# Japan's Financial Intermediary and the Role of the Yen in East Asia 

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# JAPAN'S FINANCIAL INTERMEDIARY AND THE ROLE OF THE YEN IN EAST ASIA 

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#### Abstract

This paper investigates whether the recent increase in financial interdependence between Japan and East Asia has served to facilitate the international use of the yen in the East Asian region, by investigating not only the changing patterns of capital flows between Japan and the East Asian region but also the currency denomination of these flows. Japan's balance of payments with the East Asian region are also examined to clarify whether Japan has played a role of financial intermediary in terms of the yen to the region. We reveal that the use of the yen in financial transactions is in fact far smaller than the casual observation, and discuss what impedes the yen-denominated transactions in the East Asian region. We emphasize that the further use of the yen in trade transactions is particularly important for the yen internationalization in the region, by analogy with the internationalization of the Deutsche Mark.


JEL Classification: F21, F33, F36.
Keywords: International financial intermediary, internationalization of the yen, East Asia

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## 1. INTRODUCTION

This paper investigates whether the recent increase in financial interdependence between Japan and East Asia has served to facilitate the international use of the yen in the East Asian region. It is widely known that Japan has increased trade and investment in the East Asian economies from the mid-1980s and capital flows between Japan and these economies expanded substantially. There have been numerous articles on financial integration in the East Asian region focusing on such increasing capital flows. ${ }^{1}$ However, it is still unclear whether or not the increase in Japan's financial influence has facilitated the use of the yen for financial transactions in East Asia. Interestingly, surprisingly few studies have so far been made at this question, whereas much more attention has been given to the internationalization of the yen over the last few decades.

To tackle this question, we investigate not only the changing patterns of capital flows between Japan and the East Asian region but also the currency denomination of these flows relying on the available data and relevant statistics. ${ }^{2}$ Japan's balance of payments with the East Asian region are also examined to clarify whether Japan has played a role of financial intermediary in terms of the yen to the region. This approach will reveal that the use of the yen in financial transactions is in fact far smaller than the casual observation. Finally we will discuss what impedes the further use of the yen for financial transactions in the East Asian region.

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## 2. LITERATURE SURVEY

Over the past few decades, a considerable number of studies have been made on the financial integration in the Asian-Pacific region. Chinn and Frankel (1994), for example, have examined the co-movements of interest rates in Asia to clarify whether Japan has gained more financial influence in Asia than the United States. Phylaktis (1997) has analyzed the co-movements of interest rates more rigorously by using the cointegration technique. These works have shown that the East Asian economies have increased the degree of financial market integration with Japan from the 1980s, whereas the United States has played a more dominant role in the region than Japan. To put in another way, the existing literature implies that although Japan has not overtaken the United States in dominating the regional financial markets, the financial influence of the former has increased steadily.

It must be noted, however, that although the above line of works is evidently important in evaluating the Japan's financial influence in East Asia, it is not necessarily clear whether or not the increase in Japan's financial influence has to do with the financial aspects of the yen internationalization.

More relevant approach is to examine the role of the Japan's financial intermediary by investigating currency denomination of capital flows between Japan and East Asia. For example, it is widely recognized that Japan emerged as the world's largest creditor in the 1980s. ${ }^{3}$ Black (1990) have argued that Japan's external position is analogous to that of the United States in the postwar period as well as the United Kingdom in the nineteenth and early twentieth centuries as a world banker. By critically inquiring into the Black's argument, Tavlas and Ozeki (1992) have examined the extent

[^2]to which Japan's position as an exporter of long-term capital (on a net basis) has served to facilitate the international use of the yen.

Tavlas and Ozeki have emphasized the distinction between nations that serve as international financial intermediaries and those that function as world bankers. Specifically, a country is regarded as a world banker only if its international financial intermediation enhances the supply of world liquidity denominated in its own currency; otherwise, the country acts just as an international financial intermediary. Based on this distinction, they have concluded that Japan's financial intermediation was not conducted predominantly in terms of the yen, though Japan channeled funds to the rest of the world in terms of the foreign currency. Japanese long-term capital outflows in the 1980s were concentrated in securities and a large portion of these capital outflows were denominated in U.S. dollars (Tavlas and Ozeki, 1992). In this sense, Japan has not acted as a world banker: Japan's financial intermediation provided funds denominated in not the yen but other currencies to the rest of the world, which was not conducive to the international use of the yen.

Their conclusion brings us to the question as to whether it is true even for Japan's capital flows to the East Asian economies. Tavlas and Ozeki have also stated that while the processes underlying the emergence of sterling and the U.S. dollar as international currencies appear to be less significant for the yen, an exception is the Japan's role of international financial intermediary with respect to the Asian developing economies (Tavlas and Ozeki, 1992, p.30). More specifically, they suggest the possibility that Japan will play a role of international financial intermediary in terms of the yen in the East Asian region. It is worthwhile to check the validity of this argument by examining the currency denomination of capital flows between Japan and the East Asian economies.

In the next section, we examine the changing patterns of capital flows between Japan and the East Asian region. We also examine the relationship between Japan's capital flows and the internationalization of the yen, by making a close investigation of currency denomination of these capital flows. It must be noted that a major obstacle to this analysis is that the data on currency denomination of financial transactions in East Asia is very limited. Relying on the available data and using relevant statistics, we attempt to reveal to what extent the yen-denominate financial transactions have grown in East Asia.

## 3 CAPITAL FLOWS BETWEEN JAPAN AND THE EAST ASIAN FINANCIAL CENTERS

### 3.1 BIS Reporting Banks' Claims on the East Asian Economies

Let us first discuss the role of the yen in East Asian financial transactions. A good starting point is to observe the Bank for International Settlements (BIS) data (Table 1), though somewhat old, which shows the changes in not only the composition of BIS reporting banks' claims on the East Asian economies but also that of currency denomination from the end-1983 to the end-1991. BIS (1992) has pointed out two major changes during the period: (i) an increase in the share booked in Asia (including Japan, Hong Kong and Singapore) and (ii) an expansion in the relative importance of outstanding positions denominated in the yen.

We first notice that the share of Asia by location increased in all economies except Indonesia and the Philippines, indicating that BIS reporting banks located in Asia increased the claims on the East Asian economies. More noteworthy is that the share of the yen by currency (i.e., the share of the yen-denominated claims in the total BIS
reporting banks' claims) also rose in all economies, especially Hong Kong and Singapore. In Hong Kong, the share of Asia by location increased from 38.2 percent in the end-1983 to 79.8 percent in the end-1991 and the share of the yen rose sharply from 4.6 percent to 56.9 percent during the same period. We also observe a similar increase in the share of both Asia and the yen in Singapore: the share of Asia rose from 43.6 percent to 63.2 percent and the share of the yen from 2.9 percent to 50.3 percent during that period. The share of the yen in both Hong Kong and Singapore in the end-1991 is far larger than the corresponding share in other East Asian economies (12-27 percent). Does this imply the significant increase in the role of the yen in the East Asian economies, especially Hong Kong and Singapore?

We must note, however, that this casual observation does not necessarily reveal the role of the yen in the East Asian economies for two reasons. First, the figures of outstanding claims may be overestimated due to the appreciation of the yen against the U.S. dollar during the period. According to the BIS, about 80 percent of the expansion in the yen claims on Korea from the end-1983 to the end-1991 can be explained by the exchange rate effects resulting from the yen appreciation against the U.S. dollar. ${ }^{4}$

Second, the actual increase in the yen cannot be fully captured by the BIS data (Table 1), because the currency composition data includes the positions of banks in industrial reporting countries only and loans to the East Asian economies booked out of Hong Kong and Singapore are excluded from the data. In other words, Table 1 does not indicate whether Hong Kong and Singapore increased yen-denominated loans to other East Asian economies. BIS has stated, however, "a considerable share of new loans to East Asian countries booked out of Hong Kong and Singapore ... has probably been

[^3]denominated in yen" (BIS, 1992, p.24). To check the validity of the BIS's presumption, we must investigate currency denomination of the bank loans to the East Asian economies via Hong Kong and Singapore as well as Japan's capital flows to the two financial centers.

### 3.2 Capital Flows between Japan and Hong Kong

As reported in Table 1, the amount outstanding of banks' claims by the Asian BIS reporting financial centers increased substantially in Hong Kong and Singapore. This increase is also confirmed in Table 2 that shows that Hong Kong financial institutions expanded liabilities and claims dramatically with respect to the Asia and Pacific region from 1986, 80 percent or more of which were accounted for by Japan. ${ }^{5}$ Following the opening of the Japan Offshore Market (JOM) in December 1986, banks in Hong Kong and Singapore became heavily involved in two-way transactions with Japan. ${ }^{6}$

Table 3 shows that the JOM grew rapidly after its establishment, though the amount outstanding of total assets and liabilities has decreased considerably from 1995. The data on assets and liabilities of the JOM indicate the following three features. First, as for types of currency, the yen-denominated position outweighs the foreign currency's counterpart from 1991 in total assets and the former is somewhat smaller than the latter in the total liabilities over the period except 1995 and 1999. Second, regarding types of transactions, inter-bank transactions (deposits/call loans and deposits/call money) and inter-office transactions account for a significant portion of total assets and liabilities.

[^4]Third, the JOM supplies a large amount of the yen almost unilaterally through inter-office accounts.

Such a rapid growth of assets and liabilities is related to the regulatory restrictions in the JOM. ${ }^{7}$ First, nonresidents as well as offshore accounts of resident banks are eligible counter-parties in the market, and flows of funds from offshore to onshore accounts are restricted: funds were in principle not allowed to be channeled from offshore to onshore accounts. ${ }^{8}$ Second, banks' domestic lending (yen-lending by domestic offices) was regulated by the informal guidelines, the "window guidance" policy of the Bank of Japan (BOJ). This BOJ policy was neither applied to Euro-yen loans to residents by foreign branches of Japanese banks nor to foreign currency loans by domestic offices. Therefore, to circumvent such financial regulations in the domestic market, Japanese banks remit funds raised in the JOM to their foreign branches in the Asian financial centers (Hong Kong and Singapore) through offshore inter-office accounts and then reborrow these funds. In other words, Japanese banks use their foreign branches in Hong Kong and Singapore as "relay stations" for "round-tripped" transactions to avoid domestic regulations, which contributes to a remarkable increase in cross-border transactions between Japan and Asian offshore centers. ${ }^{9}$

The next question is whether or not Hong Kong financial institutions use the yendenominated funds for their external loans to other East Asian economies after procuring the yen funds from Japan. Table 4 shows the external claims of Hong Kong financial institutions on non-bank customers. We can easily observe that Hong Kong financial institutions expanded the external assets to non-bank customers substantially from 1987

[^5]and a 70 percent or more of total external claims were directed to Japan from 1990, which is consistent with the expansion of the round-tripped transactions mentioned above.

The Hong Kong data does not report the currency composition of external loans by Hong Kong financial institutions. However, we can infer from other data that a large portion of the Hong Kong external loans to Japanese non-bank customers is denominated in the yen. According to Table 5 that presents the data on Euro-yen loans by overseas branches of Japanese foreign exchange banks, Euro-yen loans to residents (so-called, Euro-yen impact loans) expanded significantly from 1986, particularly from 1989, when medium/long-term Euro-yen loans to residents were liberalized. Figure 1 also shows close co-movements between Hong Kong external assets to non-bank customers in Japan and Euro-yen loans to residents by Japanese overseas branches, which is another supporting evidence of the round-tripped transactions between Japan and Hong Kong. ${ }^{10}$

We must also note that Hong Kong external claims on non-bank customers in the East Asian economies have grown very moderately and its amount outstanding is substantially small compared to claims on Japan (Table 4), which implies that the yendenominated loans via Hong Kong to the East Asian economies are very small. Such a low level of yen-loans to the East Asian economies can be confirmed by the substantial decrease in amount outstanding of Euro-yen loans to non-residents from 1989, though the latter slightly increased from 1996 (Table 5).

Recently, Hong Kong inter-bank liabilities and external claims on non-bank customers have shrunk substantially, a decline by 61.9 percent in inter-bank liabilities and by 70.5 percent in external claims on non-bank sectors from the end-1995 to the end2000, respectively (calculated from Tables 2 and 4). Although the transfer of sovereignty

[^6]in July 1997 and the Asian currency crisis may partly affect the decline of the international banking business of Hong Kong, it is Japan that has mainly contributed to this contraction: Japan accounted for 83.5 percent and 95.8 percent of decrease in interbank liabilities and external claims on non-bank sectors, respectively during that period (calculated from Tables 2 and 4). The significant decline of offshore yen loans to Japan via Hong Kong reflects not only the weakness of loan demand of Japanese non-bank sectors but also the drive by Japanese banks to improve their capital ratios (BIS, 1999).

In short, the rise (from the mid-1980s to the early 1990s) and fall (from the mid1990s) of the Japan's position in Asian offshore centers (Hong Kong and Singapore) can be explained by the round-tripped operations of Japanese banks. In other words, the increase in capital flows between Japan and Asian financial centers just reflects the extension of the domestic financial intermediation of the Japanese banking systems. ${ }^{11}$ Hong Kong, and probably Singapore, plays a role of relay stations for inter-bank transactions of Japanese banks with their overseas branches, and yen-loans to the East Asian economies have not been facilitated via Hong Kong and Singapore.

