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## Internationalization of the Yen

In the last several years, Japan has taken steps to deregulate its financial markets, to relax restrictions on inflows and outflows of funds, and to encourage the development of the euroyen market. In addition, Japan has emerged as a leading capital exporter. The net outflow of capital from Japan jumped from $\$ 19$ billion in 1983 to $\$ 84$ billion in 1986. This increase in capital exports is the counterpart of the rise in Japan's current account surplus since the excess of its net purchases of foreign assets must balance with the excess of its receipts from trade exports over imports.

These developments have increased the opportunities for investment in foreign assets by Japanese investors and for yen borrowing and investment by foreigners. Correspondingly, these developments have increased the use of the yen as an international currency, i.e., a currency which corporations regard as desirable to raise capital, international investors to invest in, and exporters and importers to denominate international trade transactions.

Signs of the yen's popularity in recent years include a rise in foreign participation in Japan's financial markets and an increase in yendenominated liabilities issued by foreigners in Japan and in the euromarket. U.S. borrowers, for example, who traditionally have borrowed funds in dollars, now are increasingly considering borrowing in yen by, say, floating euroyen bonds and then converting the proceeds into dollars for domestic use. A host of large U.S. corporate borrowers have chosen to issue bonds in yen rather than dollars to reduce borrowing costs.

This Letter discusses the factors that have led to the increased international use of the yen in both financial and trade transactions.

## International capital controls relaxed

Japan has the world's second biggest stock and
government bond markets after the United States, and is home to many of the world's largest financial institutions. Yet, until the late 1970 s, it had pursued a basic policy of regulating virtually all international capital flows and therefore had only limited links with the rest of the world's financial markets. Through a variety of capital controls, the authorities attempted to dictate the direction and magnitude of financial flows into and out of Japan to achieve both balance of payments financing and exchange rate objectives.

Since 1979, however, Japan's regulatory policy towards international financial transactions has changed substantially. In May 1979, foreigners were granted access for the first time to the gensaki market, a major money market in Japan. This effectively linked Japan's money market with those abroad. A new foreign exchange law was initiated in December 1980 (the Foreign Exchange and Foreign Trade Control Law) that liberalized most capital controls.

In May 1984, in a report by the Joint Working Group on Yen/Dollar Exchange Rate Issues, Japan and the United States announced an agreement to speed up the process of deregulating Japan's capital markets and integrating them into world financial markets. The report outlined specific actions for the Japanese government to liberalize its domestic capital market by deregulating interest rates on large denomination deposits, and to develop the external euroyen bond and banking markets by relaxing eligibility conditions for nonresident issues of euroyen bonds and CDs.

Measures that resulted from this agreement included limited authorization to issue euroyen bonds by Japanese residents in April 1984, and by private nonresidents in June 1984. International organizations, such as the World Bank

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and foreign national governments, had been permitted to do so in the late 1970s.

In 1985, a greater number of Japanese corporations became eligible to issue euroyen bonds abroad by meeting particular capital-ratio financial criteria set by Japan's Ministry of Finance (MOF). Approval was given for a greater variety of euroyen bonds, such as bonds with stock purchase warrants or with currency conversion provisions. In addition to stimulating growth in the size of the market, these changes have permitted greater sophistication and diversity in the issues.

In 1986, the number of firms with access to the euroyen market doubled. The opening of a Japanese offshore banking market in December of last year, through which certain yen loans and deposits can legally escape some taxes and restrictions, represents another channel through which foreign financial institutions may conduct financial transactions in yen.

## Results of relaxation

The opening of Japan's domestic and offshore capital markets has created additional possibilities for international borrowers and lenders for transactions involving the yen. Indeed, the presence of nonresidents in Japan's financial market and the yen's role in international financial markets have grown considerably.

