments. Tokkin funds, in particular, face no restrictions on investing in high-yielding foreign bonds.

20. Foreign currency-denominated domestic bonds and foreign currency deposits were not subject to this limit. Between 1982 and 1986 limitations also applied to allowable increases in the purchase of foreign bonds as a percent of the increase in total assets; these limits were dropped in 1986. At the same time, limits on other foreign currency assets, such as deposits, real estate, and foreign currency denominated domestic bonds issued by Japanese firms (sushi bonds) became subject to the same limits in relation to total assets.

21. One response to the 10 percent limit on the assets of insurance and pension funds that could be invested abroad was investment in foreign currency-denominated bonds issued by Japanese firms abroad (sushi bonds). Such issues were treated as domestic issues in Japan and hence were not subject to the ceilings on foreign investment.

22. This limit did not include yen-denominated foreign bonds in the case of pension trusts. Capital outflow restrictions on the Postal Insurance system and the Postal Savings System are set by the Ministry of Posts and Telecommunications, not by the Ministry of Finance.

23. Investment in either domestic or foreign stocks is not allowed by loan trusts. The foreign investment ceiling for loan trusts was raised to 5 percent in 1989.

24. Capital gains from stock and bond purchases, could not be used for policy payments, but they could be used to offset foreign exchange losses.

25. One way around the restriction on capital gains was through foreign subsidiaries since profits repatriated through subsidiaries are considered income instead of capital gains. As a result, a number of Japanese life insurance firms have established foreign subsidiaries.

26. Because of their relatively low interest rates for most of the 1980s, DM and Swiss franc assets make up a negligible share of foreign securities holdings.

The capital gains restriction has led to charges that Japanese companies have at times played havoc with certain U.S. stocks that pay high dividends, such as utility companies. Japanese firms have often bought and sold foreign stocks simply to obtain the dividend payment, even if it meant taking a capital loss. The companies buy the stock just in time to claim the dividend and then sell it at a capital loss. Because more than one company has been able to claim the dividend on a single share of an American company on the same day, trading in such stocks was often remarkably heavy on the days in question.

27. To some extent short-term borrowing by Japanese institutions may also be associated with strategies to hedge foreign-exchange exposure of long-term foreign asset positions. The decline in foreign borrowing since 1988 may reflect greater use of off-balance sheet hedging strategies involving, for example, forward contracts.

28. *U.S. News and World Report,* December 24, 1990.

29. J.P. Morgan, *World Financial Markets*, November 22, 1989, "Government Bonds and Global Diversification."

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