[^7]
## 4. JAPAN'S BALANCE OF PAYMENTS VIS-À-VIS THE EAST ASIAN REGION

As discussed in the previous section, the round-tripped operations of Japanese banks via the Asian financial centers can be interpreted as just an expansion of the domestic financial intermediation of the Japanese banking systems. Such unique capital flows can also be observed in the Japan's balance of payments data as well. ${ }^{12}$

Table 6 shows the Japan's current and long-term capital account with respect to Southeast Asia from 1987 to $1995 .{ }^{13}$ The first thing to note is that Japan ran a large amount of current account surplus to the Southeast Asian economies. Second and more interesting to note is that Japan was a net importer of long-term capital from 1990 to 1992: US $\$ 12$-39 billion of net inflows in the total long-term capital account in each year. This contrasts markedly with the balance of payments pattern of the past key-currency countries, the United Kingdom and the United States, which had played a role of international financial intermediary in terms of their own currency as an exporter of longterm capital. Such a large amount of Japan's long-term capital inflows during the period is mainly due to a considerable increase in loan liabilities, which reflects the increase in medium-term Euro-yen loans to residents by overseas branches of Japanese banks, as discussed in the previous section. Panels B and C of Table 6 also show that this large inflow of loan liabilities came from the Asian NIEs, which is an additional evidence for the offshore loans to Japanese non-bank customers via Hong Kong and Singapore. From 1993, Japan's net long-term capital account turned into deficit again, which corresponds to the contraction of long-term Euro-yen loans to residents from 1993 (Table 5).

[^8]Let us next focus on the asset side of Japan's long-term capital account, which indicates that there were certain amounts of capital outflows to Southeast Asia over the period. First, direct investment is one of the main sources of Japan's capital outflows to the Southeast Asian economies. Japan expanded direct investments in these economies from the mid-1980s, which promoted trade between two regions and the active operations of Japanese manufacturing affiliates in the region. The implication of this increase in direct investment for the use of the yen is closely related to the trade aspects of the yen internationalization and will be discussed more in the next section.

Second, loan assets are the other main source of capital flows to the Southeast Asian economies. Japan registered US\$3.7-5.8 billion of loan assets from 1987 to 1995 except for 1992, a large portion of which is mainly directed to other Asian economies (Table 6). The loan assets can be divided into the two main categories: one is ODA loans (yen loans or "en shakkan" in Japanese) ${ }^{14}$ and the other is medium/long-term external bank loans such as syndicated loans.

The Asian economies are main recipients of ODA loans: in the 1996 fiscal year, 76.6 percent of total Japan's ODA loans are directed to the Asian economies. ${ }^{15}$ Data on currency composition of external debts (public or publicly guaranteed debts) in the selected Asian economies (Table 7) indicates that yen-denominated debts increased substantially in the 1980s, and the yen-denominated debts accounted for the largest share in the total external debts in 1992 (Iwami, 1995, Table 5-13). This high share of yen-

[^9]denominated debts may reflect the fact that these countries are main recipients of Japan's ODA. ${ }^{16}$

Table 8 shows the regional breakdown of Japan's medium/long-term external bank loans. First, Japan expanded foreign currency denominated loans to Asia steadily from 1985 to 1997 except for 1996. Second, yen-denominated loans to Asia declined considerably from the peak of US $\$ 2,576$ billion in 1989 to US $\$ 1,304$ billion in 1996, though it slightly increased in 1997. Therefore, we can state that Japan's medium/longterm external bank loans did not contribute to the use of the yen in the Asian economies during the 1990s.

Outflows of securities assets are relatively small compared to direct investments and loans. In the context of the yen internationalization, we are interested in to what extent the East Asian economies procure yen funds by issuing yen-denominated bonds. Security assets in Table 6 covers net acquisition of foreign securities (whether yendenominated or not) by Japanese residents only. Therefore, a relatively small amount of security assets may suggest that the East Asian economies did not procure a large amount of funds through yen-denominated foreign bond issues.

Relying on other sources, let us investigate the issues of yen-denominated bonds (both Euro-yen bonds and yen-denominated foreign bonds). As for the global issue of yen-denominated international bonds, Table 9 shows that while yen-denominated bond issues were negligible in the early 1980s, the issues increased substantially from the mid1980s and reached 14.8 percent of total international bond issues in 1987. The share of

[^10]international yen bond increased again to 18.3 percent in 1994, but thereafter declined to 5.5 percent in 1997.

Table 10, though somewhat old, shows the currency composition of the international bond issues by the East Asian economies. First, for Euro-bonds, they issued a large amount of the U.S. dollar denominated bonds and yen-denominated bond issues were quite small. On the other hand, yen-denominated bond issues were relatively large in the case of foreign bond issues. We must note that from 1993 the weight of Euro-bond issues increased dramatically compared to foreign bond issues, and the U.S. dollar denominated bonds accounted for 90 percent or more of the total Euro-bond issues. Even in the total issues of international bonds (the sum of Euro and foreign bonds), the U.S. dollar accounted for $74-82$ percent of the total bond issues and the share of yendenominated bonds was under 20 percent from 1993. Therefore, we can conclude that a large portion of international bond issues by the East Asian economies are accounted for by the U.S. dollar.

We must also note that, despite a large amount of U.S. dollar denominated bond issues, the issues of yen-denominated foreign bonds do play a certain role of providing yen funds to the East Asian economies. Table 9 shows, however, that the share of yendenominated bonds in the global international bond issues declined substantially in 1997, which might reflect that some East Asian economies had difficulty in procuring funds through international bonds after the Asian currency crisis. This in turn implies that the share of the yen-denominated bond issues is likely to increase to some extent again when the economies recover from severe economic difficulties.

The above observation reveals that there were steady provisions of Japan's longterm capital to Southeast Asia through direct investment and loans. It must be emphasized, however, that the absolute amount of asset outflows of total long-term
capital was far smaller than that of current account surplus (Table 6), which implies that even if we leave the long-term Euro-yen loans to residents out of consideration, we cannot say that Japan has fully played a role of financial intermediary in terms of the yen to the East Asian region.

Turning now to the recent data on Japan's balance of payments. The BOJ began to publish the new version of the balance of payments statistics that differs considerably from the pre-1995 version statistics, and the long-term capital account is not separately reported in the data on Japan's regional balance of payments. Table 11 (Panel A) shows that Japan recently registered a large amount of net capital outflows (net capital and financial account) to Asia from 1996 to 1998, but again recorded net capital inflows in 1999 and 2000. How do we interpret this fluctuation of capital flows from the viewpoint of international financial intermediary?

The net capital and financial account from 1996 also reflects movements of the other investment category. As shown in Table 11 (Panel B), Japan registered a large amount of loan assets to Asia in 1997, which contributed mainly to the net capital and financial account deficit. The reason is that Japanese banks remitted a large amount of yen funds to their foreign branches that suffered from a difficulty in procuring foreign currencies owing to the so-called "Japan premium," and the latter converted yen funds remitted by the former into the foreign currencies through derivative transactions (e.g., foreign exchange swap) with foreign banks. ${ }^{17}$ In 1998, while registering a certain amount of asset inflows in debt securities and loans, Japan recorded far larger liabilities outflows in these categories. Such capital outflows were mainly due to a large

[^11]repayment of residents for Euro-yen impact loans. BIS (1999) has pointed out that the "weakness of loan demand in Japan and the drive by Japanese banks to improve their capital ratios led to a decline in the amount of offshore yen loans to corporations in Japan." For example, in the loan category vis-à-vis Hong Kong, Japan registered a substantial amount of asset inflows on one hand and a large volume of liabilities outflows on the other hand, which is consistent with a sharp contraction of offshore loans to Japan's domestic residents via Hong Kong. Japan's capital and financial flows with East Asia in recent years mainly reflect the other investment category and do not show any evidence for the increase in the role of the yen in the East Asian region.

In summary, despite an increase in capital flows between Japan and the East Asian region from the mid-1980s, Japan has not expanded the yen-denominated loans to the region. Rather, Japan expanded the round-tripped transactions with the Hong Kong and Singapore financial centers to circumvent the domestic financial regulations. Recent increase in capital flows to the East Asian economies results from the weak demand for loans by Japanese residents as well as the remittance of yen funds to foreign branches suffering from the Japan premium. It is hard to say that Japan has played a role of financial intermediary to the East Asian economies in terms of the yen.

## 5. FACTORS IN IMPEDING THE INTERNATIONALIZATION OF THE YEN

As we have discussed so far, it is hard to say that Japan has played a role of international financial intermediary in terms of the yen to the East Asian economies. Yen-denominated financial transactions are in fact far smaller in the East Asian region than the casual observation. Such limited use of the yen in East Asian financial transactions is typically attributed to (i) the exchange rate policy of the East Asian
economies and (ii) the dominant role of the U.S. dollar in the East Asian foreign exchange rate market.

De facto U.S. Dollar Pegged Exchange Rate System. Most East Asian economies had adopted the managed floating system at least up to the financial crisis, but in fact attempted to stabilize the exchange rate vis-à-vis the U.S. dollar. ${ }^{18}$ To the extent that their currencies are effectively pegged to the U.S. dollar, the East Asian economies can avoid exchange rate risks by conducting U.S. dollar denominated transaction. It must be noted that after the crisis some economies started to adopt a more flexible exchange rate system, indicating they are exposed more to exchange rate risks when conducting U.S. dollar denominated transactions. However, recent studies reveal that these economies have restored the linkage of their currencies with the U.S. dollar. ${ }^{19}$

The Vehicle Role of the U.S. Dollar in Foreign Exchange Markets. Table 12 (Panel A) compares currency compositions of foreign exchange trading in the 10 largest markets in April 1998. We notice that the U.S. dollar accounts for by far the largest share: the share of the U.S. dollar was over 80 percent in all countries except Netherlands and more than 90 percent in Asian economies (Japan, Singapore and Hong Kong), Australia, and the United States. Table 12 (Panel B) presents currency compositions of foreign exchange trading in Asian major markets. First, the U.S. dollar share was over 90 percent from 1992 to 1998 in all markets. Second, the share of the yen was almost the same as that of the Deutsche Mark, though the former was slightly larger than the latter in Singapore and Hong Kong markets in 1998. It is hard to say that the yen plays a far greater role in foreign exchange trading in these markets than the Deutsche Mark.

[^12]The U.S. dollar accounts for a dominant share in foreign exchange trading in world markets, especially in Asian-Pacific markets, which indicates that the U.S. dollar plays a greater role in mediating exchanges of various currencies derived from international trade and capital transactions. This mediating role, i.e., the so-called "vehicle currency" role, of the U.S. dollar is based on low transaction costs due to the economies of scale. ${ }^{20}$ Since the volume of U.S. dollar transactions are substantially large, and hence, the transaction costs of the U.S. dollar is very low, it is more advantageous to convert one currency into another through the U.S. dollar than to exchange two currencies directly. To put it another way, the larger the transaction volume of the U.S. dollar, the smaller its transaction costs would be, and this relationship develops like a virtuous circle. Since international trade and capital transactions are typically related closely to foreign exchange trading, the dominant position of the U.S. dollar as an international currency is hard to be eroded. In contrast, there is no evidence that the yen plays a role of a vehicle currency, even in Asia-Pacific markets.

The Yen as a Trade Invoicing Currency. Both the nominal anchor role and the vehicle role of the U.S. dollar are clearly important factor in promoting the U.S. dollar denominated transactions. However, the role of trade invoicing currency is particularly important in considering the further use of the yen in the East Asian region. It is widely recognized that the U.S. dollar is generally used in external trade of the East Asian economies and also that the yen-invoiced transactions are relatively large only in their trade with Japan. ${ }^{21}$ The limited use of the yen in East Asian trade contrasts markedly with the case of Deutsche Mark.

[^13]Table 13 reports the 1989 data on currency invoicing of Germany's exports and imports by region as well as the corresponding data for Japan as of 1989 and March 1998. We must note that 80 percent of Germany's exports to the EU countries were invoiced in Deutsche Mark in 1989, while the U.S. dollar invoiced ratio was still higher than the yeninvoiced ratio in Japan's exports to Southeast Asia in March 1998. More noteworthy is that 60 percent of Germany's imports from the EU countries were invoiced in Deutsche Mark, which contrasts sharply with the low level of Japan's yen-invoiced imports from Southeast Asia. This difference in currency invoicing patterns is particularly important in considering the internationalization of the currency. It is typically agreed that the Deutsche Mark actually played the key currency role in the European countries, and also that the key role of the Deutsche Mark rested on the European economy being independent of the U.S. dollar as well as the Untied States. ${ }^{22}$ It must be emphasized here that, in contrast to the case of the Deutsche Mark, the use of the yen is very small in Japan's exports to and imports from Southeast Asia.