Foreign investors have become important participants in Japan's gensaki (bond repurchase) and CD markets, in which some three-fourths of Japan's open money market assets are traded. Foreigners hold more than 10 percent of total gensaki and CDs outstanding. As a result, there now exists a closer relation between rates in these markets and those in international markets.

Nonresidents have also become greater participants in the Japanese stock market. It is estimated that they account for 10-15 percent of total stock transactions, up from less than 5 percent prior to 1980.

The volume of foreign bonds and euroyen bonds issued by foreign borrowers is also up substan-
tially as foreigners have sought to tap Japan as a source of capital and as a means to reduce borrowing costs. Since 1982, the annual number of yen-denomination foreign bonds has ranged from 60 to 70 issues, up from only 40 issues in 1981 and 14 in 1980. Between 1980 and 1986, the dollar value of these issues increased fivefold. From 1977, when the first euroyen bond was issued, until September 1984, only 29 such bonds were issued. Following the December 1984 liberalization that allowed nonresidents to issue euroyen bonds, the number jumped to 138 issues in 1985 and even higher in 1986. Correspondingly, the share of euroyen bonds in total eurobond issues rose from less than 1 percent prior to 1984 to almost 10 percent in 1986. This puts the yen behind eurodollar issues, which still maintain a dominant position with a 60 percent share, and ahead of the German mark with 9 percent, and the pound with 6 percent.

The rise in euroyen issues is also a reflection of the relative cost of yen borrowings. Many U.S. borrowers, who traditionally have borrowed funds in dollars, perceive they can lower costs by borrowing in yen because they can float euroyen bonds and then convert the proceeds into dollars for domestic use.

The relative cost of borrowing in dollars or yen depends on the interest rate differential between dollar and yen-denominated loans as well as on possible changes in the dollar-yen exchange rate between the time the funds are borrowed and the time they must be repaid. A depreciation in the dollar over this period effectively raises the cost to borrowing in yen by increasing the amount of dollars needed to purchase the yen at the time of repayment.

With Japanese interest rates low relative to U.S. rates in recent years, many borrowers have regarded borrowing in yen as very attractive. However, the possibility that the dollar may depreciate further implies that the additional borrowing opportunities made possible by the internationalization of the yen do not come without risk. Efforts by financial market participants to hedge against such currency losses is
evidenced by the rise in the number of yen futures contracts traded on the International Monetary Market in Chicago from just 1790 in 1975 to 575,000 in 1980, and 2.4 million in 1985.

Corresponding to the increased use of the yen in private financial transactions is the rise in holdings of the yen by central banks. Recent statistics indicate that central banks hold 8 percent of their official reserves in yen, double the percentage three years ago. This rise is partly the result of the yen's rise in value against the dollar, but also is due to the increased use of the yen in private transactions. While this leaves the yen well below the 65 percent of central bank reserves in dollars and the 16 percent held in German marks, it is triple the share of any other currency, including the British pound.

## International trade transactions

While substantial progress has been made in the use of the yen in international financial transactions in the last several years, the yen still remains an underused currency in international trade transactions when compared to the size of Japan's economy in the world economy. With the recent appreciation of the dollar, Japan's GNP, when measured in dollar terms, is now over one-half of that of the United States. Yet, in 1985, only 39 percent of Japan's exports and a mere 7 percent of its imports were invoiced in yen. In contrast, for most industrial countries, the ratios of exports and imports invoiced in their domestic currencies are roughly 60 and 30 percent, respectively.

The yen's low use in international trade transactions in part reflects Japan's trade structure. The yen-invoiced portion of Japanese imports tends to be relatively small because of the high share of primary products and commodities, such as
energy resources, foodstuffs, and industrial raw materials, that are traditionally traded in dollars. The yen's use is greater in exports of products such as machinery, for which Japanese products enjoy strong international competitiveness, and in exports to China and Southeast Asia. In addition, the fact that Japan does not belong to a regional trading bloc, such as the European Economic Community, also may contribute to the smaller role of the yen in international trade.