The relatively low level of yen-invoiced exports to Southeast Asia has to do with the pricing strategy of Japanese exporting firms. The literature on the PTM behavior of German exporters shows the high pass-through rate in exports to the United States, reflecting the Germany's export competitiveness against the United States. ${ }^{23}$ This implies that it is necessary for Japanese exporters to improve their export competitiveness for the further use of the yen in East Asia. However, as Sato $(1999,2001)$ shows, recent increase in Japan's trade with East Asia has been promoted by the electronics industry, especially the semiconductor and IC industry that has a strong tendency to invoice its

[^14]exports in U.S. dollars even when its export destination is East Asia. In addition, the electronics industry accounts for the largest share in East Asian external exports and imports, and the East Asian electronics exports are directed mainly to the United States. ${ }^{24}$ Given the large dependence on the U.S. markets, it is hard to expect the yen to be used more widely in the East Asian region. For the further internationalization of the yen, it seems to be crucial that Japan expands its imports from the East Asian countries and becomes more important export market for them than the United States.

## 6. CONCLUDING REMARKS

For the past few decades, the yen internationalization has attracted a great deal of attention, and yen-denominated transactions increased considerably in the 1980s. Such increase in the use of the yen went hand in hand with the deregulation of the financial markets, growth of Japanese economic size, active investment and trade of Japanese firms, and so on. In the 1990s, however, the use of the yen has not increased, or rather decreased, even though the economic interdependence between Japan and East Asia has deepened significantly. This slowdown of the internationalization is generally attributed to the Japan's prolonged recession after the burst of the bubble economy. Specifically, Japan has suffered from prolonged recession and the government debts increased very rapidly, which appears to be eroding the confidence in the soundness of the Japan's economic policy. In addition, Japanese financial institutions have had a difficulty in disposing of huge amounts of non-performing loans (NPLs), and the delay in clearing off NPLs will continue to prevent the international operations (such as investing and lending

[^15]activities in East Asia) of the Japanese financial institutions. Furthermore, the delay in financial liberalization process is also typically pointed out as a factor in impeding the internationalization of the yen: the Japan's financial liberalization process lags far behind the United States and United Kingdom, and there still remain visible or invisible regulations on domestic financial and capital markets.

Although most East Asian currencies had in effect been pegged to the U.S. dollar, some East Asian economies started to adopt a more flexible exchange rate system after the Asian currency crisis. In addition, Japan was expected to respond actively to the funding needs of Asian economies suffering from economic difficulties caused by the financial turmoil, and a certain amount of financial assistance were in practice implemented under the New Miyazawa Initiative. This kind of financial assistance scheme is expected to play a more important role in providing yen funds to the East Asian region than ever, which may be conducive to the use of the yen in the region. Furthermore, Japanese government of late re-started the further liberalization of domestic and foreign capital transactions. These ongoing changes in both domestic and international environments are likely to create the prerequisite condition for the international use of the yen. But, the fundamental question is whether or not these changing environments are enough for the further yen internationalization in the East Asian region.

Generally speaking, it is clearly important to push forward the liberalization processes of financial and capital markets for the further use of the yen. However, yendenominated financial flows in East Asia are in fact quite small. While capital flows between Japan and the East Asian economies increased substantially from the late 1980s, it is due to the expansion of offshore loans by Japanese banks to residents via Hong Kong and Singapore. Yen-denominated loans to the East Asian economies via Hong Kong
cannot be observed, which implies that yen-denominated financial transactions are quite small in the East Asian region. Japan's yen-denominated medium and long-term capital flows to the region are in fact very limited except for Japan's ODA loans and FDI. Furthermore, the financial convenience of U.S. dollar denominated transactions seems hard to decline owing to its vehicle role in foreign exchange trading and derivative markets, and it is likely to continue even after the completion of financial liberalization processes in Japan. Given the dominance of the U.S. dollar in financial transactions, it is even more crucial to build a trade and investment linkage between Japan and East Asia.

A good example is the case of the internationalization of the Deutsche Mark. The Deutsche Mark became a regional key currency in EU, based on the regional trade dependence being independent of the United States. This case contrasts markedly with the internationalization of the yen in East Asia: the East Asian economies depend heavily on the United States as their export markets, and their export dependence on Japan is in fact far smaller despite the recent increase in trade and investment between Japan and the East Asian economies. Furthermore, Japanese electronics exporters have a tendency to invoice their exports in U.S. dollars even when their export destination is the East Asian economies.

To the extent that the U.S. economy has a strong influence in the East Asian region, the dominance of the U.S. dollar is unlikely to be eroded. Such inertia will work particularly for the financial transactions owing to the vehicle role in foreign exchange markets. For the further internationalization of the yen, Japan should expand yeninvoiced trade with East Asia and become far more important market for East Asian exports to build more autonomous trade-investment linkages in the region.

## REFERENCES

Bank for International Settlements (BIS), 1992. "Recent Development in the External Payments and Financing of Selected East Asian Countries," International Banking and Financial Market Developments, August issue, Basle: Bank for International Settlements, pp.16-28.

Bank for International Settlements (BIS), 1999. "Recent Developments in the International Banking Business of Hong Kong," International Banking and Financial Market Developments, June issue, Basle: Bank for International Settlements, pp.13-14.

Bank of Japan (BOJ), 1999a. Economic Statistics Annual, Tokyo: Bank of Japan.
Bank of Japan (BOJ), 1999b. "BIS Tokei kara Mita Kokusai Kin-yu Shijo" [International Financial Markets from the viewpoint of the BIS Statistics], Nihon Ginko Chosa Geppo [BOJ Monthly Research Report], May, pp.25-58, (in Japanese).

Bank of Japan (BOJ), various issues. Balance of Payments Monthly, Tokyo: Bank of Japan.

Black, Stanley W., 1990. "The International Use of Currencies," in Yoshio Suzuki, Junichi Miyake, and Mitsuaki Okabe, eds., The Evolution of the International Monetary System: How Can Efficiency and Stability Be Attained ?, Tokyo: University of Tokyo Press, pp.175-194.

Chinn, Menzie D. and Jeffrey A. Frankel, 1994. "Financial Links around the Pacific Rim: 1982-1992," in Reuven Glick and Michael Hutchison, eds., Exchange Rate Policy and Interdependence: Perspectives from the Pacific Basin, UK: Cambridge University Press, pp.17-47.
de Brouwer, Gordon, 1999. Financial Integration in East Asia, UK: Cambridge University Press.

Deutsche Bundesbank, 1991. "The Significance of the Deutsche Mark as an Invoicing Currency in Foreign Trade," Monthly Report, November, pp.40-44.

Esaka, Taro, 1999. "Was It Really a Dollar Peg?: The Exchange Rate Policies of East Asian Countries, 1980-97," paper presented at the Joint Convention of Asian Economic Research, Kitakyushu, Japan, November 5-6.

Frankel, Jeffrey A., 1993. "Is Japan Creating a Yen Bloc in East Asia and the Pacific?," in Jeffrey A. Frankel and Miles Kahler, eds., Regionalism and Rivalry, Chicago: University of Chicago Press, pp.53-85.

Frankel, Jeffrey A. and Shang-Jin Wei, 1994. "Yen Bloc or Dollar Bloc? Exchange Rate Policies of the East Asian Economies," in Takatoshi Ito and Anne O. Krueger, eds., Macroeconomic Linkage, Chicago: University of Chicago Press, pp.295-329.

Gagnon, Joseph E. and Michael M. Knetter, 1995. "Markup Adjustment and Exchange Rate Fluctuations: Evidence from Panel Data on Automobile Exports," Journal of International Money and Finance, Vol.14, No.2, pp.289-310.

Glick, Reuven and Michael Hutchison, 1990. "Financial Liberalization in the Pacific Basin: Implications for Real Interest Rate Linkages," Journal of the Japanese and International Economies, 4, pp.36-48.

Institute of Foreign Exchange and Trade Research, 1995. Kokusai Kin-yu [International Financial Journal], November 15, Tokyo: Institute of Foreign Exchange and Trade Research.

International Centre for the Study of East Asian Development (ICSEAD), 2001. East Asian Economic Perspectives: Recent Trends and Prospects for Major Asian Economies, Vol.12, Special Issue, February, Kitakyushu: ICSEAD.

Ito, Takatoshi, 1994. "On the Possibility of a Yen Bloc," in Reuven Glick and Michael Hutchison, eds., Exchange Rate Policy and Interdependence: Perspectives from the Pacific Basin, Cambridge: Cambridge University Press, pp.317-343.

Iwami, Toru, 1995. Japan in the International Financial System, London: Macmillan.
Kamikawa, Takao, 1992. "EC Tsuka Togo to Kokusai Tsuka Shisutemu" [Monetary Integration in EC and the International Financial System], Economia, Vol.42, No.2/3, Yokohama: Yokohama National University, pp.18-38, (in Japanese).

Kawai, Masahiro, 1992. "Nihon no Saikenkoku ka" [Japan Becoming a Creditor Country], in Institute of Social Science, University of Tokyo, ed., Gendai Nihon Shakai 7, Kokusai ka [Modern Japanese Society 7, Internationalization], Tokyo: University of Tokyo Press, pp.87-134, (in Japanese).

Knetter, Michael M., 1993. "International Comparison of Pricing-to-Market Behavior," American Economic Review, 83, pp.473-486.

Kohsaka, Akira, 1996. "Interdependence through Capital Flows in Pacific Asia and the Role of Japan," in Takatoshi Ito and Anne O. Krueger eds., Financial Deregulation and Integration in East Asia, Chicago: University of Chicago Press, pp.107-142.

Krugman, Paul R., 1984. "The International Role of the Dollar: Theory and Prospect," in John F. O. Bilson and Richard C. Marston, eds., Exchange Rate Theory and Practice, Chicago: University of Chicago Press, pp.261-278.

Ministry of Finance (MOF), 1999. Annual Report of the International Finance, Tokyo: Kinzai Institute for Financial Affairs, Inc., (in Japanese).

Ministry of Foreign Affairs, 1998. Japan's Official Development Assistance Annual Report 1997, February, Tokyo: Association for Promotion of International Cooperation.

Nakao, Shigeo, 1991. Japan Money no Uchimaku [Inside Japan's Money], Tokyo: Iwanami Shoten, (in Japanese).

Ogawa, Eiji, 2001. "The US Dollar in the International Monetary System After the Asian Crisis," Paper presented at the conference on "Asian Crisis III," University of Tokyo, Japan.

Okuda, Hiroshi, 1996. Doru Taisei to Kokusai Tsuka [Dollar Standard and International Currency], Tokyo, Mineruba Shobo, (in Japanese).

Osugi, K, 1990. "Japan's Experience of Financial Deregulation since 1984 in an International Perspective," BIS Economic Papers, No.26, Basle: Bank for International Settlements.

Phylaktis, Kate, 1997. "Capital Market Integration in the Pacific-Basin Region: An Analysis of Real Interest Rate Linkages," Pacific-Basin Finance Journal, 5, pp.195213.

Phylaktis, Kate, 1999. "Capital Market Integration in the Pacific-Basin Region: An Impulse Response Analysis," Journal of International Money and Finance, 18, pp.267-287.

Sato, Kiyotaka, 1999. "The International Use of the Japanese Yen; The Case of Japan's Trade with East Asia," The World Economy, Vol.22, No.4, pp.547-584.

Sato, Kiyotaka, 2001. "Currency Invoicing of Japanese Exporters: Trade Aspects of the Yen Internationalization in East Asia," Working Paper Series, Vol.2001-1 (January), Kitakyushu: International Centre for the Study of East Asian Development.

Singapore Department of Statistics, various issues. Monthly Digest of Statistics Singapore, Singapore: Singapore National Printers Ltd.

Taguchi, Hiroo, 1994. "On the Internationalization of the Japanese Yen," in Takatoshi Ito and Anne O. Krueger, eds., Macroeconomic Linkage, Chicago: University of Chicago Press, pp.335-355.

Takeda, Masahiko and Philip Turner, 1992. "The Liberalization of Japan’s Financial Markets: Some Major Themes," BIS Economic Papers, No.34, Basle: Bank for International Settlements.

Tavlas, George S., 1991. "On the International Use of Currencies: The Case of the Deutsche Mark," Essays in International Finance, No.181.

Tavlas, George S., 1992. "Vehicle Currencies," in Peter Newman, Murray Milgate, and John Eatwell, eds., The New Palgrave Dictionary of Money and Finance, London: Macmillan, pp.754-757.

Tavlas, George S. and Yuzuru Ozeki, 1992. The Internationalization of Currencies: An Appraisal of the Japanese Yen, Occasional Paper, 90, Washington, D.C.: International Monetary Fund.

World Trade Organization (WTO), various years. Annual Report: International Trade Statistics, 1997 and 1999 issues, Geneva: World Trade Organization.
Table 1 BIS Reporting Banks' Claims on the East Asian Economies


[^16]Table 2 External Liabilities and Claims of Hong Kong Financial Institutions: Interbank Transactions

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Asia and | Liabilities | 321 | 521 | 1,205 | 1,527 | 1,790 | 2,377 | 2,583 | 2,582 | 2,627 | 3,167 | 3,296 | 2,865 | 2,853 | 2,044 | 1,631 | 1,162 |
| Pacific | Claims | 311 | 608 | 1,249 | 1,521 | 1,683 | 2,049 | 1,904 | 1,757 | 1,626 | 2,118 | 2,046 | 1,742 | 1,807 | 1,630 | 1,493 | 1,442 |
| China | Liabilities | 18 | 19 | 40 | 34 | 32 | 62 | 61 | 77 | 88 | 126 | 106 | 163 | 159 | 133 | 129 | 174 |
|  | Claims | 9 | 11 | 28 | 43 | 33 | 48 | 75 | 81 | 101 | 129 | 172 | 222 | 262 | 196 | 157 | 147 |
| J apan | Liabilities | 84 | 258 | 927 | 1,243 | 1,482 | 2,014 | 2,214 | 2,191 | 2,209 | 2,686 | 2,785 | 2,303 | 2,267 | 1,538 | 1,195 | 669 |
|  | Claims | 98 | 354 | 968 | 1,215 | 1,357 | 1,653 | 1,475 | 1,304 | 1,141 | 1,483 | 1,286 | 910 | 957 | 787 | 782 | 705 |
| Singapore | Liabilities | 156 | 187 | 178 | 183 | 208 | 213 | 208 | 231 | 250 | 256 | 271 | 263 | 274 | 219 | 167 | 161 |
|  | Claims | 109 | 138 | 135 | 146 | 166 | 210 | 171 | 168 | 164 | 210 | 242 | 233 | 255 | 357 | 287 | 329 |
| North | Liabilities | 56 | 72 | 75 | 85 | 95 | 101 | 89 | 88 | 91 | 93 | 101 | 118 | 123 | 95 | 70 | 64 |
| America | Claims | 55 | 68 | 77 | 83 | 86 | 99 | 107 | 117 | 100 | 108 | 147 | 112 | 109 | 98 | 130 | 151 |
| Caribbean | Liabilities | 33 | 54 | 61 | 64 | 54 | 71 | 76 | 53 | 47 | 47 | 49 | 67 | 92 | 66 | 56 | 56 |
|  | Claims | 50 | 74 | 81 | 75 | 95 | 93 | 115 | 114 | 118 | 84 | 84 | 79 | 60 | 44 | 73 | 75 |
| Western | Liabilities | 203 | 288 | 386 | 349 | 361 | 466 | 455 | 441 | 470 | 615 | 616 | 641 | 633 | 372 | 273 | 256 |
| Europe | Claims | 184 | 241 | 246 | 242 | 235 | 262 | 252 | 245 | 146 | 301 | 314 | 303 | 348 | 498 | 694 | 845 |
| Others | Liabilities | 24 | 28 | 30 | 29 | 39 | 29 | 31 | 24 | 25 | 20 | 30 | 33 | 26 | 29 | 18 | 22 |
|  | Claims | 13 | 15 | 18 | 18 | 20 | 14 | 21 | 20 | 118 | 16 | 15 | 11 | 13 | 22 | 19 | 22 |
| World Total | Liabilities | 637 | 962 | 1,756 | 2,054 | 2,340 | 3,045 | 3,234 | 3,188 | 3,260 | 3,941 | 4,092 | 3,724 | 3,727 | 2,607 | 2,049 | 1,558 |
|  | Claims | 611 | 1,005 | 1,671 | 1,939 | 2,118 | 2,517 | 2,398 | 2,252 | 2,107 | 2,626 | 2,605 | 2,246 | 2,337 | 2,292 | 2,409 | 2,535 |

## Notes:

1) End of year figures.
2) Hong K ong financial institutions include licensed banks, restricted licensed banks and deposit-taking companies.
3) China excludes figures for Taiwan.

## Sources:

Hong K ong, Census and Statistics Department, Hong Kong Monthly Digest of Statistics, various issues.
Hong K ong Monetary Authority, Monthly Statistical Bulletin, various issues.

Table 3 Assets and Liabilities of J apan Offshore Market ( OM)
(Billion U.S. dollars)


Table 3 (Continued) Assets and Liabilities of J apan Offshore Market (J OM)
(Billion U.S. dollars)

|  |  | Assets |  |  |  |  |  | L iabilities |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Balance |  | Denominated in Foreign Currency |  | Denominated in yen |  |  | Total Balance |  | Denominated in Foreign Currency |  | Denominated in yen |  |
|  |  |  | To Nonresidents |  | To Nonresidents |  | To Nonresidents |  |  | To Nonresidents |  | To Nonresidents |  | To Nonresidents |
| Inter-Office | 1986 | 71.0 | 71.0 | 58.6 | 58.6 | 12.4 | 12.4 | Inter-Office | 73.5 | 73.5 | 57.5 | 57.5 | 16.0 | 16.0 |
| Accounts | 1987 | 133.8 | 133.8 | 94.0 | 94.0 | 39.7 | 39.7 | Accounts | 86.0 | 86.0 | 53.5 | 53.5 | 32.5 | 32.5 |
|  | 1988 | 222.4 | 222.4 | 142.3 | 142.3 | 80.1 | 80.1 |  | 111.0 | 111.0 | 51.6 | 51.6 | 59.4 | 59.4 |
|  | 1989 | 308.2 | 308.2 | 182.4 | 182.4 | 125.8 | 125.8 |  | 100.0 | 100.0 | 46.0 | 46.0 | 54.0 | 54.0 |
|  | 1990 | 334.3 | 334.3 | 211.4 | 211.4 | 122.8 | 122.8 |  | 87.3 | 87.3 | 41.9 | 41.9 | 45.4 | 45.4 |
|  | 1991 | 330.4 | 330.4 | 182.6 | 182.6 | 147.8 | 147.8 |  | 98.0 | 98.0 | 38.5 | 38.5 | 59.5 | 59.5 |
|  | 1992 | 307.1 | 307.1 | 152.6 | 152.6 | 154.4 | 154.4 |  | 79.7 | 79.7 | 36.9 | 36.9 | 42.8 | 42.8 |
|  | 1993 | 291.1 | 291.1 | 120.8 | 120.8 | 170.3 | 170.3 |  | 63.4 | 63.4 | 32.0 | 32.0 | 31.3 | 31.3 |
|  | 1994 | 313.1 | 313.1 | 119.6 | 119.6 | 193.5 | 193.5 |  | 65.0 | 65.0 | 33.0 | 33.0 | 31.9 | 31.9 |
|  | 1995 | 496.5 | 496.5 | 150.2 | 150.2 | 346.4 | 346.4 |  | 83.2 | 83.2 | 42.6 | 42.6 | 40.5 | 40.5 |
|  | 1996 | 470.8 | 470.8 | 146.0 | 146.0 | 324.8 | 324.8 |  | 73.9 | 73.9 | 48.0 | 48.0 | 25.9 | 25.9 |
|  | 1997 | 536.2 | 536.2 | 186.7 | 186.7 | 349.4 | 349.4 |  | 82.3 | 82.3 | 51.7 | 51.7 | 30.6 | 30.6 |
|  | 1998 | 481.4 | 481.4 | 216.6 | 216.6 | 264.8 | 264.8 |  | 47.9 | 47.9 | 36.9 | 36.9 | 11.0 | 11.0 |
|  | 1999 | 307.8 | 307.8 | 127.4 | 127.4 | 180.4 | 180.4 |  | 61.2 | 61.2 | 49.7 | 49.7 | 11.5 | 11.5 |
|  | 2000 | 258.8 | 258.8 | 107.5 | 107.5 | 151.3 | 151.3 |  | 104.3 | 104.3 | 91.1 | 91.1 | 13.3 | 13.3 |
| Total | 1986 | 93.7 | 88.8 | 73.3 | 69.5 | 20.4 | 19.2 | Total | 92.8 | 88.0 | 73.3 | 69.7 | 19.5 | 18.3 |
| Assets | 1987 | 253.3 | 199.8 | 142.3 | 128.5 | 101.0 | 71.3 | Liabilities | 242.4 | 198.8 | 150.5 | 136.7 | 91.9 | 62.1 |
|  | 1988 | 414.2 | 329.7 | 223.7 | 199.9 | 190.4 | 129.8 |  | 412.5 | 327.0 | 240.2 | 216.1 | 172.3 | 110.9 |
|  | 1989 | 607.6 | 449.6 | 293.3 | 246.5 | 314.2 | 203.2 |  | 541.0 | 383.4 | 300.4 | 253.6 | 240.7 | 129.8 |
|  | 1990 | 605.0 | 473.4 | 331.6 | 280.3 | 273.4 | 193.0 |  | 536.2 | 403.9 | 333.6 | 282.1 | 202.7 | 121.8 |
|  | 1991 | 633.8 | 473.3 | 257.7 | 229.7 | 376.2 | 243.6 |  | 517.9 | 357.8 | 275.7 | 248.0 | 242.2 | 109.8 |
|  | 1992 | 624.7 | 471.0 | 231.4 | 202.4 | 393.3 | 268.6 |  | 460.0 | 306.6 | 263.4 | 234.5 | 196.7 | 72.2 |
|  | 1993 | 661.6 | 490.2 | 213.7 | 178.0 | 448.0 | 312.2 |  | 446.8 | 274.7 | 246.7 | 210.2 | 200.0 | 64.5 |
|  | 1994 | 726.2 | 547.3 | 225.9 | 184.9 | 500.4 | 362.4 |  | 465.8 | 287.0 | 261.7 | 220.6 | 204.1 | 66.4 |
|  | 1995 | 928.7 | 716.2 | 238.1 | 208.5 | 690.6 | 507.7 |  | 531.4 | 318.0 | 228.1 | 198.3 | 303.3 | 119.8 |
|  | 1996 | 778.2 | 627.1 | 226.9 | 195.5 | 551.3 | 431.6 |  | 474.2 | 322.1 | 255.3 | 223.7 | 218.9 | 98.3 |
|  | 1997 | 809.6 | 687.5 | 277.7 | 241.0 | 531.9 | 446.6 |  | 413.2 | 290.9 | 230.3 | 193.7 | 182.9 | 97.3 |
|  | 1998 | 646.3 | 565.5 | 271.7 | 251.2 | 374.6 | 314.3 |  | 264.7 | 184.0 | 134.1 | 113.9 | 130.5 | 70.1 |
|  | 1999 | 454.6 | 395.3 | 177.0 | 164.4 | 277.6 | 230.9 |  | 215.4 | 156.7 | 106.1 | 93.3 | 109.3 | 63.4 |
|  | 2000 | 454.1 | 393.5 | 191.0 | 167.8 | 263.2 | 225.7 |  | 289.3 | 228.8 | 181.0 | 157.8 | 108.3 | 71.0 |

Notes: 1) End of period data except for 1987 which is the end of J anuary 1988 data.
2) Total assets of the 1998-2000 data include the amount of securities which is not shown in the table since it is negligible.

Sources:
Gaikoku Kawase Boeki Kenkyukai [Institute of Foreign Exchange and Trade Research], Kokusai Kin-yu [International Finance] ournal], various issues;
Ministry of Finance (MOF) website (http://www.mof.go.jp/1c007.htm).

Table 4 External Claims on Non-Bank Customers: Hong Kong Financial Institutions

| (HK \$ billion) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
| Asia and Pacific | 89.2 | 104.5 | 274.7 | 340.9 | 519.5 | 927.0 | 1,288.4 | 1,426.1 | 1,600.0 | 1,758.5 | 2,101.8 | 2,020.0 | 1,812.2 | 1,124.1 | 836.9 | 444.7 |
| China | 5.3 | 10.4 | 20.9 | 36.9 | 46.0 | 48.5 | 45.6 | 53.1 | 53.6 | 59.7 | 62.6 | 67.3 | 66.9 | 47.3 | 36.1 | 28.0 |
| Taiwan | 6.1 | 2.9 | 5.2 | 5.2 | 4.5 | 4.0 | 3.7 | 4.3 | 5.0 | 5.4 | 7.8 | 8.5 | 6.4 | 5.9 | 8.2 | 7.9 |
| Indonesia | 12.3 | 13.1 | 12.9 | 11.6 | 13.6 | 15.0 | 15.9 | 16.1 | 16.3 | 16.5 | 18.8 | 22.6 | 24.2 | 15.7 | 10.0 | 7.4 |
| J apan | 4.1 | 14.0 | 164.6 | 205.8 | 363.9 | 758.4 | 1,105.0 | 1,232.3 | 1,407.0 | 1,563.4 | 1,869.0 | 1,766.2 | 1,544.6 | 933.5 | 691.3 | 304.6 |
| Malaysia | 4.4 | 6.1 | 5.3 | 6.0 | 5.7 | 5.4 | 5.2 | 5.3 | 5.7 | 4.2 | 7.1 | 9.1 | 9.4 | 5.8 | 3.4 | 5.6 |
| Philippines | 7.7 | 7.0 | 8.1 | 7.5 | 7.2 | 5.3 | 3.3 | 3.4 | 3.2 | 3.6 | 5.3 | 8.6 | 15.4 | 13.9 | 12.9 | 12.2 |
| Singapore | 2.3 | 1.8 | 1.2 | 2.1 | 2.3 | 4.1 | 2.9 | 2.6 | 3.0 | 3.2 | 3.1 | 4.6 | 9.1 | 6.3 | 4.7 | 5.5 |
| K orea | 19.1 | 18.0 | 18.5 | 16.2 | 20.9 | 19.6 | 21.8 | 24.4 | 23.9 | 30.5 | 38.4 | 50.0 | 56.6 | 31.7 | 20.8 | 21.6 |
| Thailand | 9.8 | 8.6 | 11.6 | 12.8 | 14.4 | 18.5 | 31.9 | 35.5 | 29.7 | 30.3 | 37.5 | 42.0 | 31.4 | 17.8 | 11.9 | 8.4 |
| North America | 3.6 | 5.1 | 10.6 | 17.1 | 20.8 | 26.5 | 46.0 | 47.5 | 58.0 | 85.1 | 78.2 | 68.3 | 67.5 | 69.4 | 72.3 | 87.7 |
| Caribbean | 20.0 | 22.5 | 24.8 | 21.4 | 21.0 | 25.4 | 28.8 | 33.7 | 36.7 | 44.7 | 52.2 | 60.8 | 75.9 | 63.3 | 47.3 | 55.6 |
| Western Europe | 13.8 | 17.4 | 27.0 | 33.9 | 43.0 | 49.2 | 61.2 | 58.4 | 60.5 | 56.0 | 62.5 | 64.8 | 73.2 | 64.9 | 58.7 | 64.5 |
| Others | 21.3 | 20.5 | 21.5 | 22.3 | 19.2 | 22.3 | 26.3 | 25.5 | 23.1 | 23.3 | 22.2 | 21.5 | 20.2 | 18.7 | 23.4 | 31.6 |
| World Total | 147.9 | 170.0 | 358.6 | 435.6 | 623.5 | 1,050.4 | 1,450.7 | 1,591.2 | 1,778.3 | 1,967.7 | 2,316.9 | 2,235.3 | 2,049.1 | 1,340.4 | 1,038.6 | 684.1 |

Notes:

1) End of year figures
2) Hong K ong financial institutions include licensed banks, restricted licensed banks and deposit-taking companies.
3) China excludes figures for Taiwan.