Although low by international standards, the 34 percent share of exports billed in yen in 1985 nevertheless represents a dramatic increase from the levels of 1 percent in 1975 and 29 percent in 1980. In the past, many Japanese firms that depended heavily on imports of primary products, such as steel, have often preferred to export by invoicing in dollars to avoid exchange risk between the cost of raw materials and revenue from exports. However, an increasing number of Japanese firms are expanding their production bases into overseas markets. Growing trade in industrial parts and finished products between parent companies and their overseas subsidiaries should raise the yen-invoiced portion of Japanese trade. The development of a recently established bank acceptance market in Japan may help as well.

## Conclusions

The use of the yen in international financial transactions has increased dramatically in recent years as a result of Japan's relaxation of international capital controls. The internationalization of the yen has occurred despite the yen's continuing underuse in international merchandise trade. The yen's rise signals the growing importance of international finance in determining the international importance of a currency.

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BANKING DATA-TWELFTH FEDERAL RESERVE DISTRICT
(Dollar amounts in millions)

| Selected Assets and Liabilities Large Commercial Banks | Amount Outstanding 6/24/87 | $\begin{aligned} & \text { Change } \\ & \text { from } \\ & 6 / 17 / 87 \\ & \hline \end{aligned}$ |  | Change Dollar | 6/25/86 Percent ${ }^{7}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Loans, Leases and Investments ${ }^{1} 2$ | 205,153 | - 1,147 |  | 6,389 | 3.1 |
| Loans and Leases ${ }^{16}$ | 182,052 | - 797 |  | 1,000 | 0.6 |
| Commercial and Industrial | 52,701 | - 175 |  | 279 | 0.5 |
| Real estate | 69,257 | 180 |  | 2,812 | 4.2 |
| Loans to Individuals | 36,714 | 79 | - | 4,490 | - 10.8 |
| Leases | 5,396 | 4 | - | 191 | - 3.4 |
| U.S. Treasury and Agency Securities ${ }^{2}$ | 15,870 | 330 |  | 5,279 | 49.8 |
| Other Securities ${ }^{2}$ | 7,235 | 16 | - | 352 | - 4.6 |
| Total Deposits | 203,611 | - 3,436 |  | 1,361 | 0.6 |
| Demand Deposits | 50,237 | - 2,313 |  | 1,241 | 2.5 |
| Demand Deposits Adjusted ${ }^{3}$ | 35,140 | - 1,854 |  | 1,135 | 3.3 |
| Other Transaction Balances ${ }^{4}$ | 18,947 | - 566 |  | 3,072 | 19.3 |
| Total Non-Transaction Balances ${ }^{6}$ | 134,427 | 557 | - | 2,952 | - 2.1 |
| Money Market Deposit |  |  |  |  |  |
| Accounts-Total | 44,393 | 684 | - | 2,177 | - 4.6 |
| Time Deposits in Amounts of $\$ 100,000$ or more | 32,286 | 129 | - | 4,093 | - 11.2 |
| Other Liabilities for Borrowed Money 5 | 24,142 | 1,672 | 94 |  | 0.3 |
| Two Week Averages of Daily Figures | Period ended 6/15/87 | Period ended 6/1/87 |  |  |  |
| Reserve Position, All Reporting Banks |  |  |  |  |  |
| Excess Reserves (+)/Deficiency ( - ) | 51 | 56 |  |  |  |
| Borrowings | 8 | 52 |  |  |  |
| Net free reserves ( + //Net borrowed( - ) | 44 | 4 |  |  |  |

1 Includes loss reserves, unearned income, excludes interbank loans
2 Excludes trading account securities
3 Excludes U.S. government and depository institution deposits and cash items
4 ATS, NOW, Super NOW and savings accounts with telephone transfers
5 Includes borrowing via FRB, TT\&L notes, Fed Funds, RPs and other sources
6 Includes items not shown separately
7 Annualized percent change