## Sources:

Hong Kong, Census and Statistics Department, Hong Kong Monthly Digest of Statistics, various issues.
Hong Kong M onetary Authority, Monthly Statistical Bulletin, various issues.

Table 5 Euro-Yen Loans by Overseas Branches of Japanese Foreign Exchange Banks

| (Billion yen) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
| To Non-Residents | 1,399 | 2,385 | 3,253 | 3,321 | 3,946 | 3,121 | 2,835 | 2,583 | 2,309 | 2,309 | 2,225 | 2,323 | 2,434 |
| Short-term | 1,122 | 1,567 | 1,759 | 1,425 | 1,819 | 1,533 | 1,392 | 1,422 | 1,361 | 1,205 | 1,090 | 1,062 | 1,122 |
| Long-term | 277 | 818 | 1,494 | 1,896 | 2,126 | 1,588 | 1,433 | 1,161 | 948 | 1,104 | 1,135 | 1,261 | 1,312 |
| To Residents | 133 | 1,072 | 5,180 | 7,488 | 13,238 | 22,864 | 25,814 | 27,047 | 27,586 | 27,173 | 34,580 | 36,398 | 33,629 |
| Short-term | 133 | 1,072 | 5,180 | 7,488 | 10,955 | 15,123 | 12,976 | 12,322 | 12,432 | 13,204 | 20,898 | 23,369 | 21,041 |
| Long-term | - | - | - | - | 2,283 | 7,741 | 12,838 | 14,725 | 15,154 | 13,969 | 13,682 | 13,029 | 12,588 |

Sources: Ministry of Finance (J apan), Annual Report of International Finance Bureau, various years. Ministry of Finance (J apan), Annual Report of International Finance, 1997 and 1999 issues.

Table 6 J apan's Current and Long-Term Capital Account by Region (Millions of U.S. dollar)

| A. Southeast Asia |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current Balance | Long-Term Capital (LTC) Total |  |  | Direct Investments |  |  |  | Loans |  | Securities |  | Others |  |
|  |  |  |  |  | Trade Credits |  |  |  |  |  |  |
|  |  |  | Assets | Liabilities |  |  | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities |
| 1987 | 15,693 | $\triangle 11,486$ | $\triangle 5,958$ | $\triangle 5,528$ | $\triangle 2,234$ | 415 | 1,023 | - | $\triangle 4,133$ | 38 | 49 | $\triangle 5,975$ | $\triangle 663$ | $\triangle 6$ |
| 1988 | 17,357 | $\triangle 13,409$ | $\triangle 8,136$ | $\triangle 5,273$ | $\triangle 3,201$ | $\triangle 15$ | 768 | - | $\triangle 5,671$ | $\triangle 13$ | 394 | $\triangle 5,192$ | $\triangle 426$ | $\triangle 53$ |
| 1989 | 11,892 | $\triangle 4,108$ | $\triangle 11,744$ | 7,636 | $\triangle 5,691$ | 91 | 428 | $\triangle 1$ | $\triangle 5,181$ | 11,462 | $\triangle 442$ | $\triangle 3,904$ | $\triangle 858$ | $\triangle 12$ |
| 1990 | 14,225 | 22,552 | $\triangle 11,038$ | 33,590 | $\triangle 5,329$ | 72 | 1,476 | - | $\triangle 5,847$ | 34,039 | 245 | $\triangle 230$ | $\triangle 1,583$ | $\triangle 291$ |
| 1991 | 28,813 | 38,819 | $\triangle 9,198$ | 48,017 | $\triangle 2,996$ | 13 | 1,421 |  | $\triangle 5,587$ | 36,072 | $\triangle 905$ | 11,916 | $\triangle 1,131$ | 16 |
| 1992 | 39,576 | 12,181 | $\triangle 4,367$ | 16,548 | $\triangle 2,535$ | 124 | 1,520 | $\triangle 4$ | $\triangle 2,001$ | 14,344 | $\triangle 765$ | 2,049 | $\triangle 586$ | 35 |
| 1993 | 54,595 | $\triangle 986$ | $\triangle 4,763$ | 3,777 | $\triangle 2,344$ | 248 | 2,142 | $\triangle 11$ | $\triangle 4,017$ | 3,821 | $\triangle 14$ | $\triangle 318$ | $\triangle 530$ | 37 |
| 1994 | 64,324 | $\triangle 13,303$ | $\triangle 10,315$ | $\triangle 2,988$ | $\triangle 5,235$ | 135 | 1,081 | - | $\triangle 4,163$ | $\triangle 10,797$ | $\triangle 1,562$ | 7,564 | $\triangle 436$ | 110 |
| 1995 | 70,805 | $\triangle 12,174$ | $\triangle 13,195$ | 1,021 | $\triangle 7,743$ | 270 | 655 | $\triangle 6$ | $\triangle 3,686$ | $\triangle 1,456$ | $\triangle 1,372$ | 2,187 | $\triangle 1,049$ | 27 |
| B. Asian N/Es |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1987 | 18,006 | $\triangle 9,352$ | $\triangle 1,716$ | $\triangle 7,636$ | $\triangle 1,671$ | 349 | 373 |  | $\triangle 267$ | 37 | 255 | $\triangle 8,017$ | $\triangle 406$ | $\triangle 5$ |
| 1988 | 20,218 | $\triangle 7,997$ | $\triangle 2,851$ | $\triangle 5,182$ | $\triangle 2,071$ | 33 | $\triangle 307$ | - | $\triangle 347$ | $\triangle 13$ | 159 | $\triangle 5,196$ | $\triangle 249$ | $\triangle 6$ |
| 1989 | 17,151 | 2,520 | $\triangle 4,417$ | 6,937 | $\triangle 3,427$ | 88 | $\triangle 70$ | $\triangle 1$ | $\triangle 33$ | 11,462 | $\triangle 266$ | $\triangle 4,621$ | $\triangle 621$ | $\triangle 9$ |
| 1990 | 20,831 | 27,724 | $\triangle 5,145$ | 32,869 | $\triangle 2,640$ | 83 | 590 | - | $\triangle 2,365$ | 34,039 | $\triangle 47$ | $\triangle 1,267$ | 683 | 14 |
| 1991 | 33,721 | 44,714 | $\triangle 2,668$ | 47,382 | $\triangle 1,000$ | 9 | 593 | - | $\triangle 1,406$ | 36,069 | $\triangle 571$ | 11,287 | $\triangle 284$ | 17 |
| 1992 | 41,643 | 13,518 | 1,156 | 12,362 | $\triangle 617$ | 124 | 978 | $\triangle 4$ | 887 | 14,340 | $\triangle 231$ | $\triangle 2,132$ | 139 | 34 |
| 1993 | 51,049 | 3,651 | 1,277 | 2,374 | $\triangle 293$ | 242 | 1,309 | - | 59 | 3,810 | $\triangle 100$ | $\triangle 1,715$ | 302 | 37 |
| 1994 | 60,868 | $\triangle 6,544$ | $\triangle 2,460$ | $\triangle 4,084$ | $\triangle 1,614$ | 130 | 619 | - | $\triangle 887$ | $\triangle 10,795$ | $\triangle 505$ | 6,540 | $\triangle 73$ | 41 |
| 1995 | 63,861 | $\triangle 1,403$ | $\triangle 2,594$ | 1,191 | $\triangle 1,657$ | 294 | 483 | - | 30 | $\triangle 1,394$ | $\triangle 1,081$ | 2,268 | $\triangle 369$ | 24 |
| C. Others |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1987 | $\triangle 2,313$ | $\triangle 2,134$ | $\triangle 4,242$ | 2,108 | $\triangle 563$ | 66 | 650 | - | $\triangle 3,866$ | 1 | $\triangle 206$ | 2,042 | $\triangle 257$ | $\triangle 1$ |
| 1988 | $\triangle 2,861$ | $\triangle 5,412$ | $\triangle 5,285$ | $\triangle 91$ | $\triangle 1,130$ | $\triangle 48$ | 1,075 | - | $\triangle 5,324$ | - | 235 | 4 | $\triangle 177$ | $\triangle 47$ |
| 1989 | $\triangle 5,259$ | $\triangle 6,628$ | $\triangle 7,327$ | 699 | $\triangle 2,264$ | 3 | 498 | - | $\triangle 5,148$ | - | $\triangle 176$ | 717 | $\triangle 237$ | $\triangle 3$ |
| 1990 | $\triangle 6,606$ | $\triangle 5,172$ | $\triangle 5,893$ | 721 | $\triangle 2,689$ | $\triangle 11$ | 886 | - | $\triangle 3,482$ | - | 292 | 1,037 | $\triangle 2,266$ | $\triangle 305$ |
| 1991 | $\triangle 4,908$ | $\triangle 5,895$ | $\triangle 6,530$ | 635 | $\triangle 1,996$ | 4 | 828 | - | $\triangle 4,181$ | 3 | $\triangle 334$ | 629 | $\triangle 847$ | $\triangle 1$ |
| 1992 | $\triangle 2,067$ | $\triangle 1,337$ | $\triangle 5,523$ | 4,186 | $\triangle 1,918$ | - | 542 | - | $\triangle 2,888$ | 4 | $\triangle 534$ | 4,181 | $\triangle 725$ | 1 |
| 1993 | 3,546 | $\triangle 4,637$ | $\triangle 6,040$ | 1,403 | $\triangle 2,051$ | 6 | 833 | $\triangle 11$ | $\triangle 4,076$ | 11 | 86 | 1,397 | $\triangle 832$ | 0 |
| 1994 | 3,456 | $\triangle 6,759$ | $\triangle 7,855$ | 1,096 | $\triangle 3,621$ | 5 | 462 | - | $\triangle 3,276$ | $\triangle 2$ | $\triangle 1,057$ | 1,024 | $\triangle 363$ | 69 |
| 1995 | 6,944 | $\triangle 10,771$ | $\triangle 10,601$ | $\triangle 170$ | $\triangle 6,086$ | $\triangle 24$ | 172 | $\triangle 6$ | $\triangle 3,716$ | $\triangle 62$ | $\triangle 291$ | $\triangle 81$ | $\triangle 680$ | 3 |

Notes: 1) Negative figures $(\triangle)$ shows outflow of capital (an increase in Assets or a decrease in Liabilities). " - "denotes no figures or not available. 2) Southeast Asia is the sum of Asian NIEs and Others and consists of 21countries (or areas).

Sourct: Bank of J apan, Balance of Payments Monthly, various issues.

Table 7 Currency Composition of External Debt: Selected Asian countries

|  | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Indonesiá |  |  |  |  |  |  |  |  |  |  |
| Total (Billion US\$) | 15.0 | 15.9 | 18.5 | 21.6 | 22.3 | 26.8 | 32.9 | 41.4 | 41.3 | 40.9 |
| J apanese Yen (Share, \%) | 20.0 | 19.3 | 21.0 | 23.3 | 25.0 | 31.7 | 33.9 | 39.4 | 39.3 | 35.2 |
| U.S. Dollar (Share, \%) | 43.5 | 44.4 | 43.1 | 42.3 | 41.4 | 30.7 | 26.0 | 19.2 | 18.5 | 19.5 |
| Korea |  |  |  |  |  |  |  |  |  |  |
| Total (Billion US\$) | 15.9 | 18.4 | 20.2 | 22.2 | 23.8 | 28.3 | 29.4 | 24.5 | 21.3 | 17.4 |
| J apanese Y en (Share, \%) | 16.6 | 14.1 | 12.3 | 12.5 | 12.8 | 16.7 | 22.0 | 27.2 | 29.5 | 26.6 |
| U.S. Dollar (Share, \%) | 53.5 | 60.2 | 63.7 | 64.4 | 66.0 | 60.3 | 49.4 | 33.8 | 32.4 | 35.1 |
| Malaysia |  |  |  |  |  |  |  |  |  |  |
| Total (Billion US\$) | 4.0 | 5.7 | 8.2 | 11.9 | 13.2 | 14.7 | 16.6 | 18.0 | 16.1 | 14.5 |
| J apanese Y en (Share, \%) | 19.0 | 16.9 | 13.3 | 14.2 | 21.2 | 26.4 | 30.4 | 35.7 | 37.1 | 36.6 |
| U.S. Dollar (Share, \%) | 38.0 | 51.5 | 62.3 | 65.8 | 61.5 | 50.6 | 45.0 | 36.3 | 35.6 | 34.2 |
| Philippines |  |  |  |  |  |  |  |  |  |  |
| Total (Billion US\$) | 6.4 | 7.5 | 8.8 | 10.5 | 11.2 | 13.8 | 19.3 | 23.5 | 23.5 | 23.0 |
| J apanese Yen (Share, \%) | 22.0 | 20.6 | 19.2 | 20.0 | 20.0 | 24.9 | 25.5 | 65.2 | 40.5 | 32.6 |
| U.S. Dollar (Share, \%) | 51.6 | 51.1 | 53.9 | 51.2 | 52.7 | 47.8 | 48.1 | 42.4 | 34.7 | 36.9 |
| Thailand |  |  |  |  |  |  |  |  |  |  |
| Total (Billion US\$) | 3.9 | 5.0 | 6.0 | 6.9 | 7.2 | 9.8 | 11.5 | 14.0 | 13.4 | 12.4 |
| J apanese Y en (Share, \%) | 25.5 | 23.2 | 24.0 | 27.3 | 29.2 | 36.1 | 39.9 | 43.1 | 43.5 | 40.9 |
| U.S. Dollar (Share, \%) | 39.7 | 40.5 | 38.0 | 32.5 | 29.9 | 25.5 | 20.6 | 17.8 | 20.8 | 23.6 |
| Total of Five Countries |  |  |  |  |  |  |  |  |  |  |
| Total (Billion US\$) | 45.2 | 52.4 | 61.7 | 73.0 | 77.8 | 93.5 | 109.7 | 121.5 | 115.6 | 108.1 |
| J apanese Y en (Share, \%) | 19.5 | 17.8 | 17.2 | 18.5 | 20.3 | 25.8 | 29.3 | 36.0 | 37.9 | 35.7 |
| U.S. Dollar (Share, \%) | 47.3 | 51.3 | 53.4 | 53.2 | 52.9 | 44.7 | 38.5 | 29.0 | 27.0 | 28.1 |

Not : Public and publicly guaranteed debt, which includes both official and private debt, fixed-rate as well as variable-rate debt
Sourcє: Adapted from Tavlas and Ozeki (1992, Table 24).

## Table 8 J apan's External Bank Loans: Medium/L ong-term

|  | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| International Organization | 9 | 14 | 16 | 16 | 14 | 13 | 14 | 11 | 11 | 3 | 1 | 1 | 1 |
| OECD | 297 | 422 | 711 | 1,093 | 1,471 | 1,922 | 2,000 | 1,982 | 1,734 | 1,668 | 1,791 | 1,778 | 1,560 |
| East Europe | 50 | 78 | 99 | 111 | 115 | 77 | 69 | 64 | 50 | 26 | 22 | 7 | 12 |
| Latin America | 253 | 282 | 276 | 274 | 266 | 214 | 215 | 238 | 218 | 160 | 171 | 189 | 231 |
| Asia | 94 | 118 | 135 | 186 | 253 | 328 | 386 | 399 | 423 | 547 | 626 | 623 | 659 |
| Mid/Near East | 5 | 8 | 8 | 8 | 10 | 11 | 21 | 28 | 27 | 24 | 22 | 16 | 25 |
| Africa | 21 | 26 | 27 | 30 | 30 | 29 | 29 | 31 | 31 | 31 | 34 | 41 | 39 |
| Others | 1 | 1 | 2 | 2 | 5 | 5 | 7 | 9 | 9 | 6 | 5 | 5 | 7 |
| Total | 731 | 948 | 1,274 | 1,720 | 2,165 | 2,599 | 2,741 | 2,762 | 2,498 | 2,465 | 2,672 | 2,660 | 2,534 |


| International Organization | 1,861 | 1,845 | 2,093 | 2,226 | 2,302 | 2,307 | 2,208 | 2,119 | 1,974 | 1,758 | 1,657 | 1,467 | 1,264 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OECD | 3,227 | 4,026 | 5,367 | 5,805 | 7,253 | 8,016 | 7,672 | 6,698 | 6,220 | 6,722 | 6,928 | 6,888 | 6,157 |
| East Europe | 575 | 676 | 677 | 667 | 676 | 482 | 481 | 407 | 315 | 143 | 93 | 46 | 16 |
| Latin America | 1,226 | 1,586 | 2,010 | 2,306 | 2,351 | 1,460 | 1,362 | 1,280 | 1,035 | 1,134 | 949 | 1,167 | 1,371 |
| Asia | 1,449 | 1,931 | 2,326 | 2,493 | 2,576 | 2,393 | 2,321 | 1,922 | 1,733 | 1,657 | 1,511 | 1,304 | 1,375 |
| Mid/Near East | 21 | 18 | 21 | 20 | 25 | 20 | 21 | 14 | 25 | 23 | 22 | 18 | 19 |
| Africa | 478 | 525 | 491 | 503 | 432 | 384 | 340 | 315 | 269 | 254 | 249 | 217 | 205 |
| Others | 6 | 13 | 15 | 18 | 41 | 28 | 34 | 31 | 33 | 47 | 22 | 21 | 18 |
| Total | 8,842 | 10,619 | 13,000 | 14,038 | 15,657 | 15,090 | 14,439 | 12,786 | 11,604 | 11,738 | 11,431 | 11,128 | 10,424 |

Nott: Y ear-end figures. Loans in yen include euro-yen loans.
Sources: MOF, Annual Report of the International Finance Bureau and Annual Report of International Finance, various issues.

Table 9 Currency Composition of International Bond Issues

|  | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total (US\$ Billion) | 38.0 | 48.0 | 75.5 | 77.2 | 109.5 | 163.2 | 227.1 | 180.8 | 227.2 |
| U.S. Dollar | 16.0 | 29.0 | 48.3 | 43.9 | 69.6 | 101.1 | 124.9 | 65.5 | 84.6 |
| Deutsche Mark | 8.4 | 2.6 | 5.4 | 6.7 | 6.7 | 11.2 | 17.1 | 15.0 | 23.7 |
| Yen | 1.5 | 2.7 | 3.9 | 4.1 | 6.1 | 12.9 | 23.7 | 26.7 | 22.6 |
| Sterling | 1.0 | 0.5 | 2.0 | 3.0 | 5.6 | 6.7 | 11.0 | 15.0 | 24.0 |
| French Franc | 0.9 | 0.5 | - | - | - | 1.1 | 3.5 | 1.8 | 2.3 |
| Total (Share, \%) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| U.S. Dollar | 42.2 | 60.4 | 63.9 | 57.0 | 63.6 | 62.0 | 55.0 | 36.2 | 37.2 |
| Deutsche Mark | 22.1 | 5.4 | 7.1 | 8.6 | 6.2 | 6.9 | 7.5 | 8.3 | 10.4 |
| Yen | 4.1 | 5.7 | 5.2 | 5.3 | 5.5 | 7.9 | 10.4 | 14.8 | 9.9 |
| Sterling | 2.6 | 1.1 | 2.6 | 3.9 | 5.1 | 4.1 | 4.8 | 8.3 | 10.6 |
| French Franc | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.6 | 1.5 | 1.0 | 1.0 |


|  |  | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total (US\$ Billion) | 255.7 | 229.9 | 308.7 | 333.7 | 481.0 | 428.6 | 467.3 | 708.8 | 831.6 |
| U.S. Dollar | 126.9 | 79.9 | 96.0 | 126.4 | 183.1 | 164.4 | 176.8 | 309.2 | 407.2 |
| Deutsche Mark | 16.4 | 18.3 | 20.5 | 33.8 | 54.7 | 31.6 | 72.7 | 100.1 | 130.2 |
| Yen | 23.8 | 30.7 | 41.2 | 41.1 | 59.6 | 78.5 | 82.5 | 76.7 | 45.8 |
| Sterling | 19.7 | 21.2 | 25.9 | 23.3 | 42.7 | 30.4 | 21.6 | 51.8 | 68.6 |
| French Franc | 4.5 | 9.4 | 17.0 | 24.3 | 39.9 | 27.4 | 12.7 | 46.1 | 49.8 |
| Total (Share, \%) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| U.S. Dollar | 49.6 | 34.8 | 31.1 | 37.9 | 38.1 | 38.4 | 37.8 | 43.6 | 49.0 |
| Deutsche Mark | 6.4 | 8.0 | 6.6 | 10.1 | 11.4 | 7.4 | 15.6 | 14.1 | 15.7 |
| Yen | 9.3 | 13.4 | 13.3 | 12.3 | 12.4 | 18.3 | 17.7 | 10.8 | 5.5 |
| Sterling | 7.7 | 9.2 | 8.4 | 7.0 | 8.9 | 7.1 | 4.6 | 7.3 | 8.2 |
| French Franc | 1.8 | 4.1 | 5.5 | 7.3 | 8.3 | 6.4 | 2.7 | 6.5 | 6.0 |

Source: OECD, Financial Market Trends, various issues.

## Table 10 International Bond Issues by the East Asian Economies

## Millions of US Dollars

|  | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Euro Bonds | $1,577.0$ | $1,377.6$ | 820.0 | $2,031.1$ | $2,575.4$ | $2,342.1$ | $13,569.9$ | $18,106.0$ |
| Y en | 230.5 | 510.0 | 0.0 | 0.0 | 216.8 | 391.8 | 879.0 | $1,214.7$ |
| U.S. Dollar | $1,058.0$ | 350.0 | 820.0 | $1,770.0$ | $2,270.7$ | $1,826.0$ | $12,575.5$ | $16,243.5$ |
| F oreign Bonds | 664.1 | 711.2 | 892.8 | 749.2 | $1,609.9$ | $3,370.6$ | $6,418.1$ | $7,031.9$ |
| Yen | 581.6 | 504.9 | 661.1 | 249.2 | 926.5 | 821.3 | $2,051.1$ | $3,491.8$ |
| U.S. Dollar | 0.0 | 0.0 | 200.0 | 500.0 | 450.0 | $2,170.0$ | $3,820.0$ | $2,300.0$ |
| Total | $2,241.1$ | $2,088.8$ | $1,712.8$ | $2,780.3$ | $4,185.3$ | $5,712.7$ | $19,988.0$ | $25,137.9$ |
| Yen | 812.1 | $1,014.9$ | 661.1 | 249.2 | $1,143.3$ | $1,213.1$ | $2,930.1$ | $4,706.5$ |
| U.S. Dollar | $1,058.0$ | 350.0 | $1,020.0$ | $2,270.0$ | $2,720.7$ | $3,996.0$ | $16,395.5$ | $18,543.5$ |

Share, \%

|  | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Euro Bonds (\%) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Yen (\%) | 14.6 | 37.0 | 0.0 | 0.0 | 8.4 | 16.7 | 6.5 | 6.7 |
| U.S. Dollar (\%) | 67.1 | 25.4 | 100.0 | 87.1 | 88.2 | 78.0 | 92.7 | 89.7 |
| F oreign Bonds (\%) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Yen (\%) | 87.6 | 71.0 | 74.0 | 33.3 | 57.6 | 24.4 | 32.0 | 49.7 |
| $\quad$ U.S. Dollar (\%) | 0.0 | 0.0 | 22.4 | 66.7 | 28.0 | 64.4 | 59.5 | 32.7 |
| Total (\%) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Yen (\%) | 36.2 | 48.6 | 38.6 | 9.0 | 27.3 | 21.2 | 14.7 | 18.7 |
| U.S. Dollar (\%) | 47.2 | 16.8 | 59.6 | 81.6 | 65.0 | 69.9 | 82.0 | 73.8 |

Source: OECD, Financial Statistics Monthly, various issues.

Table 11 J apan's Regional Balance of Payments

| Region | Year | Current Account |  |  |  | Capital and Financial Account |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Financial Account |  |  |  | Capital Account |  |
|  |  |  | Goods \& Services | Income | Current Transfers |  |  | Direct Investmen | Portfolio Investmen | Other Investment |  | Capital <br> Transfers |
| Asia | 1996 | 60,661 | 53,068 | 10,468 | $\triangle 2,874$ | $\triangle 12,903$ | $\triangle 11,992$ | $\triangle 10,116$ | 1,651 | $\triangle 3,527$ | $\triangle 911$ | $\triangle 917$ |
|  | 1997 | 71,473 | 62,569 | 13,729 | $\triangle 4,825$ | $\triangle 77,208$ | $\triangle 76,434$ | $\triangle 14,996$ | 9,270 | $\triangle 70,708$ | $\triangle 775$ | $\triangle 822$ |
|  | 1998 | 38,829 | 34,728 | 7,760 | $\triangle 3,659$ | $\triangle 108,720$ | $\triangle 107,561$ | $\triangle 9,784$ | $\triangle 31,879$ | $\triangle 65,898$ | $\triangle 1,159$ | $\triangle 1,174$ |
|  | 1999 | 28,756 | 30,882 | 1,299 | $\triangle 3,426$ | 54,972 | 56,190 | $\triangle 1,279$ | 22,473 | 34,996 | $\triangle 1,218$ | $\triangle 1,220$ |
|  | 2000 | 38,019 | 40,337 | 885 | $\triangle 3,203$ | 11,095 | 12,519 | $\triangle 1,278$ | 11,720 | 2,077 | $\triangle 1,424$ | $\triangle 1,410$ |
| Hong Kong | 1996 | 24,052 | 22,228 | 1,829 | $\triangle 5$ | 13,683 | 13,618 | $\triangle 766$ | 9,597 | 4,787 | 65 | 58 |
|  | 1997 | 31,526 | 28,793 | 2,828 | $\triangle 95$ | $\triangle 30,301$ | $\triangle 30,257$ | $\triangle 1,716$ | 17,410 | $\triangle 45,951$ | $\triangle 44$ | $\triangle 42$ |
|  | 1998 | 26,007 | 24,659 | 1,819 | $\triangle 471$ | $\triangle 64,612$ | $\triangle 64,658$ | $\triangle 745$ | $\triangle 21,847$ | $\triangle 42,065$ | 45 | 34 |
|  | 1999 | 19,924 | 20,800 | $\triangle 396$ | $\triangle 480$ | 37,530 | 37,598 | 758 | 24,985 | 11,855 | $\triangle 67$ | $\triangle 68$ |
|  | 2000 | 24,276 | 26,176 | $\triangle 1,211$ | $\triangle 240$ | 7,515 | 7,552 | 746 | 9,890 | $\triangle 3,048$ | $\triangle 37$ | $\triangle 27$ |
| Singapore | 1996 | 13,678 | 13,430 | 276 | $\triangle 28$ | 4,046 | 4,173 | $\triangle 1,259$ | 5,161 | 272 | $\triangle 127$ | $\triangle 129$ |
|  | 1997 | 17,176 | 16,254 | 846 | 76 | $\triangle 7,632$ | $\triangle 7,633$ | $\triangle 2,741$ | 9,689 | $\triangle 14,581$ | 1 | $\triangle 4$ |
|  | 1998 | 7,793 | 11,125 | $\triangle 3,354$ | 23 | $\triangle 17,775$ | $\triangle 17,761$ | $\triangle 875$ | $\triangle 831$ | $\triangle 16,055$ | $\triangle 14$ | $\triangle 23$ |
|  | 1999 | 7,205 | 10,300 | $\triangle 3,127$ | 32 | 27,969 | 28,111 | $\triangle 685$ | 5,026 | 23,770 | $\triangle 142$ | $\triangle 142$ |
|  | 2000 | 9,159 | 13,462 | $\triangle 4,259$ | $\triangle 43$ | $\triangle 4,224$ | $\triangle 4,055$ | 1,719 | 626 | $\triangle 6,399$ | $\triangle 170$ | $\triangle 170$ |
| Others | 1996 | 22,931 | 17,410 | 8,363 | $\triangle 2,841$ | $\triangle 30,632$ | $\triangle 29,783$ | $\triangle 8,091$ | $\triangle 13,107$ | $\triangle 8,586$ | $\triangle 849$ | $\triangle 846$ |
|  | 1997 | 22,771 | 17,522 | 10,055 | $\triangle 4,806$ | $\triangle 39,275$ | $\triangle 38,544$ | $\triangle 10,539$ | $\triangle 17,829$ | $\triangle 10,176$ | $\triangle 732$ | $\triangle 776$ |
|  | 1998 | 5,029 | $\triangle 1,056$ | 9,295 | $\triangle 3,211$ | $\triangle 26,333$ | $\triangle 25,142$ | $\triangle 8,164$ | $\triangle 9,201$ | $\triangle 7,778$ | $\triangle 1,190$ | $\triangle 1,185$ |
|  | 1999 | 1,627 | $\triangle 218$ | 4,822 | $\triangle 2,978$ | $\triangle 10,527$ | $\triangle 9,519$ | $\triangle 1,352$ | $\triangle 7,538$ | $\triangle 629$ | $\triangle 1,009$ | $\triangle 1,010$ |
|  | 2000 | 4,584 | 699 | 6,355 | $\triangle 2,920$ | 7,804 | 9,022 | $\triangle 3,743$ | 1,204 | 11,524 | $\triangle 1,217$ | $\triangle 1,213$ |

## Table 11(Continued) J apan's Regional Balance of Payments

B Financial Account: Assets and Liabilities (100 million yen)

| Region Year |  | Financial Account |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Assets Liabilities | Direct Investment |  | Portfol io Investment |  |  |  |  |  | Other Investment |  |  |  |  |  |
|  |  |  |  |  |  | Equity Securities |  | Debt Securities |  | Assets | Liabilities | Loans Assets | Liabilities | Trade Credits |  |
|  |  | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities | Assets | Liabilities |  |  |  |  | Assets | Liabilities |
| $\frac{\text { Region }}{\text { Asia }}$ | 1995 |  | $\triangle 79,863$ 74,218 | $\triangle 7,995$ | 303 | $\triangle 2,155$ | $\triangle 1,960$ | 0 | 3,418 | $\triangle 2,155$ | $\triangle 5,372$ | $\triangle$ 69,713 | 75,875 | $\triangle 79,242$ | 80,931 | $\triangle 1,033$ | 406 |
|  | 1996 |  | $\triangle 21,166 \quad 9,174$ | $\triangle 10,599$ | 483 | $\triangle 7,704$ | 9,354 | 2,196 | 6,458 | $\triangle 9,900$ | 2,896 | $\triangle 2,863$ | $\triangle 664$ | 7,865 | $\triangle 1,153$ | 702 | 399 |
|  | 1997 | $\triangle 79,709 \quad 3,275$ | $\triangle 15,867$ | 871 | 1,596 | 7,674 | 5,346 | $\triangle 3,749$ | $\triangle 3,750$ | 11,423 | $\triangle 65,438$ | $\triangle 5,270$ | $\triangle 54,486$ | $\triangle 7,488$ | $\triangle 829$ | $\triangle 330$ |
|  | 1998 | 42,241 $\triangle 149,803$ | $\triangle 10,289$ | 505 | 3,794 | $\triangle 35,672$ | 2,349 | $\triangle 2,731$ | 1,444 | $\triangle 32,942$ | 48,737 | $\triangle 114,635$ | 52,287 | $\triangle 116,555$ | $\triangle 730$ | $\triangle 2,941$ |
|  | 1999 | 106,451 $\triangle 50,261$ | $\triangle 2,234$ | 955 | $\triangle 1,960$ | 24,433 | $\triangle 1,965$ | 17,272 | 6 | 7,160 | 110,645 | $\triangle 75,648$ | 107,233 | $\triangle 74,124$ | $\triangle 106$ | 408 |
|  | 2000 | 13,723 $\triangle 1,204$ | $\triangle 2,342$ | 1,063 | $\triangle 159$ | -11,879 | $\triangle 2,099$ | 5,109 | 1,940 | 6,770 | 16,223 | $\triangle 14,146$ | 13,618 | $\triangle 9,350$ | 283 | 254 |
| Hong Kong | 1995 | $\triangle 43,670 \quad 73,510$ | $\triangle 312$ | 204 | $\triangle 718$ | 16,842 | 0 | 2,860 | $\triangle 718$ | 13,987 | $\triangle 42,640$ | 56,464 | $\triangle 50,041$ | 61,068 | 150 | 64 |
|  | 1996 | 1,650 11,967 | $\triangle 1,196$ | 430 | $\triangle 2,942$ | 12,539 | 2,174 | 6,260 | $\triangle 5,116$ | 6,278 | 5,788 | $\triangle 1,001$ | 13,041 | $\triangle 1,121$ | 200 | 157 |
|  | 1997 | $\triangle 30,560 \quad 303$ | $\triangle 2,130$ | 414 | $\triangle 2,543$ | 19,953 | 2,103 | $\triangle 2,785$ | $\triangle 4,645$ | 22,738 | $\triangle 25,887$ | $\triangle 20,064$ | $\triangle 19,518$ | $\triangle 20,773$ | 107 | $\triangle 435$ |
|  | 1998 | 63,373 $\triangle 128,031$ | $\triangle 1,043$ | 298 | $\triangle 521$ | $\triangle 21,327$ | 1,352 | $\triangle 2,127$ | $\triangle 1,873$ | $\triangle 19,200$ | 64,937 | $\triangle 107,002$ | 67,310 | $\triangle 109,589$ | 228 | 67 |
|  | 1999 | $56,459 \triangle 18,861$ | 180 | 577 | $\triangle 2,691$ | 27,675 | $\triangle 288$ | 16,588 | $\triangle 2,402$ | 11,087 | 58,969 | $\triangle 47,114$ | 57,766 | $\triangle 45,787$ | 218 | 65 |
|  | 2000 | $22,183 \triangle 14,632$ | 133 | 613 | $\triangle 1,206$ | 11,096 | $\triangle 1,800$ | 5,252 | 594 | 5,844 | 23,257 | $\triangle 26,341$ | 19,332 | $\triangle 23,592$ | $\triangle 133$ | $\triangle 26$ |
| Singapore | 19 | $\triangle 15,555 \quad 19,289$ | $\triangle 632$ | 4 | $\triangle 312$ | $\triangle 1,362$ | 0 | 473 | $\triangle 312$ | $\triangle 1,836$ | $\triangle 14,611$ | 20,674 | $\triangle 16,381$ | 21,190 | $\triangle 470$ | 32 |
|  | 1996 | $\triangle 2,450 \quad 6,624$ | $\triangle 1,227$ | 32 | $\triangle 214$ | 5,375 | 367 | 58 | $\triangle 581$ | 5,317 | $\triangle 1,009$ | 1,281 | 1,162 | 1,106 | $\triangle 17$ | 75 |
|  | 1997 | $\triangle 35,950 \quad 28,318$ | $\triangle 3,098$ | 357 | 389 | 9,300 | 839 | $\triangle 917$ | $\triangle 450$ | 10,217 | $\triangle 33,241$ | 18,660 | $\triangle 31,370$ | 17,605 | $\triangle 200$ | $\triangle 43$ |
|  | 1998 | $\triangle 5,922 \triangle 11,838$ | $\triangle 996$ | 120 | 1,775 | $\triangle 2,605$ | 541 | $\triangle 606$ | 1,234 | $\triangle 1,999$ | $\triangle 6,702$ | $\triangle 9,353$ | $\triangle 7,312$ | $\triangle 9,166$ | 62 | $\triangle 2,122$ |
|  | 1999 | 49,554 $\triangle 21,443$ | $\triangle 757$ | 73 | $\triangle 1,041$ | 6,067 | $\triangle 1,076$ | $\triangle 124$ | 35 | 6,191 | 51,352 | $\triangle 27,582$ | 50,531 | $\triangle 27,353$ | $\triangle 392$ | 202 |
|  | 2000 | $\triangle 13,956 \quad 9,901$ | 1,630 | 89 | $\triangle 889$ | 1,515 | $\triangle 147$ | $\triangle 167$ | $\triangle 742$ | 1,682 | $\triangle 14,697$ | 8,297 | $\triangle 13,181$ | 9,922 | $\triangle 388$ | 150 |
| Others | 1995 | $\triangle 20,638 \triangle 18,581$ | $\triangle 7,051$ | 95 | $\triangle 1,125$ | $\triangle 17,440$ | 0 | 85 | $\triangle 1,125$ | $\triangle 17,523$ | $\triangle 12,462$ | $\triangle 1,263$ | $\triangle 12,820$ | $\triangle 1,327$ | $\triangle 713$ | 310 |
|  | 1996 | $\triangle 20,366 \quad \triangle 9,417$ | $\triangle 8,176$ | 21 | $\triangle 4,548$ | $\triangle 8,560$ | $\triangle 345$ | 140 | $\triangle 4,203$ | $\triangle 8,699$ | $\triangle 7,642$ | $\triangle 944$ | $\triangle 6,338$ | $\triangle 1,138$ | 519 | 167 |
|  | 1997 | $\triangle 13,199 \triangle 25,346$ | $\triangle 10,639$ | 100 | 3,750 | $\triangle 21,579$ | 2,404 | $\triangle 47$ | 1,345 | $\triangle 21,532$ | $\triangle 6,310$ | $\triangle 3,866$ | $\triangle 3,598$ | $\triangle 4,320$ | $\triangle 736$ | 148 |
|  | 1998 | $\triangle 15,210 \quad \triangle 9,934$ | $\triangle 8,250$ | 87 | 2,540 | $\triangle 11,740$ | 456 | 2 | 2,083 | $\triangle 11,743$ | $\triangle 9,498$ | 1,720 | $\triangle 7,711$ | 2,200 | $\triangle 1,020$ | $\triangle 886$ |
|  | 1999 | $438 \quad \triangle 9,957$ | $\triangle 1,657$ | 305 | 1,772 | $2 \triangle 9,309$ | $\triangle 601$ | 808 | 2,373 | $\triangle 10,118$ | 324 | $\triangle 952$ | $\triangle 1,064$ | $\triangle 984$ | 68 | 141 |
|  | 2000 | 5,496 3,527 | $\triangle 4,105$ | 361 | 1,936 | $\triangle 732$ | $\triangle 152$ | 24 | 2,088 | $\triangle 756$ | 7,663 | 3,898 | 7,467 | 4,320 | 804 | 130 |

Not : Negative figures ( $\triangle$ ) in "Capital and Financial Account, (excluding Capital Transfers)" show outflow of capital (an increase in Assets or a decrease in Liabilities).
Sourct: Bank of J apan, Balance of Payments Monthly, various issues.

Table 12 Currency Compositions of Foreign Exchange Market Activity in April 1992, April 1995, and April 1998: Average Daily Turnover (\%; Billions of U.S. Dollars in Parentheses)
A. International Comparison: Top 10 Economies in April 1998

|  | Currency Share (\%): |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S. <br> Dollar | Deutsche J apanese |  | Pound Sterling | Local Currency | Others | Share,\% | (Billion US\$) |
|  |  | Mark | Yen |  |  |  |  |  |
| United Kingdom | 87.6 | 32.3 | 14.3 | 18.0 | - | 47.8 | 200.0 | $(1,274.6)$ |
| United States | 90.0 | 34.7 | 24.5 | 10.2 | - | 40.6 | 200.0 | (701.7) |
| J apan | 91.8 | 12.1 | 83.5 | 3.6 | - | 9.0 | 200.0 | (297.2) |
| Singapore | 94.8 | 20.2 | 23.3 | 5.8 | 12.7 | 43.3 | 200.0 | (278.0) |
| Germany | 85.7 | 65.9 | 8.2 | 7.8 | - | 32.4 | 200.0 | (188.6) |
| Switzerland | 83.1 | 34.8 | 13.7 | 7.7 | 38.7 | 22.1 | 200.0 | (163.4) |
| Hong Kong | 93.0 | 22.8 | 27.1 | 10.6 | 23.8 | 22.8 | 200.0 | (157.1) |
| France | 81.8 | 34.0 | 7.0 | 6.2 | 45.4 | 25.6 | 200.0 | (143.8) |
| Australia | 94.6 | 16.3 | 17.7 | 6.1 | 50.7 | 14.5 | 200.0 | (93.2) |
| Netherlands | 75.3 | 37.8 | 5.2 | 7.4 | 45.4 | 28.9 | 200.0 | (82.1) |
| Total* | 87.9 | 30.4 | 20.5 | 10.7 | 15.3 | 35.2 | 200.0 | $(3,963.2)$ |

B. Asian Financial Markets: April 1992, April 1995 and April 1998

| Market: | Year: | Currency Share (\%): |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | U.S. Dollar | Deutsche J apanese |  | Pound Sterling | Local Currency | Others | Share,\% | $\begin{gathered} \text { (Billion } \\ \text { US\$) } \\ \hline \end{gathered}$ |
|  |  |  | Mark | Yen |  |  |  |  |  |
| J apan | 1992 | 92.4 | 18.6 | 73.9 | 5.6 |  | 9.5 | 200.0 | (252.2) |
|  | 1995 | 93.7 | 15.9 | 81.1 | 2.2 | - | 7.0 | 200.0 | (322.6) |
|  | 1998 | 91.8 | 12.1 | 83.5 | 3.6 | - | 9.0 | 200.0 | (297.2) |
| Singapore | 1992 | 90.4 | 36.6 | 31.5 | 14.7 | 3.2 | 23.6 | 200.0 | (151.7) |
|  | 1995 | 90.9 | 31.9 | 27.9 | 7.6 | 5.6 | 36.1 | 200.0 | (210.8) |
|  | 1998 | 94.8 | 20.2 | 23.3 | 5.8 | 12.7 | 43.4 | 200.0 | (278.0) |
| Hong Kong | 1992 | 90.2 | 32.4 | 28.0 | 13.5 | 14.5 | 21.4 | 200.0 | (121.8) |
|  | 1995 | 93.3 | 28.5 | 31.1 | 7.9 | 17.0 | 22.2 | 200.0 | (180.4) |
|  | 1998 | 93.0 | 22.8 | 27.1 | 10.6 | 23.8 | 22.8 | 200.0 | (157.1) |

## Notes:

1. Data for April 1992, April 1995, and April 1998 are based on reported foreign exchange market turnover by country and currency net of local inter-dealer double-counting.
2. Because two currencies are involved in each transaction, the sum of transactions in individual currencies comes to twice the reported turnover. Therefore, the total currency composition adds up to 200 percent, and total amounts in parentheses also equal twice total transactions.
3. 10 largest countries are chosen in terms of total amount of transactions in Part A (International Comparison). Total* denotes the sum of 43 economies.

## Sources:

BIS, Central Bank Survey of Foreign Exchange Market Activity in April 1992, Basle, March 1993.
BIS, Central Bank Survey of Foreign Exchange and Derivative Market Activity 1995, Basle, May 1996.
BIS, Central Bank Survey of Foreign Exchange and Derivative Market Activity 1998, Basle, May 1999.

Table 13 Comparison of Currency Invoicing by Region: J apan and Germany (\%)
A. Currency Invoicing for Exports:

| Country |  | Currency Invoicing in: |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  | Exports to: | US dollar | Yen | D-Mark |
|  | United States | 37.0 | n.a. | 62.0 |
|  | W. Europe | 2.0 | n.a. | 80.0 |
|  | Others | 12.0 | n.a. | 82.0 |
| J apan (1989) | United States | 83.5 | 16.4 | n.a. |
|  | Southeast Asia | 53.6 | 43.5 | n.a. |
| J apan (M1998) | United States | 84.1 | 15.7 | n.a. |
|  | Southeast Asia | 48.7 | 48.4 | n.a. |

B. Currency Invoicing for Imports:

| Country |  | Currency Invoicing in |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  | Imports from: | US dollar | Yen | D-Mark |
|  | United States | 67.0 | n.a. | 14.0 |
|  | W. Europe | 11.0 | n.a. | 60.0 |
|  | Others | 37.0 | n.a. | 46.0 |
| J apan (1989) | United States | 89.5 | 10.2 | 0.1 |
|  | Southeast Asia | 79.0 | 19.5 | 0.1 |
| J apan (M1998) | United States | 83.0 | 16.9 | 0.0 |
|  | Southeast Asia | 71.6 | 26.7 | 0.2 |

Notes: M denotes March. "W. Europe" denotes Western Europe.
Sources:
MITI, Yushutsu Kakunin Tokei [Export Confirmation Statistics], various issues.
MITI, Yushutsu Kessai Tsukadate Doko Chosa [Export Settlement Currency Invoicing], variou:
MITI, Yunyu Hokoku Tokei [Import Report Statistics], various issues.
MITI, Yunyu K essai Tsukadate Doko Chosa [Import Settlement Currency Invoicing], various is Deutsche Bundesbank (1991).

Figure 1
HK External Loans toJ apanese Non-Bank Customers and Euro-Yen Impact Loans (Year-end Yen/Dollar Rate) (Sources: Tables 4 and 5.)



[^0]:    * Corresponding author. E-mail address: sato@icsead.or.jp. The research was supported by International Centre for the Study of East Asian Development and the Grant-in-Aid 12730045 for Encouragement of Young Scientists, Japan Society for the Promotion of Science. The author would like to thank Ms. Hiromi Asojima for her capable research assistance.

[^1]:    ${ }^{1}$ Among others, de Brouwer (1999), Phylaktis (1997, 1999), Chinn and Frankel (1994), and Glick and Hutchison (1990). Financial market integration is typically regarded as one of the conditions of an optimum currency area (OCA). Whereas the research on a yen currency bloc by applying the theory of OCA is important, it is beyond the scope of this paper. For this line of works, see Frankel (1993), Ito (1994) and Taguchi (1994).
    ${ }^{2}$ For a good review of changing patterns of capital flows in the Asian-Pacific region, see Kohsaka (1996). See also Okuda (1996), Chapter 6.

[^2]:    ${ }^{3}$ See, for example, Kawai (1992) and Nakao (1991).

[^3]:    ${ }^{4}$ BIS (1992), p.23. According to BOJ (1999a), the yen appreciated substantially from the end1983 (233.0 yen/U.S. dollar) to the end 1991 (125.25 yen/U.S. dollar).

[^4]:    ${ }^{5}$ An investigation of capital flows between Singapore and Japan is not conducted in this paper, since the Singapore statistics do not report the regional breakdown of external assets and liabilities of Asian Currency Units (Singapore Department of Statistics, various issues).
    ${ }^{6}$ See, for example, Osugi (1990) and Takeda and Turner (1992). We will discuss more on this later.

[^5]:    ${ }^{7}$ For further details, see Osugi (1990), Tavlas and Ozeki (1992) and MOF (1999).
    ${ }^{8}$ In April 1, 1989, the restrictions on upper limits of shifting funds from onshore to offshore accounts were abolished, which may lead to larger amounts of yen-denominated (total) assets than those of liabilities. The restrictions on shifting funds from offshore to onshore accounts were also relaxed at the same time (MOF, 1999).
    ${ }^{9}$ See Osugi (1990), Takeda and Turner (1992) and BIS (1999).

[^6]:    ${ }^{10}$ In Figure 1, yen-denominated Hong Kong external loans are calculated using the year-end yen/U.S. dollar exchange rate (BOJ, 1999a), given that 1U.S. dollar $=7.8$ Hong Kong dollar.

[^7]:    ${ }^{11}$ After the window guidance was abolished in June 1991, Japanese banks would have little reasons to continue Euro-yen impact loans via foreign branches instead of loans by domestic offices. However, according to Table 5, Euro-yen loans to residents increased somewhat in 1992-93 and significantly in 1995-96. It is difficult to explain such increase in Euro-yen loans, and further investigation should be necessary. One possible explanation is presented by Institute of Foreign Exchange and Trade Research (1995, p.87) that states that since interest rates of Euroyen impact loans tended to change more quickly in response to changes in official discount rate than domestic lending rates, demand for (short term) Euro-yen impact loans to residents increased when the official discount rate declined in 1995 and round-tripped transactions with Hong Kong were actively conducted. See also Figure 1. Hong Kong external claims on Japanese non-bank customers increased sharply in terms of the yen in 1995. Rigorous consideration of this statement will of course be required.

[^8]:    ${ }^{12}$ In this section, we focus mainly on the long-term capital account because the regional ${ }^{13}$ breakdown of the short-term capital account is not available from the BOJ (various issues).
    ${ }^{13}$ Southeast Asia consists of 21 countries (or economies) including the Asian NIEs, ASEAN4 and China.

[^9]:    ${ }^{14}$ Japan's ODA is composed of three categories, bilateral donations, contributions to international organizations and yen loans. The loan category of Japan's long-term capital account covers yen loans only.
    ${ }^{15}$ Ministry of Foreign Affairs (1998), Chart 68. See also ICSEAD (2001).

[^10]:    ${ }^{16}$ Ito (1994) also refers to this point. After the Asian currency crisis, Japan's official financial assistance (such as ODA loans and provision of yen funds through financial assistance under the New Miyazawa Initiative) gained more attention concerning the role of providing yen funds to the Asian economies that suffered from the financial turbulance. Such provision of yen funds is likely to facilitate the role of the yen in the region.

[^11]:    ${ }^{17}$ BOJ (1999b). Chart 5 of the BOJ paper indicates that banks located in Japan registered over U.S. $\$ 80$ billion of capital outflows in the fourth quarter of 1997, which was by far the largest in absolute amounts in the 1995-98 period. About a half of these outflows were denominated in the yen and more than one third were directed to offshore centers (including Hong Kong and Singapore).

[^12]:    ${ }^{18}$ See, for example, Frankel and Wei (1994) and Esaka (1999).
    ${ }^{19}$ See Ogawa (2001).

[^13]:    ${ }^{20}$ For the role of the vehicle currency, see, for example, Krugman (1984) and Tavlas (1992).
    ${ }^{21}$ See Sato (1999) for further details.

[^14]:    ${ }^{22}$ See, for example, Iwami (1995, Chapter 5), Tavlas (1991), and Kamikawa (1992).
    ${ }^{23}$ Iwami (1995, p.121) has pointed out that the high share of Deutsche Mark invoiced trade is based mainly on the competitiveness of Germany's machinery exports. See also Tavlas (1991, pp.20-26). For the studies on the PTM behavior of German exporters, see Knetter (1993) and Gagnon and Knetter (1995).

[^15]:    ${ }^{24}$ See WTO (various years). From the mid-1990s, around one third of electronics exports of the Asian NIEs are directed to the Untied States, although the corresponding share of Japan is far smaller.

[^16]:    Notes: 1) North America includes Caribbean offshore centers. Asia includes offshore centers in the Middle and Far East.
    Numbers in parenthesis are amounts of increase or decrease from the end of 1983 to the end of 1991 (billions of U.S. dollars). $3)$ * denotes amounts outstanding (billions of U.S. dollars). ** denotes a percentage of total claims (\%).
    \# denotes positions of banks in industrial reporting countries only.
    Source: Calculated from BIS, International Banking and Financial Market Developments, August 1992, pp.22-24.

